

# Virginia: 2002

Issued September 2005

EC02-31A-VA (RV)

## 2002 Economic Census

*Manufacturing*

Geographic Area Series



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Economics and Statistics Administration  
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# Introduction to the Economic Census

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## **PURPOSES AND USES OF THE ECONOMIC CENSUS**

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

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

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

## **INDUSTRY CLASSIFICATIONS**

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

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

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

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

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## **RELATIONSHIP TO HISTORICAL INDUSTRY CLASSIFICATIONS**

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

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

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

## **BASIS OF REPORTING**

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

## **GEOGRAPHIC AREA CODING**

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

## **AVAILABILITY OF ADDITIONAL DATA**

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

## **HISTORICAL INFORMATION**

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

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

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

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

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

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

#### **SOURCES FOR MORE INFORMATION**

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

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# Manufacturing

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## SCOPE

The Manufacturing sector (sector 31-33) comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the activity is appropriately classified in Sector 23, Construction.

Establishments in the manufacturing sector are often described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment. However, establishments that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public products made on the same premises from which they are sold, such as bakeries, candy stores, and custom tailors, may also be included in this sector. Manufacturing establishments may process materials or may contract with other establishments to process their materials for them. Both types of establishments are included in manufacturing.

The materials, substances, or components transformed by manufacturing establishments are raw materials that are products of agriculture, forestry, fishing, mining, or quarrying, as well as products of other manufacturing establishments. The materials used may be purchased directly from producers, obtained through customary trade channels, or secured without recourse to the market by transferring the product from one establishment to another, under the same ownership. The new product of a manufacturing establishment may be finished in the sense that it is ready for utilization or consumption, or it may be semifinished to become an input for an establishment engaged in further manufacturing. For example, the product of the alumina refinery is the input used in the primary production of aluminum; primary aluminum is the input to an aluminum wire drawing plant; and aluminum wire is the input for a fabricated wire product manufacturing establishment.

The subsectors in the manufacturing sector generally reflect distinct production processes related to material inputs, production equipment, and employee skills. In the machinery area, where assembling is a key activity, parts and accessories for manufactured products are classified in the industry of the finished manufactured item when they are made for separate sale. For example, a replacement refrigerator door would be classified with refrigerators and an attachment for a piece of metal working machinery would be classified with metal working machinery. However, components, input from other manufacturing establishments, are classified based on the production function of the component manufacturer. For example, electronic components are classified in Subsector 334, Computer and Electronic Product Manufacturing; and stampings are classified in Subsector 332, Fabricated Metal Product Manufacturing.

Manufacturing establishments often perform one or more activities that are classified outside the manufacturing sector of NAICS. For instance, almost all manufacturing has some captive research and development or administrative operations, such as accounting, payroll, or management. These captive services are treated the same as captive manufacturing activities. When the services are provided by separate establishments, they are classified to the NAICS sector where such services are primary, not in manufacturing.

The boundaries of manufacturing and the other sectors of the classification system can be somewhat blurry. The establishments in the manufacturing sector are engaged in the transformation of materials into new products. Their output is a new product. However, the definition of what constitutes a new product can be somewhat subjective. As clarification, the following activities are

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considered manufacturing in NAICS: milk bottling and pasteurizing; water bottling and processing; fresh fish packaging (oyster shucking, fish filleting); apparel jobbing (assigning of materials to contract factories or shops for fabrication or other contract operations); as well as contracting on materials owned by others; printing and related activities; ready-mixed concrete production; leather converting; grinding of lenses to prescription; wood preserving; electroplating, plating, metal heat treating, and polishing for the trade; lapidary work for the trade; fabricating signs and advertising displays; rebuilding or remanufacturing machinery (i.e., automotive parts); ship repair and renovation; machine shops; and tire retreading.

**Exclusions.** There are activities that are sometimes considered manufacturing, but for NAICS are classified in another sector. These activities include logging, classified in Sector 11, Agriculture, Forestry, Fishing and Hunting is considered a harvesting operation; the beneficiating of ores and other minerals, classified in Sector 21, Mining, is considered part of the activity of mining; the construction of structures and fabricating operations performed at the site of construction by contractors, is classified in Sector 23, Construction; establishments engaged in breaking of bulk and redistribution in smaller lots, including packaging, repackaging, or bottling products, such as liquors or chemicals; the customized assembly of computers; sorting of scrap; mixing paints to customer order; and cutting metals to customer order, classified in Sector 42, Wholesale Trade or Sector 44-45, Retail Trade, produce a modified version of the same product, not a new product; and publishing and the combined activity of publishing and printing, classified in Sector 51, Information, perform the transformation of information into a product where as the value of the product to the consumer lies in the information content, not in the format in which it is distributed (i.e., the book or software diskette).

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

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

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

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

## REPORTS

The following reports provide statistics on this sector:

**Industry Series.** There are 473 reports, each covering a single NAICS industry (six-digit code). These reports include such statistics as number of establishments, employment, payroll, value added by manufacture, cost of materials consumed, value of shipments, capital expenditures, etc. The industry reports also include data for states with 100 employees or more in the industry. The data in industry reports are preliminary and subject to change in the following reports.

**Geographic Area Series.** There are 51 separate reports, one for each state and the District of Columbia. Each state report presents similar statistics at the “all manufacturing” level for each state and its metropolitan and micropolitan areas with 250 employees or more, and for counties, consolidated cities, and places with 500 employees or more. The state reports also include six-digit NAICS level data for industries with 100 employees or more in the state.

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## Subject Series:

- **Industry-Product Analysis Summary.** This report presents value of shipments, value of product shipments, percentage of product shipments of the total value of shipments, and percentage of distribution of value of product shipments on the NAICS six-digit industry level and by the six- and seven-digit product code levels. It also includes miscellaneous receipts at the six- and seven-digit product code levels by NAICS six-digit industry levels.
- **General Summary.** This report contains industry and geographic area statistics summarized in one report. It includes higher levels of aggregation than the industry and state reports, as well as revisions to the data made after the release of the industry and state reports.
- **Product Summary.** This report summarizes the products data published in the industry reports. This report also includes a table with data for products that are primary to more than one industry, which are not in the industry reports.
- **Materials Summary.** This report summarizes the materials data published in the industry reports.
- **Concentration Ratio Summary.** This report publishes data on the percentage of value of shipments and value added accounted for by the 4-, 8-, 20-, and 50-largest companies for each manufacturing industry. Also shown in this report are Herfindahl-Herschmann indexes for each industry.
- **Location of Manufacturing Plants Summary.** This report contains statistics on the number of establishments for the three- and six-digit NAICS industry by state, county, place, and ZIP Code by employment-size of the establishment.

**ZIP Code Statistics.** This report contains statistics on the number of establishments for the three- and six-digit NAICS industry by employment-size of the establishment by ZIP Code.

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

## GEOGRAPHIC AREAS COVERED

The level of geographic detail varies by report. Maps are available at [www.census.gov/econ2002maps](http://www.census.gov/econ2002maps). Notes specific to areas in the state are included in Appendix D, Geographic Notes.

1. The United States as a whole.
2. States and the District of Columbia.
3. Metropolitan and micropolitan statistical areas with 250 employees or more. A core based statistical areas (CBSA) contains a core area with a substantial population nucleus, together with adjacent communities having a high degree of social and economic integration with that core. CBSAs are differentiated into metropolitan and micropolitan statistical areas based on size criteria. Both metropolitan and micropolitan areas are defined in terms of entire counties, and are listed in Appendix E, Metropolitan and Micropolitan Statistical Areas.
  - a. Metropolitan Statistical Areas (metro areas). Metro areas have at least one urbanized area of 50,000 or more population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties.
  - b. Micropolitan Statistical Areas (micro areas). Micro areas have at least one urban cluster of at least 10,000 but less than 50,000 population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties.
  - c. Metropolitan Divisions (metro divisions). If specified criteria are met, a metro area containing a single core with a population of 2.5 million or more may be subdivided to form smaller groupings of counties referred to as Metropolitan Divisions.

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- d. Combined Statistical Areas (combined areas). If specified criteria are met, adjacent metro and micro areas, in various combinations, may become the components of a new set of areas called Combined Statistical Areas. The areas that combine retain their own designations as metro or micro areas within the larger combined area.
4. Counties and county equivalents defined as of January 1, 2002, with 500 employees or more. Counties are the primary divisions of states, except in Louisiana where they are called parishes and in Alaska where they are called boroughs, census areas, and city and boroughs. Maryland, Missouri, Nevada, and Virginia have one place or more that is independent of any county organization and constitutes primary divisions of their states. These places are treated as counties and as places.
  5. Economic places with 500 employees or more.
    - a. Municipalities of 2,500 inhabitants or more defined as of January 1, 2002. These are areas of significant population incorporated as cities, boroughs, villages, or towns according to the 2000 Census of Population. For the economic census, boroughs and census areas in Alaska and boroughs in New York are not included in this category.
    - b. Consolidated cities defined as of January 1, 2002. Consolidated cities are consolidated governments that consist of separately incorporated municipalities.
    - c. Townships in Michigan, New Jersey, and Pennsylvania, and towns in New York, Wisconsin, and the six New England states with 10,000 inhabitants or more (according to the 2000 Census of Population).
    - d. Balance of county. Areas outside the entities listed above, including incorporated municipalities with populations of fewer than 2,500, town and townships not qualifying as noted above, and the remainders of counties outside places are categorized as "Balance of county."

## **DOLLAR VALUES**

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

All dollar values are shown in thousands of dollars.

## **COMPARABILITY OF THE 1997 AND 2002 ECONOMIC CENSUSES**

Both the 2002 Economic Census and the 1997 Economic Census present data based on the North American Industry Classification System (NAICS). While there were revisions to selected industries for 2002, this sector is not affected by those revisions.

For 2002, there have been several additional data tables added, which did not exist in 1997. These tables for 2002 include products primary to more than one industry, industry-product analysis, e-commerce value of shipments, and leased and nonleased detail employment statistics by subsectors.

## **RELIABILITY OF DATA**

All data compiled for this sector are subject to nonsampling errors. Nonsampling errors can be attributed to many sources: inability to identify all cases in the actual universe; definition and classification difficulties; differences in the interpretation of questions; errors in recording or coding the data obtained; and other errors of collection, response, coverage, processing, and estimation for missing or misreported data. Selected data in tables titled "Detailed Statistics" are based on the Annual Survey of Manufactures and are subject to sampling errors as well as nonsampling errors.

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

## **DISCLOSURE**

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

The disclosure analysis for "industry statistics" files 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 capital expenditures. Nonetheless, the suppressed data are included in higher-level totals. A separate disclosure analysis is performed for capital expenditures, which can be suppressed even though value of shipments data are published.

## **AVAILABILITY OF MORE FREQUENT ECONOMIC DATA**

The Census Bureau conducts the Annual Survey of Manufactures (ASM) in each of the 4 years between the economic censuses. The ASM is a probability-based sample of approximately 55,000 establishments and collects many of the same industry statistics (including employment, payroll, value of shipments, etc.) as the economic census. However, there are selected statistics not included in the ASM. Among these are the number of companies and establishments, detailed product and materials data, and substate geographic data. In addition to the ASM, the Census Bureau conducts the Current Industrial Reports (CIR) program. The CIR program publishes selected detailed product statistics for selected manufacturing industries at the U.S. level annually and, in some cases, monthly and/or quarterly. The Census Bureau also conducts the monthly Manufacturers' Shipments, Inventories, and Orders (M3) Program, which publishes detailed statistics for manufacturing industries at the U.S. level.

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

## **CONTACTS FOR DATA USERS**

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

## **ABBREVIATIONS AND SYMBOLS**

The following abbreviations and symbols are used with these data:

A	Standard error of 100 percent or more
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue
N	Not available or not comparable
S	Withheld because estimates did not meet publication standards
X	Not applicable
Z	Less than half the unit shown
a	0 to 19 employees
b	20 to 99 employees
c	100 to 249 employees

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e	250 to 499 employees
f	500 to 999 employees
g	1,000 to 2,499 employees
h	2,500 to 4,999 employees
i	5,000 to 9,999 employees
j	10,000 to 24,999 employees
k	25,000 to 49,999 employees
l	50,000 to 99,999 employees
m	100,000 employees or more
p	10 to 19 percent estimated
q	20 to 29 percent estimated
r	Revised
s	Sampling error exceeds 40 percent
nsk	Not specified by kind
-	Represents zero (page image/print only)
(CC)	Consolidated city
(IC)	Independent city

**Table 1. Industry Statistics for the State: 2002**

[Includes data for industry groups and industries with 100 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>VIRGINIA</b>													
31-33	Manufacturing .....	-	'5 909	'1 901	'311 787	'11 632 963	229 590	462 114	7 293 991	'48 261 833	'35 696 427	'83 952 547	'2 384 729
311	Food manufacturing .....	1	457	153	33 280	912 527	26 474	53 443	662 412	4 526 550	4 444 307	8 968 506	261 492
3111	Animal food manufacturing .....	-	28	11	606	19 852	413	850	12 340	51 986	314 716	361 787	3 277
31111	Animal food manufacturing ....	-	28	11	606	19 852	413	850	12 340	51 986	314 716	361 787	3 277
311111	Dog and cat food manufacturing .....	-	5	2	163	5 553	142	304	4 261	23 159	37 435	60 511	1 503
311119	Other animal food manufacturing .....	-	23	9	443	14 299	271	546	8 079	28 827	277 281	301 276	1 774
3112	Grain and oilseed milling .....	3	12	5	283	11 556	215	479	7 620	54 843	318 396	372 690	2 927
31121	Flour milling and malt manufacturing .....	-	9	3	c	D	D	D	D	D	D	D	D
311211	Flour milling .....	-	9	3	c	D	D	D	D	D	D	D	D
31122	Starch and vegetable fats and oils manufacturing .....	4	3	2	c	D	D	D	D	D	D	D	D
311225	Fats and oils refining and blending .....	9	2	1	c	D	D	D	D	D	D	D	D
3113	Sugar and confectionery product manufacturing .....	-	20	5	1 112	38 930	957	1 933	31 877	360 773	115 079	470 631	7 220
31133	Confectionery manufacturing from purchased chocolate ....	-	13	2	f	D	D	D	D	D	D	D	D
311330	Confectionery manufacturing from purchased chocolate ..	-	13	2	f	D	D	D	D	D	D	D	D
31134	Nonchocolate confectionery manufacturing .....	-	7	3	e	D	D	D	D	D	D	D	D
311340	Nonchocolate confectionery manufacturing .....	-	7	3	e	D	D	D	D	D	D	D	D
3114	Fruit and vegetable preserving and specialty food manufacturing .....	-	19	5	892	24 217	731	1 361	18 669	85 784	119 222	204 764	4 856
31141	Frozen food manufacturing ....	-	5	2	e	D	D	D	D	D	D	D	1 504
311411	Frozen fruit, juice, and vegetable manufacturing ...	-	1	1	c	D	D	D	D	D	D	D	D
311412	Frozen specialty food manufacturing .....	1	4	1	c	D	D	D	D	D	D	D	D
31142	Fruit and vegetable canning, pickling, and drying .....	-	14	3	f	D	D	D	D	D	D	D	3 352
311421	Fruit and vegetable canning .	-	12	2	532	15 688	479	964	12 967	65 934	79 029	144 739	D
3115	Dairy product manufacturing .....	1	17	12	2 432	98 051	1 640	3 660	63 431	546 467	799 286	1 309 640	83 707
31151	Dairy product (except frozen) manufacturing .....	1	13	12	2 422	97 742	1 633	3 646	63 206	544 845	798 136	1 306 868	83 646
311511	Fluid milk manufacturing ....	2	9	8	1 366	54 513	820	1 801	30 703	247 085	449 755	692 540	D
311514	Dry, condensed, and evaporated dairy product manufacturing .....	-	4	4	1 056	43 229	813	1 845	32 503	297 760	348 381	614 328	D
3116	Animal slaughtering and processing .....	-	67	38	18 940	459 276	16 366	33 986	371 878	1 839 781	1 621 896	3 510 997	72 168
31161	Animal slaughtering and processing .....	-	67	38	18 940	459 276	16 366	33 986	371 878	1 839 781	1 621 896	3 510 997	72 168
311611	Animal (except poultry) slaughtering .....	-	19	6	h	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses .....	3	21	10	1 507	44 732	1 254	2 826	33 608	241 974	110 015	353 262	6 327
311613	Rendering and meat byproduct processing .....	2	9	7	e	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	18	15	12 456	252 945	11 186	21 776	217 497	1 263 623	1 055 922	2 378 519	48 058
3117	Seafood product preparation and packaging .....	4	39	13	1 198	30 780	994	1 771	19 109	103 757	169 640	273 607	5 107
31171	Seafood product preparation and packaging .....	4	39	13	1 198	30 780	994	1 771	19 109	103 757	169 640	273 607	5 107
311712	Fresh and frozen seafood processing .....	4	36	13	1 190	30 580	989	1 761	18 990	103 363	168 989	272 562	5 093
3118	Bakeries and tortilla manufacturing .....	-	197	46	5 417	150 513	3 600	6 467	93 282	859 602	460 863	1 315 159	56 874
31181	Bread and bakery product manufacturing .....	1	185	38	h	D	D	D	D	D	D	D	D
311811	Retail bakeries .....	3	135	18	1 390	20 747	764	944	10 520	43 587	24 229	67 807	1 206
311812	Commercial bakeries .....	-	48	20	2 100	55 398	1 196	2 273	27 154	186 799	86 322	272 747	13 380
31182	Cookie, cracker, and pasta manufacturing .....	-	11	8	1 922	74 255	1 636	3 243	55 535	628 986	350 147	974 210	42 280
311821	Cookie and cracker manufacturing .....	-	5	3	f	D	D	D	D	D	D	D	D
311822	Flour mixes and dough manufacturing from purchased flour .....	-	3	3	693	20 556	595	1 220	13 769	56 045	64 597	122 326	D
311823	Dry pasta manufacturing ....	-	3	2	c	D	D	D	D	D	D	D	D
3119	Other food manufacturing .....	4	58	18	2 400	79 352	1 558	2 936	44 206	623 557	525 209	1 149 231	25 356
31191	Snack food manufacturing ....	2	12	5	1 007	33 424	652	1 325	18 681	174 188	300 271	476 630	7 744
311911	Roasted nuts and peanut butter manufacturing .....	-	6	2	e	D	D	D	D	D	D	D	D
311919	Other snack food manufacturing .....	5	6	3	f	D	D	D	D	D	D	D	D
31192	Coffee and tea manufacturing .	6	5	3	641	25 748	435	763	14 151	383 854	156 844	541 206	15 267
311920	Coffee and tea manufacturing .....	6	5	3	641	25 748	435	763	14 151	383 854	156 844	541 206	15 267

**Table 1. Industry Statistics for the State: 2002—Con.**

[Includes data for industry groups and industries with 100 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
		E <sup>1</sup>	Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)					Wages (\$1,000)
<b>VIRGINIA—Con.</b>													
311	Food manufacturing—Con.												
3119	Other food manufacturing—Con.												
31194	Seasoning and dressing manufacturing	5	9	4	c	D	D	D	D	D	D	D	
311942	Spice and extract manufacturing	5	7	4	c	D	D	D	D	D	D	D	
31199	All other food manufacturing	4	29	5	f	D	D	D	D	D	D	1 229	
311991	Perishable prepared food manufacturing	—	2	1	c	D	D	D	D	D	D	D	
311999	All other miscellaneous food manufacturing	6	27	4	304	8 101	151	306	4 238	25 576	29 493	55 044	D
312	Beverage and tobacco product manufacturing	—	75	33	10 064	594 644	5 725	11 990	304 004	12 071 190	2 916 921	14 990 005	207 479
3121	Beverage manufacturing	—	63	22	h	D	D	D	D	D	D	D	125 233
31211	Soft drink and ice manufacturing	—	32	16	g	D	D	D	D	D	D	D	D
312111	Soft drink manufacturing	—	15	13	1 387	54 878	597	1 240	20 845	254 209	549 112	803 568	D
312113	Ice manufacturing	—	12	3	c	D	D	D	D	D	D	D	D
31212	Breweries	—	7	2	g	D	D	D	D	D	D	D	D
312120	Breweries	—	7	2	g	D	D	D	D	D	D	D	D
31213	Wineries	6	22	2	c	D	D	D	D	D	D	D	D
312130	Wineries	6	22	2	c	D	D	D	D	D	D	D	D
3122	Tobacco manufacturing	—	12	11	i	D	D	D	D	D	D	D	82 246
31221	Tobacco stemming and redrying	—	5	5	g	D	D	D	D	D	D	D	D
312210	Tobacco stemming and redrying	—	5	5	g	D	D	D	D	D	D	D	D
31222	Tobacco product manufacturing	—	7	6	i	D	D	D	D	D	D	D	D
312221	Cigarette manufacturing	—	4	4	i	D	D	D	D	D	D	D	D
312229	Other tobacco product manufacturing	—	3	2	e	D	D	D	D	D	D	D	D
313	Textile mills	—	78	51	16 561	491 849	13 867	28 018	358 830	1 335 163	1 840 087	3 178 052	70 980
3131	Fiber, yarn, and thread mills	—	14	11	1 944	47 332	1 632	2 717	34 662	108 945	210 414	341 336	6 831
31311	Fiber, yarn, and thread mills	—	14	11	1 944	47 332	1 632	2 717	34 662	108 945	210 414	341 336	6 831
313111	Yarn spinning mills	—	7	5	1 284	31 786	1 065	1 704	22 956	77 286	154 923	253 355	D
313112	Yarn texturizing, throwing, and twisting mills	1	6	6	f	D	D	D	D	D	D	D	D
3132	Fabric mills	—	43	32	12 856	399 100	10 706	22 109	291 349	1 107 749	1 419 006	2 519 665	60 454
31321	Broadwoven fabric mills	1	22	15	8 294	221 810	7 153	14 413	169 731	440 394	521 497	949 569	18 606
313210	Broadwoven fabric mills	1	22	15	8 294	221 810	7 153	14 413	169 731	440 394	521 497	949 569	18 606
31322	Narrow fabric mills and schiffli machine embroidery	—	6	5	891	20 379	745	1 607	16 445	58 155	43 914	98 403	D
313221	Narrow fabric mills	—	4	4	f	D	D	D	D	D	D	D	D
313222	Schiffli machine embroidery	—	2	1	c	D	D	D	D	D	D	D	D
31323	Nonwoven fabric mills	—	9	8	2 535	127 249	1 851	4 206	82 766	549 692	742 957	1 300 288	D
313230	Nonwoven fabric mills	—	9	8	2 535	127 249	1 851	4 206	82 766	549 692	742 957	1 300 288	D
31324	Knit fabric mills	4	6	4	1 136	29 662	957	1 883	22 407	59 508	110 638	171 405	D
313241	Weft knit fabric mills	—	3	2	f	D	D	D	D	D	D	D	D
313249	Other knit fabric and lace mills	9	3	2	e	D	D	D	D	D	D	D	D
3133	Textile and fabric finishing and fabric coating mills	—	21	8	1 761	45 417	1 529	3 192	32 819	118 469	210 667	317 051	3 695
31331	Textile and fabric finishing mills	—	19	7	g	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills	—	12	4	1 124	28 795	1 004	2 227	21 454	72 729	146 836	209 395	D
313312	Textile and fabric finishing (except broadwoven fabric) mills	1	7	3	f	D	D	D	D	D	D	D	D
31332	Fabric coating mills	—	2	1	c	D	D	D	D	D	D	D	D
313320	Fabric coating mills	—	2	1	c	D	D	D	D	D	D	D	D
314	Textile product mills	1	157	27	4 228	101 984	3 492	7 070	69 218	202 538	403 144	602 340	D
3141	Textile furnishings mills	—	74	15	3 136	74 467	2 605	5 407	51 063	152 875	326 847	475 892	D
31411	Carpet and rug mills	—	5	3	g	D	D	D	D	D	D	D	D
314110	Carpet and rug mills	—	5	3	g	D	D	D	D	D	D	D	D
31412	Curtain and linen mills	2	69	12	g	D	D	D	D	D	D	D	D
314121	Curtain and drapery mills	5	62	8	f	D	D	D	D	D	D	D	D
314129	Other household textile product mills	—	7	4	835	16 955	692	1 553	11 380	30 558	61 819	100 204	D
3149	Other textile product mills	6	83	12	1 092	27 517	887	1 663	18 155	49 663	76 297	126 448	D
31491	Textile bag and canvas mills	2	31	3	253	6 772	188	366	3 729	13 141	12 052	24 724	D
314912	Canvas and related product mills	2	29	3	c	D	D	D	D	D	D	D	D
31499	All other textile product mills	7	52	9	839	20 745	699	1 297	14 426	36 522	64 245	101 724	D
314992	Tire cord and tire fabric mills	9	1	1	c	D	D	D	D	D	D	D	D
314999	All other miscellaneous textile product mills	5	51	8	f	D	D	D	D	D	D	D	D

**Table 1. Industry Statistics for the State: 2002—Con.**

[Includes data for industry groups and industries with 100 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>VIRGINIA—Con.</b>													
315	Apparel manufacturing .....	2	141	44	6 563	141 792	5 334	10 559	102 102	601 991	410 843	1 031 230	D
3151	Apparel knitting mills .....	—	14	7	1 541	34 916	1 314	2 810	27 790	37 243	107 007	154 029	D
31511	Hosiery and sock mills .....	1	9	5	f	D	D	D	D	D	D	D	D
315119	Other hosiery and sock mills .....	—	8	4	867	18 794	850	1 915	17 900	19 513	24 692	46 893	D
31519	Other apparel knitting mills .....	—	5	2	f	D	D	D	D	D	D	D	D
315191	Outerwear knitting mills .....	—	5	2	f	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing .....	2	96	29	4 562	97 529	3 671	7 107	68 130	543 138	292 140	843 978	D
31521	Cut and sew apparel contractors .....	4	54	7	589	8 175	501	817	6 243	13 753	2 031	15 845	D
315211	Men's and boys' cut and sew apparel contractors .....	1	9	3	138	2 269	125	201	1 911	4 693	404	5 119	D
315212	Women's, girls', and infants' cut and sew apparel contractors .....	5	45	4	451	5 906	376	616	4 332	9 060	1 627	10 726	D
31522	Men's and boys' cut and sew apparel manufacturing .....	1	15	8	2 121	48 844	1 730	3 581	38 175	397 372	108 922	512 489	D
315223	Men's and boys' cut and sew shirt (except work shirt) manufacturing .....	7	3	2	371	8 081	345	600	6 788	12 637	21 592	33 841	D
315224	Men's and boys' cut and sew trouser, slack, and jean manufacturing .....	—	3	3	g	D	D	D	D	D	D	D	D
315225	Men's and boys' cut and sew work clothing manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
31523	Women's and girls' cut and sew apparel manufacturing .....	9	16	7	894	21 828	743	1 359	14 288	67 107	91 758	159 074	D
315232	Women's and girls' cut and sew blouse and shirt manufacturing .....	9	3	1	e	D	D	D	D	D	D	D	D
315239	Women's and girls' cut and sew other outerwear manufacturing .....	9	7	4	e	D	D	D	D	D	D	D	D
31529	Other cut and sew apparel manufacturing .....	—	11	7	958	18 682	697	1 350	9 424	64 906	89 429	156 570	D
315291	Infants' cut and sew apparel manufacturing .....	—	3	2	f	D	D	D	D	D	D	D	D
315299	All other cut and sew apparel manufacturing .....	—	7	5	e	D	D	D	D	D	D	D	D
3159	Apparel accessories and other apparel manufacturing .....	3	31	8	460	9 347	349	642	6 182	21 610	11 696	33 223	D
31599	Apparel accessories and other apparel manufacturing .....	3	31	8	460	9 347	349	642	6 182	21 610	11 696	33 223	D
315991	Hat, cap, and millinery manufacturing .....	4	8	5	221	5 198	189	362	3 690	8 934	3 825	12 832	D
315999	Other apparel accessories and other apparel manufacturing .....	4	20	1	c	D	D	D	D	D	D	D	D
316	Leather and allied product manufacturing .....	—	12	3	319	7 246	252	412	3 917	16 919	7 339	23 514	D
3162	Footwear manufacturing .....	—	2	1	c	D	D	D	D	D	D	D	D
31621	Footwear manufacturing .....	—	2	1	c	D	D	D	D	D	D	D	D
316214	Women's footwear (except athletic) manufacturing .....	—	1	1	c	D	D	D	D	D	D	D	D
3169	Other leather and allied product manufacturing .....	—	10	2	c	D	D	D	D	D	D	D	D
31699	Other leather and allied product manufacturing .....	—	10	2	c	D	D	D	D	D	D	D	D
316999	All other leather goods manufacturing .....	—	4	1	c	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	1	529	207	18 222	525 239	14 740	29 251	365 202	1 229 067	1 800 311	3 032 926	120 702
3211	Sawmills and wood preservation .....	1	219	81	5 065	147 090	4 154	8 691	104 228	357 506	665 821	1 026 717	64 985
32111	Sawmills and wood preservation .....	1	219	81	5 065	147 090	4 154	8 691	104 228	357 506	665 821	1 026 717	64 985
321113	Sawmills .....	2	197	68	3 716	104 616	3 189	6 594	81 499	252 642	401 972	650 151	45 716
321114	Wood preservation .....	—	22	13	1 349	42 474	965	2 097	22 729	104 864	263 849	376 566	19 269
3212	Veneer, plywood, and engineered wood product manufacturing .....	—	65	47	4 682	144 942	3 584	6 968	96 710	403 034	443 835	845 622	27 655
32121	Veneer, plywood, and engineered wood product manufacturing .....	—	65	47	4 682	144 942	3 584	6 968	96 710	403 034	443 835	845 622	27 655
321211	Hardwood veneer and plywood manufacturing .....	—	13	10	1 184	32 008	999	1 849	23 963	112 729	131 029	244 686	7 011
321212	Softwood veneer and plywood manufacturing .....	—	3	3	e	D	D	D	D	D	D	D	1 817
321214	Truss manufacturing .....	—	35	22	1 622	49 483	1 042	1 895	24 770	99 251	91 913	191 138	4 141
321219	Reconstituted wood product manufacturing .....	—	12	10	1 312	45 139	1 047	2 136	32 679	156 592	155 883	310 679	14 686

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		E <sup>1</sup>	Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)					Wages (\$1,000)
<b>VIRGINIA—Con.</b>													
321	Wood product manufacturing—Con.												
3219	Other wood product manufacturing .....	2	245	79	8 475	233 207	7 002	13 592	164 264	468 527	690 655	1 160 587	28 062
32191	Millwork .....	2	118	43	4 629	134 101	3 934	7 828	99 177	268 595	445 056	714 148	15 201
321911	Wood window and door manufacturing .....	1	29	15	2 061	59 815	1 707	3 500	42 600	130 700	201 373	332 802	5 690
321912	Cut stock, resawing lumber, and planing .....	4	38	12	1 142	31 878	1 000	1 973	24 962	69 603	118 990	188 215	4 253
321918	Other millwork (including flooring) .....	3	51	16	1 426	42 408	1 227	2 355	31 615	68 292	124 693	193 131	5 258
32192	Wood container and pallet manufacturing .....	3	59	14	938	21 695	784	1 498	15 298	46 474	61 942	108 983	1 820
321920	Wood container and pallet manufacturing .....	3	59	14	938	21 695	784	1 498	15 298	46 474	61 942	108 983	1 820
32199	All other wood product manufacturing .....	2	68	22	2 908	77 411	2 284	4 266	49 789	153 458	183 657	337 456	11 041
321991	Manufactured home (mobile home) manufacturing .....	—	4	3	548	14 496	432	710	8 381	20 116	32 037	50 857	263
321992	Prefabricated wood building manufacturing .....	4	19	9	1 282	35 708	934	1 768	21 189	62 714	77 034	141 149	5 385
321999	All other miscellaneous wood product manufacturing .....	1	45	10	1 078	27 207	918	1 788	20 219	70 628	74 586	145 450	5 393
322	Paper manufacturing .....	—	108	78	12 378	601 965	9 606	20 391	421 001	2 097 520	2 084 290	4 168 307	137 686
3221	Pulp, paper, and paperboard mills .....	—	14	14	5 395	328 235	4 123	8 921	238 628	1 460 338	1 066 832	2 484 545	104 990
32212	Paper mills .....	—	3	3	g	D	D	D	D	D	D	D	D
322121	Paper (except newsprint) mills .....	—	2	2	g	D	D	D	D	D	D	D	D
322122	Newsprint mills .....	—	1	1	c	D	D	D	D	D	D	D	D
32213	Paperboard mills .....	—	11	11	h	D	D	D	D	D	D	D	D
322130	Paperboard mills .....	—	11	11	h	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing .....	1	94	64	6 983	273 730	5 483	11 470	182 373	637 182	1 017 458	1 683 762	32 696
32221	Paperboard container manufacturing .....	1	55	39	3 927	161 441	3 054	6 501	105 402	358 492	576 137	930 361	18 127
322211	Corrugated and solid fiber box manufacturing .....	1	37	27	2 587	107 697	1 964	4 369	66 966	246 407	399 551	645 863	14 812
322212	Folding paperboard box manufacturing .....	2	9	7	985	38 817	794	1 544	27 467	75 564	98 004	171 161	1 789
322214	Fiber can, tube, drum, and similar products manufacturing .....	—	7	4	c	D	D	D	D	D	D	D	D
322215	Nonfolding sanitary food container manufacturing .....	—	1	1	c	D	D	D	D	D	D	D	D
32222	Paper bag and coated and treated paper manufacturing .....	—	15	10	1 403	52 820	1 142	2 439	38 018	151 413	228 299	384 247	D
322222	Coated and laminated paper manufacturing .....	—	8	3	393	13 405	319	684	9 859	70 437	99 406	169 178	1 065
322224	Uncoated paper and multiwall bag manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
322225	Laminated aluminum foil packaging uses .....	—	1	1	e	D	D	D	D	D	D	D	D
322226	Surface-coated paperboard manufacturing .....	—	2	2	c	D	D	D	D	D	D	D	D
32223	Stationery product manufacturing .....	4	14	7	788	28 078	617	1 197	18 429	55 541	119 745	203 688	7 141
322231	Die-cut paper and paperboard office supplies manufacturing .....	8	7	4	345	11 301	280	469	8 215	36 480	33 058	69 509	D
322232	Envelope manufacturing .....	2	4	1	c	D	D	D	D	D	D	D	506
322233	Stationery, tablet, and related product manufacturing .....	2	3	2	e	D	D	D	D	D	D	D	D
32229	Other converted paper product manufacturing .....	1	10	8	865	31 391	670	1 333	20 524	71 736	93 277	165 466	D
322299	All other converted paper product manufacturing .....	1	9	8	f	D	D	D	D	D	D	D	3 733
323	Printing and related support activities .....	2	767	156	18 565	664 487	14 248	27 435	453 421	1 574 815	947 730	2 515 684	86 695
3231	Printing and related support activities .....	2	767	156	18 565	664 487	14 248	27 435	453 421	1 574 815	947 730	2 515 684	86 695
32311	Printing .....	2	708	143	17 760	634 013	13 667	26 319	432 972	1 515 744	934 984	2 444 275	83 846
323110	Commercial lithographic printing .....	1	344	89	10 264	391 056	7 819	15 170	261 219	869 567	524 075	1 389 416	50 119
323111	Commercial gravure printing .....	2	11	8	1 535	60 428	1 297	2 531	48 699	152 933	121 429	271 658	5 740
323112	Commercial flexographic printing .....	—	10	4	257	8 925	191	428	5 496	17 622	19 217	36 846	1 329
323113	Commercial screen printing .....	2	69	14	725	19 505	556	1 080	10 795	37 114	39 399	76 374	1 202
323114	Quick printing .....	3	169	5	990	28 531	656	1 156	17 093	64 538	23 394	87 803	3 157
323115	Digital printing .....	2	28	1	c	D	D	D	D	D	D	D	625
323116	Manifold business forms printing .....	2	17	8	653	21 586	487	953	16 031	66 673	55 675	123 550	1 949
323117	Books printing .....	—	13	7	2 547	79 360	2 055	3 867	57 365	192 838	102 285	294 620	17 798
323118	Blankbook, looseleaf binders, and devices manufacturing .....	1	3	3	e	D	D	D	D	D	D	D	641
323119	Other commercial printing .....	2	44	4	340	11 219	242	453	6 517	23 712	11 647	36 058	1 286
32312	Support activities for printing .....	2	59	13	805	30 474	581	1 116	20 449	59 071	12 746	71 409	2 849
323121	Tradebinding and related work .....	3	18	5	333	8 813	270	528	6 247	17 362	4 759	22 116	636
323122	Prepress services .....	1	41	8	472	21 661	311	588	14 202	41 709	7 987	49 293	2 213

**Table 1. Industry Statistics for the State: 2002—Con.**

[Includes data for industry groups and industries with 100 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>VIRGINIA—Con.</b>													
324	Petroleum and coal products manufacturing .....	-	29	4	588	30 218	361	785	19 765	121 211	612 655	691 309	D
3241	Petroleum and coal products manufacturing .....	-	29	4	588	30 218	361	785	19 765	121 211	612 655	691 309	D
32411	Petroleum refineries .....	-	1	1	e	D	D	D	D	D	D	D	D
324110	Petroleum refineries .....	-	1	1	e	D	D	D	D	D	D	D	D
32412	Asphalt paving, roofing, and saturated materials manufacturing .....	1	24	3	e	D	D	D	D	D	D	D	15 395
324121	Asphalt paving mixture and block manufacturing .....	2	21	2	155	5 589	91	170	3 601	23 805	33 814	57 653	D
324122	Asphalt shingle and coating materials manufacturing ...	-	3	1	c	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	-	187	78	17 527	909 920	11 115	23 690	494 968	4 806 822	3 272 503	7 985 478	291 106
3251	Basic chemical manufacturing ...	-	36	13	4 335	269 298	2 425	5 651	136 892	941 536	547 295	1 411 411	61 685
32512	Industrial gas manufacturing ...	1	13	3	c	D	D	D	D	D	D	D	D
325120	Industrial gas manufacturing .	1	13	3	c	D	D	D	D	D	D	D	D
32513	Synthetic dye and pigment manufacturing .....	6	2	2	c	D	D	D	D	D	D	D	D
32518	Other basic inorganic chemical manufacturing .....	1	12	4	2 612	173 411	1 245	3 115	74 117	441 533	84 003	456 346	26 619
325188	All other basic inorganic chemical manufacturing ....	1	12	4	2 612	173 411	1 245	3 115	74 117	441 533	84 003	456 346	26 619
32519	Other basic organic chemical manufacturing .....	-	9	4	1 480	85 294	1 070	2 295	58 516	441 311	436 297	869 176	33 191
325199	All other basic organic chemical manufacturing ....	-	9	4	1 480	85 294	1 070	2 295	58 516	441 311	436 297	869 176	33 191
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	-	14	8	4 659	234 707	3 538	8 275	165 889	929 622	818 726	1 742 262	58 519
32521	Resin and synthetic rubber manufacturing .....	-	7	2	1 252	68 075	1 003	2 390	52 830	233 153	348 641	580 195	D
325211	Plastics material and resin manufacturing .....	-	5	2	g	D	D	D	D	D	D	D	11 035
32522	Artificial and synthetic fibers and filaments manufacturing ..	-	7	6	3 407	166 632	2 535	5 885	113 059	696 469	470 085	1 162 067	D
325221	Cellulosic organic fiber manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber manufacturing .....	-	6	5	g	D	D	D	D	D	D	D	D
3253	Pesticide, fertilizer, and other agricultural chemical manufacturing .....	3	27	8	344	11 677	228	471	6 054	31 890	60 886	94 800	1 890
32531	Fertilizer manufacturing .....	4	25	6	e	D	D	D	D	D	D	D	D
325314	Fertilizer (mixing only) manufacturing .....	3	20	6	261	8 157	164	341	3 867	20 293	40 874	63 145	1 458
3254	Pharmaceutical and medicine manufacturing .....	-	17	11	3 307	180 373	1 583	2 642	69 210	1 937 356	1 205 566	3 114 527	127 978
32541	Pharmaceutical and medicine manufacturing .....	-	17	11	3 307	180 373	1 583	2 642	69 210	1 937 356	1 205 566	3 114 527	127 978
325411	Medicinal and botanical manufacturing .....	-	5	3	g	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation manufacturing .....	1	6	3	1 476	53 865	741	1 048	15 399	413 112	120 660	511 613	25 219
325413	In-vitro diagnostic substance manufacturing .....	-	3	2	c	D	D	D	D	D	D	D	D
325414	Biological product (except diagnostic) manufacturing ..	-	3	3	c	D	D	D	D	D	D	D	D
3255	Paint, coating, and adhesive manufacturing .....	-	19	10	828	39 024	521	1 065	21 786	438 269	283 714	723 772	7 085
32551	Paint and coating manufacturing .....	-	12	6	671	32 792	423	879	18 194	407 408	245 114	653 930	4 257
325510	Paint and coating manufacturing .....	-	12	6	671	32 792	423	879	18 194	407 408	245 114	653 930	4 257
32552	Adhesive manufacturing .....	1	7	4	157	6 232	98	186	3 592	30 861	38 600	69 842	2 828
325520	Adhesive manufacturing ....	1	7	4	157	6 232	98	186	3 592	30 861	38 600	69 842	2 828
3256	Soap, cleaning compound, and toilet preparation manufacturing .	-	24	8	1 363	54 304	924	1 933	23 991	207 757	155 340	373 892	11 722
32561	Soap and cleaning compound manufacturing .....	3	16	3	269	9 716	215	444	5 932	35 658	22 232	58 116	3 026
325612	Polish and other sanitation good manufacturing .....	2	9	3	224	6 840	192	394	4 961	26 201	14 770	41 248	2 787
32562	Toilet preparation manufacturing .....	-	8	5	1 094	44 588	709	1 489	18 059	172 099	133 108	315 776	8 696
325620	Toilet preparation manufacturing .....	-	8	5	1 094	44 588	709	1 489	18 059	172 099	133 108	315 776	8 696
3259	Other chemical product and preparation manufacturing .....	-	50	20	2 691	120 537	1 896	3 653	71 146	320 392	200 976	524 814	22 227
32591	Printing ink manufacturing .....	-	17	7	461	25 771	230	488	9 272	74 869	76 069	150 935	D
325910	Printing ink manufacturing ...	-	17	7	461	25 771	230	488	9 272	74 869	76 069	150 935	D
32592	Explosives manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
325920	Explosives manufacturing ...	-	2	2	g	D	D	D	D	D	D	D	D

**Table 1. Industry Statistics for the State: 2002—Con.**

[Includes data for industry groups and industries with 100 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>VIRGINIA—Con.</b>													
325	Chemical manufacturing—Con.												
3259	Other chemical product and preparation manufacturing—Con.												
32599	All other chemical product and preparation manufacturing . . .	—	31	11	g	D	D	D	D	D	D	D	16 687
325991	Custom compounding of purchased resins . . . . .	2	8	4	332	12 079	218	471	6 746	27 519	7 237	34 469	11 507
325998	All other miscellaneous chemical product and preparation manufacturing .	—	12	6	759	31 993	490	870	17 997	103 750	102 061	209 747	D
326	Plastics and rubber products manufacturing . . . . .	—	192	118	25 419	911 263	19 651	40 092	630 283	2 924 161	2 261 231	5 184 705	169 376
3261	Plastics product manufacturing . .	—	151	96	19 685	681 320	14 920	30 688	456 223	2 352 357	1 797 695	4 148 970	135 071
32611	Plastics packaging materials and unlaminated film and sheet manufacturing . . . . .	—	25	17	4 969	177 587	4 037	7 803	125 999	821 468	703 494	1 523 432	70 644
326111	Plastics bag manufacturing . .	—	6	4	1 125	34 512	1 000	2 155	28 630	177 674	143 848	315 447	8 701
326112	Plastics packaging film and sheet (including laminated) manufacturing . . . . .	3	4	3	284	11 886	219	448	8 265	28 842	36 699	67 765	958
326113	Unlaminated plastics film and sheet (except packaging) manufacturing . . . . .	—	15	10	3 560	131 189	2 818	5 200	89 104	614 952	522 947	1 140 220	60 985
32612	Plastics pipe, pipe fitting, and unlaminated profile shape manufacturing . . . . .	—	13	6	e	D	D	D	D	D	D	D	1 313
326121	Unlaminated plastics profile shape manufacturing . . . . .	—	9	3	c	D	D	D	D	D	D	D	D
326122	Plastics pipe and pipe fitting manufacturing . . . . .	—	4	3	238	7 455	121	271	4 515	21 247	18 829	40 169	D
32614	Polystyrene foam product manufacturing . . . . .	1	11	7	549	15 622	449	846	11 087	64 381	62 093	126 356	2 370
326140	Polystyrene foam product manufacturing . . . . .	1	11	7	549	15 622	449	846	11 087	64 381	62 093	126 356	2 370
32615	Urethane and other foam product (except polystyrene) manufacturing . . . . .	—	5	4	e	D	D	D	D	D	D	D	D
326150	Urethane and other foam product (except polystyrene) manufacturing . . . . .	—	5	4	e	D	D	D	D	D	D	D	D
32616	Plastics bottle manufacturing . .	2	6	4	908	30 925	814	1 675	25 075	97 318	105 541	201 707	9 707
326160	Plastics bottle manufacturing . . . . .	2	6	4	908	30 925	814	1 675	25 075	97 318	105 541	201 707	9 707
32619	Other plastics product manufacturing . . . . .	—	90	57	12 315	426 410	8 958	19 018	273 403	1 235 858	833 756	2 072 078	49 610
326191	Plastics plumbing fixture manufacturing . . . . .	—	8	5	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing . . . . .	—	81	52	11 433	402 702	8 169	17 321	254 322	1 195 210	795 258	1 992 851	47 297
3262	Rubber product manufacturing . . .	—	41	22	5 734	229 943	4 731	9 404	174 060	571 804	463 536	1 035 735	34 305
32621	Tire manufacturing . . . . .	—	18	8	3 489	169 435	2 892	6 197	132 573	381 139	298 938	682 686	D
326211	Tire manufacturing (except retreading) . . . . .	—	7	3	h	D	D	D	D	D	D	D	D
326212	Tire retreading . . . . .	2	11	5	c	D	D	D	D	D	D	D	509
32629	Other rubber product manufacturing . . . . .	1	20	14	2 223	59 737	1 821	3 170	40 912	188 919	162 874	349 579	D
326291	Rubber product manufacturing for mechanical use . . . . .	3	7	6	930	24 769	773	1 615	18 308	67 245	47 334	113 592	D
326299	All other rubber product manufacturing . . . . .	—	13	8	1 293	34 968	1 048	1 555	22 604	121 674	115 540	235 987	4 617
327	Nonmetallic mineral product manufacturing . . . . .	1	'366	'131	'11 236	'388 728	8 636	17 988	263 768	'1 256 107	'871 897	'2 123 589	'110 396
3271	Clay product and refractory manufacturing . . . . .	2	27	10	878	27 329	677	1 268	17 321	73 550	48 419	124 212	7 283
32712	Clay building material and refractories manufacturing . . .	2	13	10	830	26 468	637	1 197	16 742	71 876	47 654	121 699	7 225
327121	Brick and structural clay tile manufacturing . . . . .	3	9	8	718	21 047	583	1 078	14 919	62 024	23 207	85 235	5 112
3272	Glass and glass product manufacturing . . . . .	—	35	14	2 099	68 772	1 685	3 366	47 281	222 554	176 128	395 341	15 211
32721	Glass and glass product manufacturing . . . . .	—	35	14	2 099	68 772	1 685	3 366	47 281	222 554	176 128	395 341	15 211
327212	Other pressed and blown glass and glassware manufacturing . . . . .	—	5	1	e	D	D	D	D	D	D	D	D
327213	Glass container manufacturing . . . . .	—	2	2	e	D	D	D	D	D	D	D	D
327215	Glass product manufacturing made of purchased glass . .	—	28	11	g	D	D	D	D	D	D	D	D
3273	Cement and concrete product manufacturing . . . . .	2	'255	'81	'6 311	'215 297	4 826	10 231	145 565	'673 183	'517 771	'1 185 970	'67 026
32731	Cement manufacturing . . . . .	—	8	3	303	14 308	160	372	7 366	69 917	72 027	140 040	D
327310	Cement manufacturing . . . . .	—	8	3	303	14 308	160	372	7 366	69 917	72 027	140 040	D
32732	Ready-mix concrete manufacturing . . . . .	1	152	37	2 405	84 534	1 912	4 009	63 975	279 569	274 434	553 109	39 460
327320	Ready-mix concrete manufacturing . . . . .	1	152	37	2 405	84 534	1 912	4 009	63 975	279 569	274 434	553 109	39 460

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>VIRGINIA—Con.</b>													
327	Nonmetallic mineral product manufacturing—Con.												
3273	Cement and concrete product manufacturing—Con.												
32733	Concrete pipe, brick, and block manufacturing .....	2	36	17	1 274	38 405	974	2 046	25 451	130 459	79 015	208 211	D
327331	Concrete block and brick manufacturing .....	3	24	7	381	13 343	232	486	7 067	54 976	43 334	96 860	D
327332	Concrete pipe manufacturing .....	1	12	10	893	25 062	742	1 560	18 384	75 483	35 681	111 351	3 092
32739	Other concrete product manufacturing .....	3	59	24	2 329	78 050	1 780	3 804	48 773	193 238	92 295	284 610	10 344
327390	Other concrete product manufacturing .....	3	59	24	2 329	78 050	1 780	3 804	48 773	193 238	92 295	284 610	10 344
3274	Lime and gypsum product manufacturing .....	—	7	3	347	17 646	272	722	13 441	40 203	32 848	72 733	4 207
32741	Lime manufacturing .....	—	2	2	c	D	D	D	D	D	D	D	D
327410	Lime manufacturing .....	—	2	2	c	D	D	D	D	D	D	D	D
32742	Gypsum product manufacturing .....	1	5	1	c	D	D	D	D	D	D	D	D
327420	Gypsum product manufacturing .....	1	5	1	c	D	D	D	D	D	D	D	D
3279	Other nonmetallic mineral product manufacturing .....	1	42	23	1 601	59 684	1 176	2 401	40 160	246 617	96 731	345 333	16 669
32791	Abrasive product manufacturing .....	3	6	5	439	16 854	297	547	9 657	51 565	27 211	78 645	1 222
327910	Abrasive product manufacturing .....	3	6	5	439	16 854	297	547	9 657	51 565	27 211	78 645	1 222
32799	All other nonmetallic mineral product manufacturing .....	—	36	18	1 162	42 830	879	1 854	30 503	195 052	69 520	266 688	15 447
327991	Cut stone and stone product manufacturing .....	2	20	8	412	12 875	307	657	8 883	28 512	15 963	43 993	2 880
327992	Ground or treated mineral and earth manufacturing .....	—	2	1	c	D	D	D	D	D	D	D	D
327993	Mineral wool manufacturing .....	—	4	2	c	D	D	D	D	D	D	D	394
327999	All other miscellaneous nonmetallic mineral product manufacturing .....	—	10	7	450	18 681	350	769	12 917	57 352	35 144	92 409	D
331	Primary metal manufacturing .....	—	56	36	7 214	293 860	5 830	12 390	216 335	733 126	1 110 180	1 857 302	66 336
3311	Iron and steel mills and ferroalloy manufacturing .....	—	6	4	1 164	57 913	950	1 981	44 879	129 760	280 715	417 914	11 679
33111	Iron and steel mills and ferroalloy manufacturing .....	—	6	4	1 164	57 913	950	1 981	44 879	129 760	280 715	417 914	11 679
331111	Iron and steel mills .....	—	6	4	1 164	57 913	950	1 981	44 879	129 760	280 715	417 914	11 679
3312	Steel product manufacturing from purchased steel .....	3	8	7	429	15 376	360	755	11 753	37 772	59 611	94 748	D
33121	Iron and steel pipe and tube manufacturing from purchased steel .....	7	2	2	c	D	D	D	D	D	D	D	D
331210	Iron and steel pipe and tube manufacturing from purchased steel .....	7	2	2	c	D	D	D	D	D	D	D	D
33122	Rolling and drawing of purchased steel .....	—	6	5	e	D	D	D	D	D	D	D	D
331222	Steel wire drawing .....	1	5	4	220	7 216	190	414	5 838	15 605	27 081	43 172	558
3313	Alumina and aluminum production and processing .....	—	13	7	1 757	69 096	1 464	3 273	54 217	184 584	477 974	664 390	18 070
33131	Alumina and aluminum production and processing .....	—	13	7	1 757	69 096	1 464	3 273	54 217	184 584	477 974	664 390	18 070
331315	Aluminum sheet, plate, and foil manufacturing .....	—	4	3	883	38 854	732	1 741	30 921	127 153	380 255	505 873	3 221
331316	Aluminum extruded product manufacturing .....	—	5	3	810	27 858	682	1 456	21 695	56 638	77 055	133 639	14 706
3314	Nonferrous metal (except aluminum) production and processing .....	—	9	4	568	21 752	423	915	13 390	63 976	82 467	144 798	D
33142	Copper rolling, drawing, extruding, and alloying .....	—	2	2	e	D	D	D	D	D	D	D	D
331421	Copper rolling, drawing, and extruding .....	—	1	1	e	D	D	D	D	D	D	D	D
33149	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying .....	—	7	2	c	D	D	D	D	D	D	D	D
331491	Nonferrous metal (except copper and aluminum) rolling, drawing, and extruding .....	—	6	2	c	D	D	D	D	D	D	D	D
3315	Foundries .....	—	20	14	3 296	129 723	2 633	5 466	92 096	317 034	209 413	535 452	18 686
33151	Ferrous metal foundries .....	—	13	9	h	D	D	D	D	D	D	D	18 070
331511	Iron foundries .....	—	9	7	1 795	69 066	1 497	3 269	53 405	166 063	116 015	280 561	D
331512	Steel investment foundries .....	—	1	1	g	D	D	D	D	D	D	D	D
33152	Nonferrous metal foundries .....	6	7	5	e	D	D	D	D	D	D	D	616
331525	Copper foundries (except die-casting) .....	—	2	1	c	D	D	D	D	D	D	D	D

**Table 1. Industry Statistics for the State: 2002—Con.**

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NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>VIRGINIA—Con.</b>													
332	Fabricated metal product manufacturing .....	1	787	214	18 437	674 817	13 941	27 242	437 179	1 798 039	1 515 797	3 305 057	108 999
3321	Forging and stamping.....	—	24	13	995	30 034	818	1 597	21 111	87 338	48 984	138 374	7 930
33211	Forging and stamping.....	—	24	13	995	30 034	818	1 597	21 111	87 338	48 984	138 374	7 930
332112	Nonferrous forging .....	—	3	3	445	13 832	362	650	9 641	39 162	24 775	64 743	D
332114	Custom roll forming .....	2	6	3	163	4 032	138	300	2 906	17 735	6 201	24 758	D
332116	Metal stamping .....	—	11	6	352	11 098	289	598	7 812	28 925	16 156	45 505	3 176
3322	Cutlery and handtool manufacturing .....	—	14	6	712	29 367	484	1 018	16 838	46 012	60 930	110 659	D
33221	Cutlery and handtool manufacturing .....	—	14	6	712	29 367	484	1 018	16 838	46 012	60 930	110 659	D
332212	Hand and edge tool manufacturing .....	—	11	5	f	D	D	D	D	D	D	D	2 607
3323	Architectural and structural metals manufacturing .....	1	242	88	5 906	208 828	4 298	8 575	128 311	564 136	516 175	1 084 178	19 934
33231	Plate work and fabricated structural product manufacturing .....	1	115	55	3 623	129 881	2 555	5 263	79 631	391 707	358 055	751 843	11 032
332311	Prefabricated metal building and component manufacturing .....	—	17	8	453	14 827	335	634	10 478	65 744	62 148	127 826	1 462
332312	Fabricated structural metal manufacturing .....	2	79	39	2 651	96 583	1 827	3 782	56 536	292 632	277 909	572 426	7 907
332313	Plate work manufacturing .....	2	19	8	519	18 471	393	847	12 617	33 331	17 998	51 591	1 663
33232	Ornamental and architectural metal products manufacturing .....	1	127	33	2 283	78 947	1 743	3 312	48 680	172 429	158 120	332 335	8 902
332321	Metal window and door manufacturing .....	1	13	5	524	14 264	454	808	10 505	44 407	59 464	104 517	1 605
332322	Sheet metal work manufacturing .....	1	86	25	1 472	52 053	1 096	2 115	30 868	103 451	85 940	188 944	6 111
332323	Ornamental and architectural metal work manufacturing ..	4	28	3	287	12 630	193	389	7 307	24 571	12 716	38 874	1 186
3324	Boiler, tank, and shipping container manufacturing .....	—	19	12	1 436	65 410	1 134	2 216	47 741	241 835	389 987	625 577	28 909
33241	Power boiler and heat exchanger manufacturing ....	—	3	3	305	15 692	211	397	9 799	32 563	71 897	104 142	D
332410	Power boiler and heat exchanger manufacturing ..	—	3	3	305	15 692	211	397	9 799	32 563	71 897	104 142	D
33242	Metal tank (heavy gauge) manufacturing .....	6	10	5	e	D	D	D	D	D	D	D	2 435
332420	Metal tank (heavy gauge) manufacturing .....	6	10	5	e	D	D	D	D	D	D	D	2 435
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	—	6	4	f	D	D	D	D	D	D	D	D
332431	Metal can manufacturing ....	—	4	4	f	D	D	D	D	D	D	D	D
3325	Hardware manufacturing .....	—	5	2	e	D	D	D	D	D	D	D	D
33251	Hardware manufacturing .....	—	5	2	e	D	D	D	D	D	D	D	D
332510	Hardware manufacturing ....	—	5	2	e	D	D	D	D	D	D	D	D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	2	343	53	4 573	162 747	3 503	6 845	111 774	313 439	151 568	463 824	23 358
33271	Machine shops .....	2	319	39	3 475	127 628	2 650	5 102	86 947	226 990	90 294	316 490	19 608
332710	Machine shops .....	2	319	39	3 475	127 628	2 650	5 102	86 947	226 990	90 294	316 490	19 608
33272	Turned product and screw, nut, and bolt manufacturing .....	1	24	14	1 098	35 119	853	1 743	24 827	86 449	61 274	147 334	3 750
332721	Precision turned product manufacturing .....	—	18	9	415	14 750	312	560	10 275	30 832	9 686	41 228	1 102
332722	Bolt, nut, screw, rivet, and washer manufacturing .....	1	6	5	683	20 369	541	1 183	14 552	55 617	51 588	106 106	2 648
3328	Coating, engraving, heat treating, and allied activities .....	2	56	11	685	21 961	530	1 089	14 170	45 263	16 521	61 913	D
33281	Coating, engraving, heat treating, and allied activities ..	2	56	11	685	21 961	530	1 089	14 170	45 263	16 521	61 913	D
332812	Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers ..	1	23	5	260	8 124	211	424	5 848	15 346	8 345	23 794	437
332813	Electroplating, plating, polishing, anodizing, and coloring .....	2	27	5	365	11 623	286	586	7 421	24 566	5 025	29 578	D
3329	Other fabricated metal product manufacturing .....	1	76	29	3 652	138 625	2 862	5 449	90 585	459 963	313 157	762 468	23 228
33291	Metal valve manufacturing ....	3	8	5	1 306	48 850	967	1 552	26 241	119 722	93 102	211 795	7 388
332911	Industrial valve manufacturing .....	9	5	2	e	D	D	D	D	D	D	D	D
332913	Plumbing fixture fitting and trim manufacturing .....	—	2	2	c	D	D	D	D	D	D	D	D
332919	Other metal valve and pipe fitting manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D

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<b>VIRGINIA—Con.</b>													
332	Fabricated metal product manufacturing—Con.												
3329	Other fabricated metal product manufacturing—Con.												
33299	All other fabricated metal product manufacturing .....	—	68	24	2 346	89 775	1 895	3 897	64 344	340 241	220 055	550 673	15 840
332991	Ball and roller bearing manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
332992	Small arms ammunition manufacturing .....	—	3	1	c	D	D	D	D	D	D	D	D
332996	Fabricated pipe and pipe fitting manufacturing .....	2	6	3	168	6 922	150	346	6 153	15 982	13 096	28 916	497
332999	All other miscellaneous fabricated metal product manufacturing .....	1	46	16	1 196	41 875	918	1 859	27 039	109 231	66 925	172 889	3 809
333	Machinery manufacturing .....	1	'326	'127	'16 886	'631 073	11 678	23 492	365 126	'1 365 959	'1 457 039	'2 883 560	'63 179
3331	Agriculture, construction, and mining machinery manufacturing .....	—	47	21	2 718	98 642	1 941	3 797	59 008	309 514	512 812	812 725	25 191
33311	Agricultural implement manufacturing .....	—	9	4	1 284	45 181	956	1 960	28 230	185 956	335 529	505 133	D
333111	Farm machinery and equipment manufacturing ..	8	8	3	e	D	D	D	D	D	D	D	D
333112	Lawn and garden tractor and home lawn and garden equipment manufacturing ..	—	1	1	g	D	D	D	D	D	D	D	D
33312	Construction machinery manufacturing .....	2	11	6	443	16 666	308	601	8 894	37 206	62 143	99 206	D
333120	Construction machinery manufacturing .....	2	11	6	443	16 666	308	601	8 894	37 206	62 143	99 206	D
33313	Mining and oil and gas field machinery manufacturing ....	—	27	11	991	36 795	677	1 236	21 884	86 352	115 140	208 386	D
333131	Mining machinery and equipment manufacturing ..	—	26	11	f	D	D	D	D	D	D	D	D
3332	Industrial machinery manufacturing .....	2	49	17	1 896	73 305	1 129	2 280	38 381	175 883	116 518	292 041	5 885
33322	Plastics and rubber industry machinery manufacturing ....	6	4	2	f	D	D	D	D	D	D	D	1 358
333220	Plastics and rubber industry machinery manufacturing ..	6	4	2	f	D	D	D	D	D	D	D	1 358
33329	Other industrial machinery manufacturing .....	2	40	15	1 349	56 239	849	1 648	27 896	133 642	94 525	227 087	4 510
333293	Printing machinery and equipment manufacturing ..	—	8	2	313	13 809	214	418	8 264	25 925	16 239	42 787	762
333294	Food product machinery manufacturing .....	1	7	2	208	11 677	83	189	3 620	25 141	16 253	41 670	734
333298	All other industrial machinery manufacturing .....	2	20	11	785	28 718	527	986	15 071	77 366	57 805	133 249	2 873
3333	Commercial and service industry machinery manufacturing .....	'3	'39	'9	'1 494	'41 681	1 066	2 149	22 872	'73 932	'84 618	'157 301	'2 602
33331	Commercial and service industry machinery manufacturing .....	'3	'39	'9	'1 494	'41 681	1 066	2 149	22 872	'73 932	'84 618	'157 301	'2 602
333311	Automatic vending machine manufacturing .....	—	1	1	c	D	D	D	D	D	D	D	D
333315	Photographic and photocopying equipment manufacturing .....	'2	'10	'1	'226	'8 982	145	223	4 358	'18 233	'16 561	'34 794	'841
333319	Other commercial and service industry machinery manufacturing .....	6	19	5	1 065	27 256	759	1 577	15 070	42 692	27 120	69 270	1 563
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	3	34	18	5 039	188 894	3 995	8 279	134 041	244 354	292 050	580 573	8 369
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	3	34	18	5 039	188 894	3 995	8 279	134 041	244 354	292 050	580 573	8 369
333411	Air purification equipment manufacturing .....	—	6	3	c	D	D	D	D	D	D	D	235
333414	Heating equipment (except warm air furnaces) manufacturing .....	—	9	3	321	10 941	252	488	7 103	31 696	19 806	51 128	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	3	17	12	4 456	167 870	3 578	7 465	122 926	182 514	243 811	470 605	6 569
3335	Metalworking machinery manufacturing .....	—	53	17	1 339	54 156	829	1 642	27 504	140 778	76 560	221 454	3 627
33351	Metalworking machinery manufacturing .....	—	53	17	1 339	54 156	829	1 642	27 504	140 778	76 560	221 454	3 627
333511	Industrial mold manufacturing .....	—	15	5	267	8 630	194	359	5 983	24 731	9 809	35 424	2 012
333512	Machine tool (metal cutting types) manufacturing .....	—	4	3	334	15 712	171	359	6 348	22 378	34 825	61 874	D
333513	Machine tool (metal forming types) manufacturing .....	—	1	1	c	D	D	D	D	D	D	D	D

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	<b>VIRGINIA—Con.</b>												
333	Machinery manufacturing—Con.												
3335	Metalworking machinery manufacturing—Con.												
33351	Metalworking machinery manufacturing—Con.												
333514	Special die and tool, die set, jig, and fixture manufacturing .....	2	22	4	363	14 075	197	379	5 850	36 835	9 562	46 210	524
333515	Cutting tool and machine tool accessory manufacturing...	—	7	3	196	7 332	162	309	5 528	25 613	13 009	38 604	121
3336	Engine, turbine, and power transmission equipment manufacturing .....	2	12	5	601	26 766	362	741	13 601	68 582	65 980	152 031	1 691
33361	Engine, turbine, and power transmission equipment manufacturing .....	2	12	5	601	26 766	362	741	13 601	68 582	65 980	152 031	1 691
333611	Turbine and turbine generator set units manufacturing .....	—	2	1	c	D	D	D	D	D	D	D	D
333612	Speed changer, industrial high-speed drive, and gear manufacturing .....	3	3	3	e	D	D	D	D	D	D	D	870
3339	Other general purpose machinery manufacturing .....	1	92	40	3 799	147 629	2 356	4 604	69 719	352 916	308 501	667 435	15 814
33391	Pump and compressor manufacturing .....	—	11	5	570	23 111	289	563	8 987	74 336	61 932	140 680	6 401
333911	Pump and pumping equipment manufacturing ..	—	4	1	e	D	D	D	D	D	D	D	346
333912	Air and gas compressor manufacturing .....	—	7	4	e	D	D	D	D	D	D	D	6 055
33392	Material handling equipment manufacturing .....	—	35	16	1 471	55 616	936	1 928	25 534	117 779	127 306	244 854	5 485
333922	Conveyor and conveying equipment manufacturing ..	1	21	11	885	36 737	515	1 095	16 367	67 384	74 303	143 339	5 074
333923	Overhead traveling crane, hoist, and monorail system manufacturing .....	—	5	2	407	13 325	294	564	5 818	44 339	36 743	79 819	D
333924	Industrial truck, tractor, trailer, and stacker machinery manufacturing ..	—	7	3	c	D	D	D	D	D	D	D	155
33399	All other general purpose machinery manufacturing ....	2	46	19	1 758	68 902	1 131	2 113	35 198	160 801	119 263	281 901	3 928
333991	Power-driven handtool manufacturing .....	—	3	2	c	D	D	D	D	D	D	D	D
333993	Packaging machinery manufacturing .....	—	10	7	585	27 369	309	630	11 562	53 430	47 662	101 390	1 203
333999	All other miscellaneous general purpose machinery manufacturing .....	4	23	7	696	23 096	463	786	12 016	55 243	35 752	91 152	1 525
334	Computer and electronic product manufacturing .....	1	254	99	19 038	816 694	9 968	19 725	311 930	2 874 867	2 049 813	4 981 698	166 143
3341	Computer and peripheral equipment manufacturing .....	—	29	9	2 321	69 184	1 820	3 305	40 800	434 895	857 895	1 296 221	52 680
33411	Computer and peripheral equipment manufacturing ....	—	29	9	2 321	69 184	1 820	3 305	40 800	434 895	857 895	1 296 221	52 680
334111	Electronic computer manufacturing .....	—	9	4	g	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment manufacturing ..	—	16	4	g	D	D	D	D	D	D	D	D
3342	Communications equipment manufacturing .....	2	45	19	2 165	82 795	1 074	2 286	27 794	204 005	272 394	467 764	D
33421	Telephone apparatus manufacturing .....	4	14	7	983	43 035	300	670	9 338	68 326	69 086	142 211	2 275
334210	Telephone apparatus manufacturing .....	4	14	7	983	43 035	300	670	9 338	68 326	69 086	142 211	2 275
33422	Radio and television broadcasting and wireless communications equipment manufacturing .....	1	17	8	815	24 800	632	1 313	14 305	101 697	166 308	254 610	D
334220	Radio and television broadcasting and wireless communications equipment manufacturing .....	1	17	8	815	24 800	632	1 313	14 305	101 697	166 308	254 610	D
33429	Other communications equipment manufacturing ....	1	14	4	367	14 960	142	303	4 151	33 982	37 000	70 943	702
334290	Other communications equipment manufacturing ..	1	14	4	367	14 960	142	303	4 151	33 982	37 000	70 943	702
3343	Audio and video equipment manufacturing .....	2	7	2	197	7 732	138	281	3 458	11 673	10 427	22 252	D
33431	Audio and video equipment manufacturing .....	2	7	2	197	7 732	138	281	3 458	11 673	10 427	22 252	D
334310	Audio and video equipment manufacturing .....	2	7	2	197	7 732	138	281	3 458	11 673	10 427	22 252	D

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<b>VIRGINIA—Con.</b>													
334	Computer and electronic product manufacturing—Con.												
3344	Semiconductor and other electronic component manufacturing .....	2	67	32	5 129	203 129	3 096	5 951	108 470	742 436	360 487	1 146 721	59 114
33441	Semiconductor and other electronic component manufacturing .....	2	67	32	5 129	203 129	3 096	5 951	108 470	742 436	360 487	1 146 721	59 114
334412	Bare printed circuit board manufacturing .....	—	9	6	602	24 529	468	1 041	17 313	46 260	17 160	62 595	4 310
334413	Semiconductor and related device manufacturing .....	1	14	8	2 749	119 498	1 734	3 221	71 122	565 922	273 788	881 118	D
334414	Electronic capacitor manufacturing .....	—	2	2	c	D	D	D	D	D	D	D	D
334415	Electronic resistor manufacturing .....	—	1	1	c	D	D	D	D	D	D	D	D
334417	Electronic connector manufacturing .....	2	5	1	123	5 392	59	109	1 922	11 134	3 915	15 202	359
334418	Printed circuit assembly (electronic assembly) manufacturing .....	3	12	6	474	13 505	262	503	5 518	25 145	28 961	53 547	969
334419	Other electronic component manufacturing .....	5	22	8	864	32 722	326	619	8 483	80 989	26 855	111 140	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	—	85	35	8 187	415 099	3 212	6 439	107 961	1 233 248	484 488	1 735 860	33 662
33451	Navigational, measuring, electromedical, and control instruments manufacturing .....	—	85	35	8 187	415 099	3 212	6 439	107 961	1 233 248	484 488	1 735 860	33 662
334510	Electromedical and electrotherapeutic apparatus manufacturing .....	—	5	2	c	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	—	19	13	6 140	331 371	2 053	4 285	68 690	1 050 221	319 414	1 385 306	27 173
334513	Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables .....	3	17	5	405	16 456	213	427	6 102	50 195	19 476	69 315	649
334514	Totalizing fluid meter and counting device manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
334515	Instrument manufacturing for measuring and testing electricity and electrical signals .....	4	12	4	374	13 848	179	317	5 352	18 878	13 824	33 271	527
334516	Analytical laboratory instrument manufacturing .....	2	8	2	112	4 661	24	49	1 099	6 115	10 266	17 584	195
334517	Irradiation apparatus manufacturing .....	—	2	1	c	D	D	D	D	D	D	D	D
334518	Watch, clock, and part manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
334519	Other measuring and controlling device manufacturing .....	2	11	3	161	10 330	46	86	2 395	15 526	8 514	24 156	840
3346	Manufacturing and reproducing magnetic and optical media .....	—	21	2	1 039	38 755	628	1 463	23 447	248 610	64 122	312 880	D
33461	Manufacturing and reproducing magnetic and optical media .....	—	21	2	1 039	38 755	628	1 463	23 447	248 610	64 122	312 880	D
334612	Prerecorded compact disc (except software), tape, and record reproducing .....	—	14	2	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	—	101	50	10 249	441 429	6 396	12 647	206 105	1 423 544	897 962	2 332 675	35 895
3351	Electric lighting equipment manufacturing .....	—	14	7	g	D	D	D	D	D	D	D	D
33511	Electric lamp bulb and part manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
335110	Electric lamp bulb and part manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
33512	Lighting fixture manufacturing .....	—	13	6	f	D	D	D	D	D	D	D	D
335121	Residential electric lighting fixture manufacturing .....	—	5	2	122	2 730	98	153	1 578	5 767	3 097	8 949	30
335129	Other lighting equipment manufacturing .....	—	3	2	f	D	D	D	D	D	D	D	D
3352	Household appliance manufacturing .....	9	3	2	f	D	D	D	D	D	D	D	D
33521	Small electrical appliance manufacturing .....	9	3	2	f	D	D	D	D	D	D	D	D
335212	Household vacuum cleaner manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D

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<b>VIRGINIA—Con.</b>													
335	Electrical equipment, appliance, and component manufacturing—Con.												
3353	Electrical equipment manufacturing .....	—	57	23	6 145	290 181	3 446	7 107	115 319	997 618	513 920	1 528 477	26 030
33531	Electrical equipment manufacturing .....	—	57	23	6 145	290 181	3 446	7 107	115 319	997 618	513 920	1 528 477	26 030
335311	Power, distribution, and specialty transformer manufacturing .....	—	11	8	1 724	64 325	1 198	2 466	34 183	248 126	165 077	413 895	11 212
335312	Motor and generator manufacturing .....	4	13	5	1 109	42 209	937	1 996	33 519	107 685	42 530	149 824	4 938
335313	Switchgear and switchboard apparatus manufacturing ..	1	8	2	228	8 183	158	313	3 723	16 895	21 525	38 702	308
335314	Relay and industrial control manufacturing .....	—	25	8	3 084	175 464	1 153	2 332	43 894	624 912	284 788	926 056	9 572
3359	Other electrical equipment and component manufacturing .....	—	27	18	2 275	83 041	1 617	3 110	47 126	225 878	229 679	443 985	5 089
33592	Communication and energy wire and cable manufacturing .	—	7	6	g	D	D	D	D	D	D	D	D
335921	Fiber optic cable manufacturing .....	—	2	2	c	D	D	D	D	D	D	D	D
335929	Other communication and energy wire manufacturing .	—	5	4	1 109	37 787	811	1 471	25 028	90 748	153 602	234 963	D
33593	Wiring device manufacturing ...	2	6	4	c	D	D	D	D	D	D	D	158
335931	Current-carrying wiring device manufacturing .....	2	6	4	c	D	D	D	D	D	D	D	158
33599	All other electrical equipment and component manufacturing .....	1	12	8	837	31 008	609	1 221	15 536	97 129	47 456	140 914	2 242
335999	All other miscellaneous electrical equipment and component manufacturing ..	1	12	8	837	31 008	609	1 221	15 536	97 129	47 456	140 914	2 242
336	Transportation equipment manufacturing .....	—	187	91	36 117	1 681 299	25 090	51 154	1 060 206	5 007 644	5 205 122	10 205 760	211 109
3361	Motor vehicle manufacturing .....	—	6	3	h	D	D	D	D	D	D	D	D
33611	Automobile and light duty motor vehicle manufacturing .....	—	5	2	g	D	D	D	D	D	D	D	D
336111	Automobile manufacturing ...	8	2	1	c	D	D	D	D	D	D	D	D
336112	Light truck and utility vehicle manufacturing .....	—	3	1	g	D	D	D	D	D	D	D	D
33612	Heavy duty truck manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
336120	Heavy duty truck manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
3362	Motor vehicle body and trailer manufacturing .....	1	29	15	1 600	44 421	1 328	2 456	34 255	131 282	125 591	253 156	D
33621	Motor vehicle body and trailer manufacturing .....	1	29	15	1 600	44 421	1 328	2 456	34 255	131 282	125 591	253 156	D
336211	Motor vehicle body manufacturing .....	3	13	8	414	13 869	287	543	8 024	26 152	37 748	64 726	979
336212	Truck trailer manufacturing ..	—	4	2	f	D	D	D	D	D	D	D	D
336214	Travel trailer and camper manufacturing .....	4	10	5	e	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	—	76	43	8 214	315 879	6 388	13 780	211 629	883 652	1 225 252	2 115 958	49 589
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	—	20	8	g	D	D	D	D	D	D	D	D
336312	Gasoline engine and engine parts manufacturing .....	—	19	7	1 821	83 158	1 359	2 928	49 887	196 292	136 988	337 107	16 375
33632	Motor vehicle electrical and electronic equipment manufacturing .....	1	15	6	f	D	D	D	D	D	D	D	D
336321	Vehicular lighting equipment manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
336322	Other motor vehicle electrical and electronic equipment manufacturing .....	2	14	5	411	12 815	307	627	7 797	57 922	37 495	95 286	3 319
33633	Motor vehicle steering and suspension component (except spring) manufacturing .....	—	2	2	c	D	D	D	D	D	D	D	D
336330	Motor vehicle steering and suspension component (except spring) manufacturing .....	—	2	2	c	D	D	D	D	D	D	D	D
33634	Motor vehicle brake system manufacturing .....	—	7	5	1 316	44 706	1 003	2 026	29 534	114 951	74 846	189 053	9 419
336340	Motor vehicle brake system manufacturing .....	—	7	5	1 316	44 706	1 003	2 026	29 534	114 951	74 846	189 053	9 419
33635	Motor vehicle transmission and power train parts manufacturing .....	—	10	6	1 374	62 516	1 089	2 489	42 921	165 883	603 462	773 193	5 747
336350	Motor vehicle transmission and power train parts manufacturing .....	—	10	6	1 374	62 516	1 089	2 489	42 921	165 883	603 462	773 193	5 747
33636	Motor vehicle seating and interior trim manufacturing ....	—	5	4	1 100	43 192	805	1 795	31 023	89 862	164 436	254 331	3 872
336360	Motor vehicle seating and interior trim manufacturing ..	—	5	4	1 100	43 192	805	1 795	31 023	89 862	164 436	254 331	3 872

**Table 1. Industry Statistics for the State: 2002—Con.**

[Includes data for industry groups and industries with 100 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>VIRGINIA—Con.</b>													
336	Transportation equipment manufacturing—Con.												
3363	Motor vehicle parts manufacturing—Con.												
33639	Other motor vehicle parts manufacturing .....	2	14	11	1 657	48 447	1 444	3 198	37 628	196 603	154 117	355 962	8 584
336399	All other motor vehicle parts manufacturing .....	2	14	11	1 657	48 447	1 444	3 198	37 628	196 603	154 117	355 962	8 584
3364	Aerospace product and parts manufacturing .....	—	14	7	1 556	107 096	488	1 044	30 562	172 757	148 805	324 127	16 285
33641	Aerospace product and parts manufacturing .....	—	14	7	1 556	107 096	488	1 044	30 562	172 757	148 805	324 127	16 285
336413	Other aircraft parts and auxiliary equipment manufacturing .....	—	4	3	c	D	D	D	D	D	D	D	D
336414	Guided missile and space vehicle manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
336415	Guided missile and space vehicle propulsion unit and propulsion unit parts manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
3365	Railroad rolling stock manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
33651	Railroad rolling stock manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
336510	Railroad rolling stock manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
3366	Ship and boat building .....	—	55	20	20 459	932 757	13 749	26 681	575 381	2 611 886	561 365	3 173 251	41 143
33661	Ship and boat building .....	—	55	20	20 459	932 757	13 749	26 681	575 381	2 611 886	561 365	3 173 251	41 143
336611	Ship building and repairing ..	—	33	16	20 077	921 157	13 441	26 081	566 762	2 594 817	543 522	3 138 339	40 532
336612	Boat building .....	1	22	4	382	11 600	308	600	8 619	17 069	17 843	34 912	611
3369	Other transportation equipment manufacturing .....	—	5	2	c	D	D	D	D	D	D	D	D
33699	Other transportation equipment manufacturing .....	—	5	2	c	D	D	D	D	D	D	D	D
336999	All other transportation equipment manufacturing ..	—	3	1	c	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	1	545	111	18 597	483 582	15 809	29 934	360 637	1 309 571	963 601	2 296 818	59 284
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	1	445	74	15 197	376 900	13 120	24 797	289 590	990 017	747 829	1 747 253	46 045
33711	Wood kitchen cabinet and countertop manufacturing ....	1	258	20	2 887	84 750	2 364	4 655	61 492	275 672	214 112	489 438	4 930
337110	Wood kitchen cabinet and countertop manufacturing ..	1	258	20	2 887	84 750	2 364	4 655	61 492	275 672	214 112	489 438	4 930
33712	Household and institutional furniture manufacturing .....	—	187	54	12 310	292 150	10 756	20 142	228 098	714 345	533 717	1 257 815	41 115
337121	Upholstered household furniture manufacturing ....	—	54	12	1 998	48 008	1 689	3 249	35 530	113 268	102 193	213 905	24 174
337122	Nonupholstered wood household furniture manufacturing .....	1	110	34	8 893	209 788	7 865	14 382	167 146	496 213	366 025	874 398	12 722
337124	Metal household furniture manufacturing .....	2	8	3	c	D	D	D	D	D	D	D	D
337127	Institutional furniture manufacturing .....	—	10	4	956	23 198	790	1 666	16 221	51 399	47 007	98 544	2 668
337129	Wood television, radio, and sewing machine cabinet manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
3372	Office furniture (including fixtures) manufacturing .....	2	76	25	2 385	72 910	1 919	3 735	50 355	170 748	108 626	293 782	3 860
33721	Office furniture (including fixtures) manufacturing .....	2	76	25	2 385	72 910	1 919	3 735	50 355	170 748	108 626	293 782	3 860
337211	Wood office furniture manufacturing .....	1	11	2	e	D	D	D	D	D	D	D	217
337212	Custom architectural woodwork and millwork manufacturing .....	1	41	12	824	27 411	596	1 164	16 599	49 886	30 542	80 944	1 114
337214	Office furniture (except wood) manufacturing .....	—	3	3	f	D	D	D	D	D	D	D	1 553
337215	Showcase, partition, shelving, and locker manufacturing .....	7	21	8	718	20 978	555	1 104	12 274	43 621	28 530	72 699	976
3379	Other furniture related product manufacturing .....	3	24	12	1 015	33 772	770	1 402	20 692	148 806	107 146	255 783	9 379
33791	Mattress manufacturing .....	2	15	10	849	28 784	680	1 244	18 927	139 954	99 386	239 154	8 909
337910	Mattress manufacturing .....	2	15	10	849	28 784	680	1 244	18 927	139 954	99 386	239 154	8 909
33792	Blind and shade manufacturing .....	6	9	2	166	4 988	90	158	1 765	8 852	7 760	16 629	470
337920	Blind and shade manufacturing .....	6	9	2	166	4 988	90	158	1 765	8 852	7 760	16 629	470

**Table 1. Industry Statistics for the State: 2002—Con.**

[Includes data for industry groups and industries with 100 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>VIRGINIA—Con.</b>													
339	Miscellaneous manufacturing . . . . .	3	555	90	10 299	328 347	7 377	14 406	187 582	985 029	623 655	1 594 032	51 544
3391	Medical equipment and supplies manufacturing . . . . .	4	225	28	3 463	117 761	2 440	4 737	68 357	376 651	236 227	606 815	21 307
33911	Medical equipment and supplies manufacturing . . . . .	4	225	28	3 463	117 761	2 440	4 737	68 357	376 651	236 227	606 815	21 307
339111	Laboratory apparatus and furniture manufacturing . . . . .	3	8	3	199	8 601	86	170	2 622	18 613	13 119	31 729	575
339112	Surgical and medical instrument manufacturing . . . . .	3	7	4	346	11 245	259	493	6 565	45 564	31 519	76 220	1 249
339113	Surgical appliance and supplies manufacturing . . . . .	4	34	10	1 271	47 204	856	1 713	25 546	182 486	145 110	328 390	12 347
339115	Ophthalmic goods manufacturing . . . . .	7	12	4	815	24 998	609	1 148	14 719	87 830	36 413	118 283	4 672
339116	Dental laboratories . . . . .	4	152	6	751	23 402	575	1 116	17 431	37 783	8 748	46 536	2 237
3399	Other miscellaneous manufacturing . . . . .	2	330	62	6 836	210 586	4 937	9 669	119 225	608 378	387 428	987 217	30 237
33991	Jewelry and silverware manufacturing . . . . .	1	35	2	328	10 583	267	477	6 980	24 645	36 183	58 922	746
339911	Jewelry (except costume) manufacturing . . . . .	—	22	1	192	6 662	146	233	3 910	14 563	29 051	42 876	199
33992	Sporting and athletic goods manufacturing . . . . .	2	22	6	1 227	46 274	760	1 626	20 246	200 752	73 768	269 337	17 199
339920	Sporting and athletic goods manufacturing . . . . .	2	22	6	1 227	46 274	760	1 626	20 246	200 752	73 768	269 337	17 199
33993	Doll, toy, and game manufacturing . . . . .	—	17	2	c	D	D	D	D	D	D	D	1 585
339932	Game, toy, and children's vehicle manufacturing . . . . .	—	16	2	c	D	D	D	D	D	D	D	D
33994	Office supplies (except paper) manufacturing . . . . .	4	11	5	e	D	D	D	D	D	D	D	536
339943	Marking device manufacturing . . . . .	4	9	5	361	10 167	264	610	6 120	16 426	16 631	33 017	D
33995	Sign manufacturing . . . . .	2	147	26	1 896	60 901	1 275	2 351	32 146	110 604	71 559	181 781	5 211
339950	Sign manufacturing . . . . .	2	147	26	1 896	60 901	1 275	2 351	32 146	110 604	71 559	181 781	5 211
33999	All other miscellaneous manufacturing . . . . .	2	98	21	2 825	77 466	2 223	4 363	50 923	202 711	148 549	351 247	4 960
339991	Gasket, packing, and sealing device manufacturing . . . . .	3	8	6	1 327	36 473	1 079	2 259	25 284	109 849	66 019	176 516	1 573
339992	Musical instrument manufacturing . . . . .	1	12	2	c	D	D	D	D	D	D	D	242
339994	Broom, brush, and mop manufacturing . . . . .	—	5	2	166	5 794	123	252	3 554	16 867	12 124	28 360	437
339999	All other miscellaneous manufacturing . . . . .	1	72	11	1 158	30 506	878	1 575	18 721	67 663	65 239	132 936	D

<sup>1</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Industries with 100 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 100 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: c–100 to 249 employees; e–250 to 499 employees; f–500 to 999 employees; g–1,000 to 2,499 employees; h–2,500 to 4,999 employees; i–5,000 to 9,999 employees; 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.

<sup>4</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

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

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA COMBINED STATISTICAL AREA</b>												
31-33	Manufacturing .....	-	538	215	38 815	1 501 895	27 935	56 832	872 226	4 018 433	4 590 354	8 616 520	814 982
311	Food manufacturing .....	3	22	8	f	D	D	D	D	D	D	D	D
3119	Other food manufacturing .....	2	4	2	e	D	D	D	D	D	D	D	D
31191	Snack food manufacturing .....	-	2	1	e	D	D	D	D	D	D	D	D
311919	Other snack food manufacturing .....	-	2	1	e	D	D	D	D	D	D	D	D
313	Textile mills .....	2	12	10	1 273	40 086	1 016	2 106	26 790	91 476	111 864	201 577	5 671
3132	Fabric mills .....	4	4	4	e	D	D	D	D	D	D	D	D
3133	Textile and fabric finishing and fabric coating mills .....	1	6	4	f	D	D	D	D	D	D	D	D
31331	Textile and fabric finishing mills .....	6	3	2	e	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills .....	6	3	2	e	D	D	D	D	D	D	D	D
31332	Fabric coating mills .....	-	3	2	e	D	D	D	D	D	D	D	D
313320	Fabric coating mills .....	-	3	2	e	D	D	D	D	D	D	D	D
315	Apparel manufacturing .....	7	11	7	f	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing .....	8	6	3	e	D	D	D	D	D	D	D	D
31523	Women's and girls' cut and sew apparel manufacturing .....	9	2	1	e	D	D	D	D	D	D	D	D
315239	Women's and girls' cut and sew other outerwear manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	2	41	11	g	D	D	D	D	D	D	D	D
3219	Other wood product manufacturing .....	-	21	6	f	D	D	D	D	D	D	D	D
32191	Millwork .....	-	7	3	e	D	D	D	D	D	D	D	D
321918	Other millwork (including flooring) .....	-	3	2	e	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	1	11	9	f	D	D	D	D	D	D	D	D
3221	Pulp, paper, and paperboard mills .....	-	1	1	e	D	D	D	D	D	D	D	D
32212	Paper mills .....	-	1	1	e	D	D	D	D	D	D	D	D
322121	Paper (except newsprint) mills .....	-	1	1	e	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing .....	3	10	8	e	D	D	D	D	D	D	D	D
32221	Paperboard container manufacturing .....	3	7	6	e	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	-	61	18	h	D	D	D	D	D	D	D	51 443
3231	Printing and related support activities .....	-	61	18	h	D	D	D	D	D	D	D	51 443
32311	Printing .....	-	56	18	h	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing .....	2	29	7	f	D	D	D	D	D	D	D	D
323111	Commercial gravure printing .....	-	1	1	e	D	D	D	D	D	D	D	D
323112	Commercial flexographic printing .....	-	4	3	e	D	D	D	D	D	D	D	D
323117	Books printing .....	-	5	5	g	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	-	17	5	i	D	D	D	D	D	D	D	D
3251	Basic chemical manufacturing .....	-	7	1	i	D	D	D	D	D	D	D	D
32519	Other basic organic chemical manufacturing .....	-	2	1	i	D	D	D	D	D	D	D	D
325199	All other basic organic chemical manufacturing .....	-	2	1	i	D	D	D	D	D	D	D	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
32522	Artificial and synthetic fibers and filaments manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
3254	Pharmaceutical and medicine manufacturing .....	-	4	2	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing .....	-	4	2	f	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA COMBINED STATISTICAL AREA—Con.</b>												
326	Plastics and rubber products manufacturing .....	-	31	20	g	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	1	23	15	g	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	2	15	10	g	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	2	15	10	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing ...	-	8	5	f	D	D	D	D	D	D	D	D
32629	Other rubber product manufacturing .....	-	5	4	f	D	D	D	D	D	D	D	D
326291	Rubber product manufacturing for mechanical use .....	-	2	2	f	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing .....	-	34	15	g	D	D	D	D	D	D	D	D
3272	Glass and glass product manufacturing .....	-	6	4	g	D	D	D	D	D	D	D	D
32721	Glass and glass product manufacturing .....	-	6	4	g	D	D	D	D	D	D	D	D
327211	Flat glass manufacturing ....	-	2	2	f	D	D	D	D	D	D	D	D
3273	Cement and concrete product manufacturing .....	4	18	7	e	D	D	D	D	D	D	D	D
331	Primary metal manufacturing .....	4	17	12	g	D	D	D	D	D	D	D	D
3312	Steel product manufacturing from purchased steel .....	-	2	2	e	D	D	D	D	D	D	D	D
33121	Iron and steel pipe and tube manufacturing from purchased steel .....	-	2	2	e	D	D	D	D	D	D	D	D
331210	Iron and steel pipe and tube manufacturing from purchased steel .....	-	2	2	e	D	D	D	D	D	D	D	D
3315	Foundries .....	5	10	6	e	D	D	D	D	D	D	D	D
33152	Nonferrous metal foundries ....	3	6	4	e	D	D	D	D	D	D	D	D
331521	Aluminum die-casting foundries .....	4	3	3	e	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	-	104	36	3 516	119 896	2 808	5 550	84 579	344 979	223 544	569 535	12 285
3321	Forging and stamping.....	-	8	5	f	D	D	D	D	D	D	D	D
33211	Forging and stamping.....	-	8	5	f	D	D	D	D	D	D	D	D
332111	Iron and steel forging .....	-	3	2	e	D	D	D	D	D	D	D	D
3322	Cutlery and handtool manufacturing .....	-	5	3	f	D	D	D	D	D	D	D	D
33221	Cutlery and handtool manufacturing .....	-	5	3	f	D	D	D	D	D	D	D	D
332212	Hand and edge tool manufacturing .....	-	5	3	f	D	D	D	D	D	D	D	D
3323	Architectural and structural metals manufacturing .....	-	17	9	f	D	D	D	D	D	D	D	D
33231	Plate work and fabricated structural product manufacturing .....	-	8	4	e	D	D	D	D	D	D	D	D
332312	Fabricated structural metal manufacturing .....	-	8	4	e	D	D	D	D	D	D	D	D
33232	Ornamental and architectural metal products manufacturing .....	-	9	5	e	D	D	D	D	D	D	D	D
332321	Metal window and door manufacturing .....	-	3	2	e	D	D	D	D	D	D	D	D
3324	Boiler, tank, and shipping container manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
332431	Metal can manufacturing ....	-	1	1	e	D	D	D	D	D	D	D	D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	1	54	10	f	D	D	D	D	D	D	D	D
33271	Machine shops .....	1	48	8	f	D	D	D	D	D	D	D	D
332710	Machine shops .....	1	48	8	f	D	D	D	D	D	D	D	D
3329	Other fabricated metal product manufacturing .....	1	7	4	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product manufacturing .....	1	6	4	f	D	D	D	D	D	D	D	D
332991	Ball and roller bearing manufacturing .....	1	3	3	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA COMBINED STATISTICAL AREA—Con.</b>												
333	Machinery manufacturing .....	—	38	14	4 262	155 040	3 354	6 662	107 158	204 060	187 568	426 958	D
3331	Agriculture, construction, and mining machinery manufacturing .....	—	5	4	f	D	D	D	D	D	D	D	D
33312	Construction machinery manufacturing .....	—	3	3	e	D	D	D	D	D	D	D	D
333120	Construction machinery manufacturing .....	—	3	3	e	D	D	D	D	D	D	D	D
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	—	4	3	g	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	—	4	3	g	D	D	D	D	D	D	D	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	—	3	3	g	D	D	D	D	D	D	D	D
3335	Metalworking machinery manufacturing .....	—	8	1	e	D	D	D	D	D	D	D	D
33351	Metalworking machinery manufacturing .....	—	8	1	e	D	D	D	D	D	D	D	D
333515	Cutting tool and machine tool accessory manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing .....	—	12	5	f	D	D	D	D	D	D	D	D
33391	Pump and compressor manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
333913	Measuring and dispensing pump manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
33392	Material handling equipment manufacturing .....	—	6	2	e	D	D	D	D	D	D	D	D
333923	Overhead traveling crane, hoist, and monorail system manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	—	9	5	g	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	—	2	1	f	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component manufacturing .....	—	2	1	f	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	—	6	3	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing .....	—	6	3	f	D	D	D	D	D	D	D	D
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use .....	—	2	2	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	—	17	10	h	D	D	D	D	D	D	D	D
3352	Household appliance manufacturing .....	1	2	2	g	D	D	D	D	D	D	D	D
33521	Small electrical appliance manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
335212	Household vacuum cleaner manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
33522	Major appliance manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
335228	Other major household appliance manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	—	11	7	g	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	—	11	7	g	D	D	D	D	D	D	D	D
335312	Motor and generator manufacturing .....	—	8	5	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA COMBINED STATISTICAL AREA—Con.</b>													
336	Transportation equipment manufacturing .....	—	20	13	h	D	D	D	D	D	D	D	D
3362	Motor vehicle body and trailer manufacturing .....	2	5	4	e	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer manufacturing .....	2	5	4	e	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	—	12	8	h	D	D	D	D	D	D	D	D
33633	Motor vehicle steering and suspension component (except spring) manufacturing .....	—	2	2	g	D	D	D	D	D	D	D	D
336330	Motor vehicle steering and suspension component (except spring) manufacturing .....	—	2	2	g	D	D	D	D	D	D	D	D
33634	Motor vehicle brake system manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
336340	Motor vehicle brake system manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts manufacturing .....	—	4	3	g	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts manufacturing .....	—	4	3	g	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	1	30	8	f	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	3	21	3	e	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	3	9	3	e	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	1	44	11	g	D	D	D	D	D	D	D	D
3391	Medical equipment and supplies manufacturing .....	3	19	3	e	D	D	D	D	D	D	D	D
33911	Medical equipment and supplies manufacturing .....	3	19	3	e	D	D	D	D	D	D	D	D
339114	Dental equipment and supplies manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
3399	Other miscellaneous manufacturing .....	—	25	8	f	D	D	D	D	D	D	D	D
33999	All other miscellaneous manufacturing .....	—	14	5	f	D	D	D	D	D	D	D	D
<b>Bristol, VA Metropolitan Statistical Area</b>													
31-33	Manufacturing .....	2	102	45	7 675	267 259	5 794	11 964	174 080	469 494	582 582	1 083 781	17 868
311	Food manufacturing .....	5	8	4	672	20 908	376	762	10 102	80 608	82 317	161 737	2 621
3119	Other food manufacturing .....	2	3	2	e	D	D	D	D	D	D	D	D
31191	Snack food manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
311919	Other snack food manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
315	Apparel manufacturing .....	8	3	2	e	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
31523	Women's and girls' cut and sew apparel manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
315239	Women's and girls' cut and sew other outerwear manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
32522	Artificial and synthetic fibers and filaments manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	—	5	3	e	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing .....	—	5	3	e	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA COMBINED STATISTICAL AREA—Con.</b>												
	<b>Bristol, VA Metropolitan Statistical Area—Con.</b>												
332	Fabricated metal product manufacturing .....	-	20	10	863	32 445	694	1 303	22 212	106 815	100 394	204 815	2 019
3324	Boiler, tank, and shipping container manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
332431	Metal can manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	-	10	6	2 899	108 285	2 382	4 930	79 372	32 577	109 923	180 259	2 024
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
33392	Material handling equipment manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
333923	Overhead traveling crane, hoist, and monorail system manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	2	6	4	g	D	D	D	D	D	D	D	1 422
3352	Household appliance manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
33521	Small electrical appliance manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
335212	Household vacuum cleaner manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	8	7	665	21 666	533	1 227	14 690	68 458	63 776	128 090	4 546
3362	Motor vehicle body and trailer manufacturing .....	2	5	4	e	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer manufacturing .....	2	5	4	e	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	-	3	3	e	D	D	D	D	D	D	D	D
	<b>Johnson City, TN Metropolitan Statistical Area</b>												
31-33	Manufacturing .....	-	212	83	11 329	337 488	8 799	16 432	216 338	838 115	989 747	1 821 530	42 793
313	Textile mills .....	2	7	6	652	20 409	492	1 038	12 399	37 849	34 643	72 711	3 162
3133	Textile and fabric finishing and fabric coating mills .....	6	3	2	269	8 093	214	476	5 383	15 118	14 484	29 732	D
31331	Textile and fabric finishing mills .....	6	2	2	e	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills .....	6	2	2	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	1	20	5	607	18 664	473	987	10 871	31 833	93 500	123 023	967
3219	Other wood product manufacturing .....	-	9	3	459	14 700	352	778	8 284	24 058	84 083	105 974	705
32191	Millwork .....	-	2	1	e	D	D	D	D	D	D	D	D
321918	Other millwork (including flooring) .....	-	1	1	e	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	-	18	6	688	17 148	507	983	10 944	48 998	17 187	66 059	2 547
3231	Printing and related support activities .....	-	18	6	688	17 148	507	983	10 944	48 998	17 187	66 059	2 547
32311	Printing .....	-	16	6	f	D	D	D	D	D	D	D	D
323117	Books printing .....	-	3	3	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
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<b>JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA COMBINED STATISTICAL AREA—Con.</b>													
<b>Johnson City, TN Metropolitan Statistical Area—Con.</b>													
326	Plastics and rubber products manufacturing .....	—	14	8	646	18 448	529	1 012	13 764	47 653	79 861	127 552	3 875
3261	Plastics product manufacturing ..	—	11	6	e	D	D	D	D	D	D	D	1 373
3262	Rubber product manufacturing ...	—	3	2	e	D	D	D	D	D	D	D	2 502
331	Primary metal manufacturing .....	7	3	2	e	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	1	41	15	1 511	48 360	1 242	2 496	35 665	92 719	71 165	165 111	7 464
3322	Cutlery and handtool manufacturing .....	—	5	3	f	D	D	D	D	D	D	D	D
33221	Cutlery and handtool manufacturing .....	—	5	3	f	D	D	D	D	D	D	D	D
332212	Hand and edge tool manufacturing .....	—	5	3	f	D	D	D	D	D	D	D	D
3323	Architectural and structural metals manufacturing .....	—	6	4	385	10 098	315	615	7 533	18 802	24 870	43 897	D
33232	Ornamental and architectural metal products manufacturing .....	—	6	4	385	10 098	315	615	7 533	18 802	24 870	43 897	D
332321	Metal window and door manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	—	22	4	270	8 359	208	414	5 875	15 425	10 736	26 149	1 141
3329	Other fabricated metal product manufacturing .....	3	4	3	310	12 795	255	518	9 185	25 244	23 769	50 289	2 043
33299	All other fabricated metal product manufacturing .....	3	4	3	310	12 795	255	518	9 185	25 244	23 769	50 289	2 043
332991	Ball and roller bearing manufacturing .....	3	2	2	e	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	—	15	5	960	33 265	696	1 223	20 570	133 137	36 557	166 874	2 250
3335	Metalworking machinery manufacturing .....	—	3	1	e	D	D	D	D	D	D	D	D
33351	Metalworking machinery manufacturing .....	—	3	1	e	D	D	D	D	D	D	D	D
333515	Cutting tool and machine tool accessory manufacturing ...	—	1	1	e	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing .....	—	7	2	350	12 418	174	259	4 764	32 489	19 967	52 089	836
33391	Pump and compressor manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
333913	Measuring and dispensing pump manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	—	8	4	1 291	37 219	866	1 527	19 433	73 695	85 197	158 230	D
3344	Semiconductor and other electronic component manufacturing .....	—	2	1	f	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component manufacturing .....	—	2	1	f	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	—	6	3	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing ...	—	6	3	f	D	D	D	D	D	D	D	D
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use.....	—	2	2	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)					
	<b>JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA COMBINED STATISTICAL AREA—Con.</b>													
	<b>Johnson City, TN Metropolitan Statistical Area—Con.</b>													
335	Electrical equipment, appliance, and component manufacturing .....	-	10	6	g	D	D	D	D	D	D	D	D	
3352	Household appliance manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D	
33522	Major appliance manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D	
335228	Other major household appliance manufacturing ...	-	1	1	f	D	D	D	D	D	D	D	D	
3353	Electrical equipment manufacturing .....	-	8	5	f	D	D	D	D	D	D	D	D	
33531	Electrical equipment manufacturing .....	-	8	5	f	D	D	D	D	D	D	D	D	
335312	Motor and generator manufacturing .....	-	7	5	f	D	D	D	D	D	D	D	D	
336	Transportation equipment manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D	
3363	Motor vehicle parts manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D	
33634	Motor vehicle brake system manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D	
336340	Motor vehicle brake system manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D	
33639	Other motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D	
336399	All other motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D	
337	Furniture and related product manufacturing .....	-	15	4		495	10 515	421	721	7 047	16 320	21 160	38 782	1 682
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	1	10	1		259	5 364	244	391	4 543	9 158	10 912	21 141	68
339	Miscellaneous manufacturing .....	1	21	7		846	22 562	719	1 490	18 034	55 090	33 225	85 095	1 711
3391	Medical equipment and supplies manufacturing .....	2	8	2		335	8 656	317	634	7 774	23 466	9 727	29 303	878
33911	Medical equipment and supplies manufacturing .....	2	8	2		335	8 656	317	634	7 774	23 466	9 727	29 303	878
339114	Dental equipment and supplies manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D	D
3399	Other miscellaneous manufacturing .....	-	13	5		511	13 906	402	856	10 260	31 624	23 498	55 792	833
33999	All other miscellaneous manufacturing .....	-	8	3		434	11 606	349	753	8 933	27 347	22 221	50 243	D
	<b>Kingsport-Bristol, TN-VA Metropolitan Statistical Area</b>													
31-33	Manufacturing .....	-	224	87		19 811	897 148	13 342	28 436	481 808	2 710 824	3 018 025	5 711 209	754 321
313	Textile mills .....	2	5	4		621	19 677	524	1 068	14 391	53 627	77 221	128 866	2 509
3132	Fabric mills .....	6	2	2	e	D	D	D	D	D	D	D	D	D
3133	Textile and fabric finishing and fabric coating mills .....	-	3	2	e	D	D	D	D	D	D	D	D	D
31332	Fabric coating mills .....	-	2	2	e	D	D	D	D	D	D	D	D	D
313320	Fabric coating mills .....	-	2	2	e	D	D	D	D	D	D	D	D	D
315	Apparel manufacturing .....	2	5	4		263	5 295	228	232	4 026	9 568	9 202	18 705	D
321	Wood product manufacturing .....	4	17	5		420	8 433	376	729	6 784	21 916	40 963	63 058	1 022
322	Paper manufacturing .....	1	5	5		560	26 697	414	930	19 383	59 887	108 879	173 680	D
3221	Pulp, paper, and paperboard mills .....	-	1	1	e	D	D	D	D	D	D	D	D	D
32212	Paper mills .....	-	1	1	e	D	D	D	D	D	D	D	D	D
322121	Paper (except newsprint) mills .....	-	1	1	e	D	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	-	36	12		2 343	86 755	1 895	4 331	60 773	164 922	120 881	280 974	48 854
3231	Printing and related support activities .....	-	36	12		2 343	86 755	1 895	4 331	60 773	164 922	120 881	280 974	48 854
32311	Printing .....	-	33	12		2 327	86 117	1 882	4 304	60 349	163 771	120 519	279 461	48 820
323110	Commercial lithographic printing .....	1	17	5		364	10 161	265	487	5 920	28 551	11 645	39 954	D
323111	Commercial gravure printing .....	-	1	1	e	D	D	D	D	D	D	D	D	D
323112	Commercial flexographic printing .....	-	4	3	e	D	D	D	D	D	D	D	D	D
323117	Books printing .....	-	2	2	g	D	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA COMBINED STATISTICAL AREA—Con.</b>												
	<b>Kingsport-Bristol, TN-VA Metropolitan Statistical Area—Con.</b>												
325	Chemical manufacturing .....	—	10	3	8 110	509 029	4 130	9 614	211 061	1 539 165	2 060 561	3 585 515	D
3251	Basic chemical manufacturing ...	—	6	1	i	D	D	D	D	D	D	D	D
32519	Other basic organic chemical manufacturing .....	—	2	1	i	D	D	D	D	D	D	D	D
325199	All other basic organic chemical manufacturing ....	—	2	1	i	D	D	D	D	D	D	D	D
3254	Pharmaceutical and medicine manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	1	12	9	1 221	40 210	996	2 025	28 422	126 774	80 385	204 695	19 933
3261	Plastics product manufacturing ..	3	7	6	625	19 394	509	1 008	13 193	57 221	37 979	93 662	D
32619	Other plastics product manufacturing .....	3	6	5	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	3	6	5	f	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing ...	—	5	3	596	20 816	487	1 017	15 229	69 553	42 406	111 033	D
32629	Other rubber product manufacturing .....	—	4	3	f	D	D	D	D	D	D	D	D
326291	Rubber product manufacturing for mechanical use .....	—	2	2	f	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing .....	—	15	9	1 418	46 297	1 187	2 530	36 824	192 198	89 398	280 873	8 991
3272	Glass and glass product manufacturing .....	—	5	4	g	D	D	D	D	D	D	D	D
32721	Glass and glass product manufacturing .....	—	5	4	g	D	D	D	D	D	D	D	D
327211	Flat glass manufacturing ....	—	2	2	f	D	D	D	D	D	D	D	D
331	Primary metal manufacturing .....	2	10	7	687	22 790	561	1 161	16 896	44 684	68 652	114 224	D
3312	Steel product manufacturing from purchased steel .....	—	2	2	e	D	D	D	D	D	D	D	D
33121	Iron and steel pipe and tube manufacturing from purchased steel .....	—	2	2	e	D	D	D	D	D	D	D	D
331210	Iron and steel pipe and tube manufacturing from purchased steel .....	—	2	2	e	D	D	D	D	D	D	D	D
3315	Foundries .....	3	6	3	345	11 681	311	653	10 065	19 523	16 597	36 127	D
332	Fabricated metal product manufacturing .....	—	43	11	1 142	39 091	872	1 751	26 702	145 445	51 985	199 609	2 802
3321	Forging and stamping.....	—	3	3	465	16 007	377	816	11 507	37 175	23 245	60 976	841
33211	Forging and stamping.....	—	3	3	465	16 007	377	816	11 507	37 175	23 245	60 976	841
332111	Iron and steel forging .....	—	2	2	e	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	—	13	3	403	13 490	276	509	7 216	38 346	41 088	79 825	D
336	Transportation equipment manufacturing .....	—	9	4	1 904	59 943	1 372	2 572	38 080	237 519	180 250	415 692	18 322
3363	Motor vehicle parts manufacturing .....	—	7	3	g	D	D	D	D	D	D	D	D
33633	Motor vehicle steering and suspension component (except spring) manufacturing .....	—	2	2	g	D	D	D	D	D	D	D	D
336330	Motor vehicle steering and suspension component (except spring) manufacturing .....	—	2	2	g	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	1	12	4	266	7 956	206	389	4 960	50 803	36 484	87 365	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA</b>												
31-33	Manufacturing .....	1	'4 826	'1 329	'164 337	'7 234 668	100 422	196 717	'3 524 327	'20 755 786	'17 295 811	'38 222 265	D
311	Food manufacturing .....	2	423	124	j	D	D	D	D	D	D	D	105 862
3111	Animal food manufacturing .....	3	10	4	e	D	D	D	D	D	D	D	D
31111	Animal food manufacturing .....	3	10	4	e	D	D	D	D	D	D	D	D
3112	Grain and oilseed milling .....	1	9	6	e	D	D	D	D	D	D	D	D
31122	Starch and vegetable fats and oils manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
311225	Fats and oils refining and blending .....	—	2	2	e	D	D	D	D	D	D	D	D
3113	Sugar and confectionery product manufacturing .....	9	25	6	f	D	D	D	D	D	D	D	D
31131	Sugar manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
311312	Cane sugar refining .....	9	1	1	e	D	D	D	D	D	D	D	D
3114	Fruit and vegetable preserving and specialty food manufacturing .....	—	14	4	f	D	D	D	D	D	D	D	D
31142	Fruit and vegetable canning, pickling, and drying .....	—	8	2	e	D	D	D	D	D	D	D	D
311421	Fruit and vegetable canning .....	—	5	1	e	D	D	D	D	D	D	D	D
3115	Dairy product manufacturing .....	—	18	12	g	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) manufacturing .....	—	9	8	g	D	D	D	D	D	D	D	D
311511	Fluid milk manufacturing .....	—	6	6	g	D	D	D	D	D	D	D	D
311514	Dry, condensed, and evaporated dairy product manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
31152	Ice cream and frozen dessert manufacturing .....	4	9	4	e	D	D	D	D	D	D	D	D
311520	Ice cream and frozen dessert manufacturing .....	4	9	4	e	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	1	30	13	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	1	30	13	g	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses .....	3	13	6	f	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	2	246	55	i	D	D	D	D	D	D	D	D
31181	Bread and bakery product manufacturing .....	3	233	52	h	D	D	D	D	D	D	D	D
311811	Retail bakeries .....	5	164	25	g	D	D	D	D	D	D	D	D
311812	Commercial bakeries .....	3	66	25	h	D	D	D	D	D	D	D	D
31182	Cookie, cracker, and pasta manufacturing .....	—	8	2	e	D	D	D	D	D	D	D	D
3119	Other food manufacturing .....	1	66	23	h	D	D	D	D	D	D	D	D
31191	Snack food manufacturing .....	—	6	4	f	D	D	D	D	D	D	D	D
311919	Other snack food manufacturing .....	1	5	3	f	D	D	D	D	D	D	D	D
31194	Seasoning and dressing manufacturing .....	1	15	10	g	D	D	D	D	D	D	D	D
311942	Spice and extract manufacturing .....	1	10	8	f	D	D	D	D	D	D	D	D
31199	All other food manufacturing .....	—	34	6	g	D	D	D	D	D	D	D	D
311999	All other miscellaneous food manufacturing .....	—	28	5	f	D	D	D	D	D	D	D	D
312	Beverage and tobacco product manufacturing .....	—	39	18	g	D	D	D	D	D	D	D	D
3121	Beverage manufacturing .....	—	39	18	g	D	D	D	D	D	D	D	D
31211	Soft drink and ice manufacturing .....	—	18	14	g	D	D	D	D	D	D	D	D
312111	Soft drink manufacturing .....	—	13	12	g	D	D	D	D	D	D	D	D
31214	Distilleries .....	—	5	4	e	D	D	D	D	D	D	D	D
312140	Distilleries .....	—	5	4	e	D	D	D	D	D	D	D	D
313	Textile mills .....	7	33	5	f	D	D	D	D	D	D	D	D
3132	Fabric mills .....	7	16	3	e	D	D	D	D	D	D	D	D
31322	Narrow fabric mills and schiffli machine embroidery .....	4	4	1	e	D	D	D	D	D	D	D	D
3133	Textile and fabric finishing and fabric coating mills .....	8	13	2	e	D	D	D	D	D	D	D	D
31331	Textile and fabric finishing mills .....	8	12	2	e	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills .....	8	12	2	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
314	Textile product mills .....	8	143	16	g	D	D	D	D	D	D	D	D
3141	Textile furnishings mills .....	8	72	9	f	D	D	D	D	D	D	D	D
31411	Carpet and rug mills .....	9	5	1	e	D	D	D	D	D	D	D	D
314110	Carpet and rug mills .....	9	5	1	e	D	D	D	D	D	D	D	D
31412	Curtain and linen mills .....	3	67	8	f	D	D	D	D	D	D	D	D
314121	Curtain and drapery mills ....	4	60	7	e	D	D	D	D	D	D	D	D
3149	Other textile product mills .....	6	71	7	f	D	D	D	D	D	D	D	D
31491	Textile bag and canvas mills ...	6	38	5	426	11 843	306	622	7 133	30 062	20 690	50 689	D
314912	Canvas and related product mills .....	6	35	4	e	D	D	D	D	D	D	D	D
315	Apparel manufacturing .....	15	115	20	g	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing .....	4	80	18	g	D	D	D	D	D	D	D	D
31521	Cut and sew apparel contractors .....	7	42	5	e	D	D	D	D	D	D	D	D
31522	Men's and boys' cut and sew apparel manufacturing .....	4	12	6	f	D	D	D	D	D	D	D	D
315222	Men's and boys' cut and sew suit, coat, and overcoat manufacturing .....	8	8	4	f	D	D	D	D	D	D	D	D
315224	Men's and boys' cut and sew trouser, slack, and jean manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
31523	Women's and girls' cut and sew apparel manufacturing .....	4	21	7	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	1	159	57	i	D	D	D	D	D	D	D	D
3211	Sawmills and wood preservation .	1	30	7	f	D	D	D	D	D	D	D	D
32111	Sawmills and wood preservation .....	1	30	7	f	D	D	D	D	D	D	D	D
321113	Sawmills .....	1	24	4	e	D	D	D	D	D	D	D	D
321114	Wood preservation .....	—	6	3	e	D	D	D	D	D	D	D	D
3212	Veneer, plywood, and engineered wood product manufacturing....	1	19	13	f	D	D	D	D	D	D	D	D
32121	Veneer, plywood, and engineered wood product manufacturing .....	1	19	13	f	D	D	D	D	D	D	D	D
321214	Truss manufacturing.....	—	15	12	f	D	D	D	D	D	D	D	D
3219	Other wood product manufacturing .....	1	110	37	h	D	D	D	D	D	D	D	D
32191	Millwork .....	2	60	20	g	D	D	D	D	D	D	D	D
321911	Wood window and door manufacturing .....	1	16	7	f	D	D	D	D	D	D	D	D
321912	Cut stock, resawing lumber, and planing.....	2	12	4	e	D	D	D	D	D	D	D	D
321918	Other millwork (including flooring).....	4	32	9	f	D	D	D	D	D	D	D	D
32192	Wood container and pallet manufacturing .....	3	20	7	e	D	D	D	D	D	D	D	D
321920	Wood container and pallet manufacturing .....	3	20	7	e	D	D	D	D	D	D	D	D
32199	All other wood product manufacturing .....	—	30	10	g	D	D	D	D	D	D	D	D
321992	Prefabricated wood building manufacturing .....	—	9	4	g	D	D	D	D	D	D	D	D
321999	All other miscellaneous wood product manufacturing .....	4	21	6	f	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	1	48	29	h	D	D	D	D	D	D	D	D
3221	Pulp, paper, and paperboard mills .....	2	4	4	e	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing .....	1	44	25	h	D	D	D	D	D	D	D	D
32221	Paperboard container manufacturing .....	—	25	14	h	D	D	D	D	D	D	D	D
322211	Corrugated and solid fiber box manufacturing .....	1	20	12	g	D	D	D	D	D	D	D	D
322215	Nonfolding sanitary food container manufacturing ...	—	1	1	g	D	D	D	D	D	D	D	D
32223	Stationery product manufacturing .....	—	9	5	f	D	D	D	D	D	D	D	D
322232	Envelope manufacturing .....	—	4	3	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
323	Printing and related support activities .....	1	1 024	238	23 842	898 370	17 353	32 622	572 954	1 826 931	1 061 494	2 878 344	D
3231	Printing and related support activities .....	1	1 024	238	23 842	898 370	17 353	32 622	572 954	1 826 931	1 061 494	2 878 344	D
32311	Printing .....	1	913	210	j	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing .....	1	461	146	j	D	D	D	D	D	D	D	D
323112	Commercial flexographic printing .....	—	9	5	e	D	D	D	D	D	D	D	D
323113	Commercial screen printing ..	1	66	15	g	D	D	D	D	D	D	D	D
323114	Quick printing .....	3	216	12	g	D	D	D	D	D	D	D	D
323115	Digital printing .....	1	42	5	f	D	D	D	D	D	D	D	D
323116	Manifold business forms printing .....	3	14	7	f	D	D	D	D	D	D	D	D
323117	Books printing .....	—	26	12	2 060	73 775	1 625	3 340	52 626	151 465	82 027	231 904	17 403
323119	Other commercial printing ...	5	62	6	388	12 192	267	454	7 265	25 088	14 184	40 001	D
32312	Support activities for printing...	3	111	28	g	D	D	D	D	D	D	D	D
323121	Tradebinding and related work .....	3	45	16	g	D	D	D	D	D	D	D	D
323122	Prepress services .....	2	66	12	f	D	D	D	D	D	D	D	D
324	Petroleum and coal products manufacturing .....	—	39	9	f	D	D	D	D	D	D	D	D
3241	Petroleum and coal products manufacturing .....	—	39	9	f	D	D	D	D	D	D	D	D
32412	Asphalt paving, roofing, and saturated materials manufacturing .....	1	35	8	f	D	D	D	D	D	D	D	D
324121	Asphalt paving mixture and block manufacturing .....	3	29	4	e	D	D	D	D	D	D	D	D
324122	Asphalt shingle and coating materials manufacturing ...	—	6	4	f	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	—	197	72	j	D	D	D	D	D	D	D	D
3251	Basic chemical manufacturing ...	—	31	14	2 455	153 249	1 421	2 911	79 551	358 447	467 535	823 045	D
32513	Synthetic dye and pigment manufacturing .....	—	4	4	f	D	D	D	D	D	D	D	D
325131	Inorganic dye and pigment manufacturing .....	—	4	4	f	D	D	D	D	D	D	D	D
32518	Other basic inorganic chemical manufacturing .....	—	13	6	g	D	D	D	D	D	D	D	D
325188	All other basic inorganic chemical manufacturing ....	—	13	6	g	D	D	D	D	D	D	D	D
32519	Other basic organic chemical manufacturing .....	—	7	3	e	D	D	D	D	D	D	D	D
325199	All other basic organic chemical manufacturing ....	—	7	3	e	D	D	D	D	D	D	D	D
3254	Pharmaceutical and medicine manufacturing .....	—	50	20	h	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing .....	—	50	20	h	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation manufacturing .....	1	21	6	g	D	D	D	D	D	D	D	D
325413	In-vitro diagnostic substance manufacturing .....	1	12	8	g	D	D	D	D	D	D	D	D
325414	Biological product (except diagnostic) manufacturing ..	—	13	5	g	D	D	D	D	D	D	D	D
3255	Paint, coating, and adhesive manufacturing .....	—	26	13	g	D	D	D	D	D	D	D	D
32551	Paint and coating manufacturing .....	—	18	10	g	D	D	D	D	D	D	D	D
325510	Paint and coating manufacturing .....	—	18	10	g	D	D	D	D	D	D	D	D
32552	Adhesive manufacturing .....	—	8	3	e	D	D	D	D	D	D	D	D
325520	Adhesive manufacturing ....	—	8	3	e	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, and toilet preparation manufacturing .	—	24	7	g	D	D	D	D	D	D	D	D
32561	Soap and cleaning compound manufacturing .....	—	16	5	f	D	D	D	D	D	D	D	D
32562	Toilet preparation manufacturing .....	—	8	2	g	D	D	D	D	D	D	D	D
325620	Toilet preparation manufacturing .....	—	8	2	g	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing .....	3	50	17	f	D	D	D	D	D	D	D	D
32591	Printing ink manufacturing ....	2	10	6	e	D	D	D	D	D	D	D	D
325910	Printing ink manufacturing ...	2	10	6	e	D	D	D	D	D	D	D	D
32599	All other chemical product and preparation manufacturing ...	4	39	10	f	D	D	D	D	D	D	D	D
325998	All other miscellaneous chemical product and preparation manufacturing .	—	19	5	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		E <sup>1</sup>	Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>												
326	Plastics and rubber products manufacturing .....	1	134	74	i	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	1	113	63	i	D	D	D	D	D	D	D
32611	Plastics packaging materials and unlaminated film and sheet manufacturing .....	—	10	5	f	D	D	D	D	D	D	D
326111	Plastics bag manufacturing ..	1	4	2	e	D	D	D	D	D	D	D
32614	Polystyrene foam product manufacturing .....	—	6	4	e	D	D	D	D	D	D	D
326140	Polystyrene foam product manufacturing .....	—	6	4	e	D	D	D	D	D	D	D
32615	Urethane and other foam product (except polystyrene) manufacturing .....	—	4	3	e	D	D	D	D	D	D	D
326150	Urethane and other foam product (except polystyrene) manufacturing .....	—	4	3	e	D	D	D	D	D	D	D
32616	Plastics bottle manufacturing ..	—	7	6	g	D	D	D	D	D	D	D
326160	Plastics bottle manufacturing .....	—	7	6	g	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	1	78	43	i	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	1	73	41	i	D	D	D	D	D	D	D
3262	Rubber product manufacturing ...	3	21	11	f	D	D	D	D	D	D	D
32629	Other rubber product manufacturing .....	4	11	6	e	D	D	D	D	D	D	D
326299	All other rubber product manufacturing .....	1	9	5	e	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing .....	2	'252	'93	i	D	D	D	D	D	D	D
3271	Clay product and refractory manufacturing .....	2	26	4	e	D	D	D	D	D	D	D
32711	Pottery, ceramics, and plumbing fixture manufacturing .....	—	19	2	e	D	D	D	D	D	D	D
3272	Glass and glass product manufacturing .....	2	29	4	e	D	D	D	D	D	D	D
32721	Glass and glass product manufacturing .....	2	29	4	e	D	D	D	D	D	D	D
327213	Glass container manufacturing .....	—	1	1	e	D	D	D	D	D	D	D
3273	Cement and concrete product manufacturing .....	2	'158	'73	i	D	D	D	D	D	D	D
32731	Cement manufacturing .....	—	7	4	e	D	D	D	D	D	D	D
327310	Cement manufacturing .....	—	7	4	e	D	D	D	D	D	D	D
32732	Ready-mix concrete manufacturing .....	1	90	33	g	D	D	D	D	D	D	D
327320	Ready-mix concrete manufacturing .....	1	90	33	g	D	D	D	D	D	D	D
32733	Concrete pipe, brick, and block manufacturing .....	3	22	15	f	D	D	D	D	D	D	D
327331	Concrete block and brick manufacturing .....	5	15	8	e	D	D	D	D	D	D	D
327332	Concrete pipe manufacturing .....	—	7	7	e	D	D	D	D	D	D	D
32739	Other concrete product manufacturing .....	4	'39	'21	g	D	D	D	D	D	D	D
327390	Other concrete product manufacturing .....	4	'39	'21	g	D	D	D	D	D	D	D
3274	Lime and gypsum product manufacturing .....	—	7	2	e	D	D	D	D	D	D	D
32742	Gypsum product manufacturing .....	—	6	2	e	D	D	D	D	D	D	D
327420	Gypsum product manufacturing .....	—	6	2	e	D	D	D	D	D	D	D
3279	Other nonmetallic mineral product manufacturing .....	1	32	10	f	D	D	D	D	D	D	D
32799	All other nonmetallic mineral product manufacturing .....	1	31	9	f	D	D	D	D	D	D	D
327991	Cut stone and stone product manufacturing .....	3	23	6	e	D	D	D	D	D	D	D
331	Primary metal manufacturing .....	—	31	12	h	D	D	D	D	D	D	D
3311	Iron and steel mills and ferroalloy manufacturing .....	—	4	2	h	D	D	D	D	D	D	D
33111	Iron and steel mills and ferroalloy manufacturing .....	—	4	2	h	D	D	D	D	D	D	D
331111	Iron and steel mills .....	—	4	2	h	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
331	Primary metal manufacturing—Con.												
3312	Steel product manufacturing from purchased steel .....	—	9	4	e	D	D	D	D	D	D	D	D
33122	Rolling and drawing of purchased steel .....	—	9	4	e	D	D	D	D	D	D	D	D
331222	Steel wire drawing .....	—	9	4	e	D	D	D	D	D	D	D	D
3313	Alumina and aluminum production and processing .....	—	6	3	f	D	D	D	D	D	D	D	D
33131	Alumina and aluminum production and processing ...	—	6	3	f	D	D	D	D	D	D	D	D
331312	Primary aluminum production .....	—	1	1	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	2	'556	'163	'13 158	'517 586	'9 525	'18 914	'324 290	'1 342 511	'1 105 712	'2 474 895	D
3321	Forging and stamping .....	1	16	10	f	D	D	D	D	D	D	D	D
33211	Forging and stamping .....	1	16	10	f	D	D	D	D	D	D	D	D
332116	Metal stamping .....	—	6	4	326	15 394	231	454	8 476	21 582	22 270	43 820	1 065
3323	Architectural and structural metals manufacturing .....	2	'185	'52	'4 710	'174 910	'3 268	'6 504	'103 374	'399 504	'376 050	'781 511	D
33231	Plate work and fabricated structural product manufacturing .....	2	54	21	g	D	D	D	D	D	D	D	D
332312	Fabricated structural metal manufacturing .....	2	39	16	g	D	D	D	D	D	D	D	D
332313	Plate work manufacturing ...	1	10	2	e	D	D	D	D	D	D	D	D
33232	Ornamental and architectural metal products manufacturing .....	1	'131	'31	h	D	D	D	D	D	D	D	D
332321	Metal window and door manufacturing .....	1	18	3	f	D	D	D	D	D	D	D	D
332322	Sheet metal work manufacturing .....	2	'64	'17	g	D	D	D	D	D	D	D	D
332323	Ornamental and architectural metal work manufacturing ..	1	49	11	990	43 990	621	1 277	22 470	112 888	55 946	170 553	3 308
3324	Boiler, tank, and shipping container manufacturing .....	1	19	10	f	D	D	D	D	D	D	D	D
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	1	11	7	f	D	D	D	D	D	D	D	D
332431	Metal can manufacturing ....	1	6	6	f	D	D	D	D	D	D	D	D
3326	Spring and wire product manufacturing .....	4	22	11	f	D	D	D	D	D	D	D	D
33261	Spring and wire product manufacturing .....	4	22	11	f	D	D	D	D	D	D	D	D
332618	Other fabricated wire product manufacturing .....	3	19	9	f	D	D	D	D	D	D	D	D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	3	206	49	h	D	D	D	D	D	D	D	D
33271	Machine shops .....	4	184	43	h	D	D	D	D	D	D	D	D
332710	Machine shops .....	4	184	43	h	D	D	D	D	D	D	D	D
33272	Turned product and screw, nut, and bolt manufacturing .....	—	22	6	537	22 014	399	826	15 799	45 467	13 531	58 154	D
332721	Precision turned product manufacturing .....	—	19	5	e	D	D	D	D	D	D	D	D
3328	Coating, engraving, heat treating, and allied activities .....	2	53	11	741	25 145	580	1 088	16 847	49 869	46 110	95 491	D
33281	Coating, engraving, heat treating, and allied activities ..	2	53	11	741	25 145	580	1 088	16 847	49 869	46 110	95 491	D
332812	Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers ..	—	26	5	e	D	D	D	D	D	D	D	D
332813	Electroplating, plating, polishing, anodizing, and coloring .....	5	24	6	e	D	D	D	D	D	D	D	D
3329	Other fabricated metal product manufacturing .....	1	45	19	g	D	D	D	D	D	D	D	D
33291	Metal valve manufacturing ....	—	6	3	f	D	D	D	D	D	D	D	D
332912	Fluid power valve and hose fitting manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product manufacturing .....	2	39	16	g	D	D	D	D	D	D	D	D
332994	Small arms manufacturing ...	—	4	2	e	D	D	D	D	D	D	D	D
332999	All other miscellaneous fabricated metal product manufacturing .....	3	27	13	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
333	Machinery manufacturing .....	3	'189	'57	i	D	D	D	D	D	D	D	D
3332	Industrial machinery manufacturing .....	4	33	9	g	D	D	D	D	D	D	D	D
33329	Other industrial machinery manufacturing .....	4	31	9	g	D	D	D	D	D	D	D	D
333291	Paper industry machinery manufacturing .....	6	5	2	e	D	D	D	D	D	D	D	D
333298	All other industrial machinery manufacturing .....	4	12	6	e	D	D	D	D	D	D	D	D
3333	Commercial and service industry machinery manufacturing .....	5	40	8	g	D	D	D	D	D	D	D	D
33331	Commercial and service industry machinery manufacturing .....	5	40	8	g	D	D	D	D	D	D	D	D
333311	Automatic vending machine manufacturing .....	9	4	2	f	D	D	D	D	D	D	D	D
333319	Other commercial and service industry machinery manufacturing .....	-	17	5	f	D	D	D	D	D	D	D	D
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	1	22	11	g	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	1	22	11	g	D	D	D	D	D	D	D	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	-	14	7	g	D	D	D	D	D	D	D	D
3335	Metalworking machinery manufacturing .....	2	33	6	e	D	D	D	D	D	D	D	D
33351	Metalworking machinery manufacturing .....	2	33	6	e	D	D	D	D	D	D	D	D
3336	Engine, turbine, and power transmission equipment manufacturing .....	-	5	1	e	D	D	D	D	D	D	D	D
33361	Engine, turbine, and power transmission equipment manufacturing .....	-	5	1	e	D	D	D	D	D	D	D	D
333613	Mechanical power transmission equipment manufacturing .....	-	2	1	e	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing .....	4	'50	'20	h	D	D	D	D	D	D	D	D
33392	Material handling equipment manufacturing .....	-	'14	'6	e	D	D	D	D	D	D	D	D
33399	All other general purpose machinery manufacturing ....	7	30	13	g	D	D	D	D	D	D	D	D
333993	Packaging machinery manufacturing .....	6	6	4	e	D	D	D	D	D	D	D	D
333999	All other miscellaneous general purpose machinery manufacturing .....	7	17	7	g	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	1	354	142	k	D	D	D	D	D	D	D	D
3341	Computer and peripheral equipment manufacturing .....	5	40	13	f	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing ....	5	40	13	f	D	D	D	D	D	D	D	D
334111	Electronic computer manufacturing .....	5	17	6	e	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment manufacturing ..	5	20	7	f	D	D	D	D	D	D	D	D
3342	Communications equipment manufacturing .....	-	92	47	i	D	D	D	D	D	D	D	D
33421	Telephone apparatus manufacturing .....	2	22	9	g	D	D	D	D	D	D	D	D
334210	Telephone apparatus manufacturing .....	2	22	9	g	D	D	D	D	D	D	D	D
33422	Radio and television broadcasting and wireless communications equipment manufacturing .....	-	49	32	i	D	D	D	D	D	D	D	D
334220	Radio and television broadcasting and wireless communications equipment manufacturing .....	-	49	32	i	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
334	Computer and electronic product manufacturing—Con.												
3342	Communications equipment manufacturing—Con.												
33429	Other communications equipment manufacturing . . . .	1	21	6	f	D	D	D	D	D	D	D	D
334290	Other communications equipment manufacturing . .	1	21	6	f	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing . . . . .	4	77	32		4 106	193 808	2 394	4 825	101 920	358 820	193 011	591 566
33441	Semiconductor and other electronic component manufacturing . . . . .	4	77	32		4 106	193 808	2 394	4 825	101 920	358 820	193 011	591 566
334412	Bare printed circuit board manufacturing . . . . .	—	13	7	f	D	D	D	D	D	D	D	D
334413	Semiconductor and related device manufacturing . . . . .	6	18	9	g	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) manufacturing . . . . .	1	15	6	f	D	D	D	D	D	D	D	D
334419	Other electronic component manufacturing . . . . .	5	24	10	g	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing . . . . .	—	107	46	j	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing . . .	—	107	46	j	D	D	D	D	D	D	D	D
334510	Electromedical and electrotherapeutic apparatus manufacturing . . .	—	9	5	e	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing . . . . .	—	23	14	j	D	D	D	D	D	D	D	D
334513	Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables . . . . .	4	15	5	e	D	D	D	D	D	D	D	D
334514	Totalizing fluid meter and counting device manufacturing . . . . .	—	6	2	e	D	D	D	D	D	D	D	D
334515	Instrument manufacturing for measuring and testing electricity and electrical signals . . . . .	—	11	7	g	D	D	D	D	D	D	D	D
334516	Analytical laboratory instrument manufacturing . .	—	17	6	e	D	D	D	D	D	D	D	D
334519	Other measuring and controlling device manufacturing . . . . .	1	21	6	e	D	D	D	D	D	D	D	D
3346	Manufacturing and reproducing magnetic and optical media . . . . .	1	28	3	e	D	D	D	D	D	D	D	D
33461	Manufacturing and reproducing magnetic and optical media . .	1	28	3	e	D	D	D	D	D	D	D	D
334612	Prerecorded compact disc (except software), tape, and record reproducing . . . . .	—	17	3	e	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing . . . . .	1	64	17	g	D	D	D	D	D	D	D	D
3351	Electric lighting equipment manufacturing . . . . .	—	15	3	f	D	D	D	D	D	D	D	D
33511	Electric lamp bulb and part manufacturing . . . . .	—	2	1	e	D	D	D	D	D	D	D	D
335110	Electric lamp bulb and part manufacturing . . . . .	—	2	1	e	D	D	D	D	D	D	D	D
33512	Lighting fixture manufacturing . .	—	13	2	e	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing . . . . .	—	18	5	g	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing . . . . .	—	18	5	g	D	D	D	D	D	D	D	D
335311	Power, distribution, and specialty transformer manufacturing . . . . .	—	1	1	e	D	D	D	D	D	D	D	D
335313	Switchgear and switchboard apparatus manufacturing . . .	—	6	2	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
335	Electrical equipment, appliance, and component manufacturing—Con.												
3359	Other electrical equipment and component manufacturing.....	5	29	9	f	D	D	D	D	D	D	D	D
33592	Communication and energy wire and cable manufacturing .	5	7	4	e	D	D	D	D	D	D	D	D
335921	Fiber optic cable manufacturing .....	4	6	3	e	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	—	99	35	i	D	D	D	D	D	D	D	D
3361	Motor vehicle manufacturing .....	—	5	1	g	D	D	D	D	D	D	D	D
33611	Automobile and light duty motor vehicle manufacturing .....	—	5	1	g	D	D	D	D	D	D	D	D
336112	Light truck and utility vehicle manufacturing .....	—	2	1	g	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	—	33	18	h	D	D	D	D	D	D	D	D
33632	Motor vehicle electrical and electronic equipment manufacturing .....	3	3	3	e	D	D	D	D	D	D	D	D
336322	Other motor vehicle electrical and electronic equipment manufacturing .....	3	3	3	e	D	D	D	D	D	D	D	D
33634	Motor vehicle brake system manufacturing .....	—	3	3	f	D	D	D	D	D	D	D	D
336340	Motor vehicle brake system manufacturing .....	—	3	3	f	D	D	D	D	D	D	D	D
33635	Motor vehicle transmission and power train parts manufacturing .....	—	5	3	f	D	D	D	D	D	D	D	D
336350	Motor vehicle transmission and power train parts manufacturing .....	—	5	3	f	D	D	D	D	D	D	D	D
33636	Motor vehicle seating and interior trim manufacturing . . .	—	3	3	f	D	D	D	D	D	D	D	D
336360	Motor vehicle seating and interior trim manufacturing . .	—	3	3	f	D	D	D	D	D	D	D	D
33637	Motor vehicle metal stamping . .	—	1	1	e	D	D	D	D	D	D	D	D
336370	Motor vehicle metal stamping .....	—	1	1	e	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts manufacturing .....	—	7	4	e	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts manufacturing .....	—	6	4	e	D	D	D	D	D	D	D	D
3364	Aerospace product and parts manufacturing .....	—	13	8	g	D	D	D	D	D	D	D	D
33641	Aerospace product and parts manufacturing .....	—	13	8	g	D	D	D	D	D	D	D	D
336412	Aircraft engine and engine parts manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
336413	Other aircraft parts and auxiliary equipment manufacturing .....	—	6	3	e	D	D	D	D	D	D	D	D
336414	Guided missile and space vehicle manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
336415	Guided missile and space vehicle propulsion unit and propulsion unit parts manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
3366	Ship and boat building .....	2	34	4	f	D	D	D	D	D	D	D	D
33661	Ship and boat building .....	2	34	4	f	D	D	D	D	D	D	D	D
336611	Ship building and repairing . .	2	19	3	e	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	2	364	61	i	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	2	260	27	h	D	D	D	D	D	D	D	D
33711	Wood kitchen cabinet and countertop manufacturing . . .	1	158	14	g	D	D	D	D	D	D	D	D
337110	Wood kitchen cabinet and countertop manufacturing . .	1	158	14	g	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	2	102	13	g	D	D	D	D	D	D	D	D
337121	Upholstered household furniture manufacturing . . . .	4	21	3	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	1	66	7	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
337	Furniture and related product manufacturing—Con.												
3372	Office furniture (including fixtures) manufacturing .....	3	87	28	2 534	84 554	1 711	3 438	50 754	151 533	94 248	247 212	D
33721	Office furniture (including fixtures) manufacturing .....	3	87	28	2 534	84 554	1 711	3 438	50 754	151 533	94 248	247 212	D
337211	Wood office furniture manufacturing .....	3	18	4	e	D	D	D	D	D	D	D	D
337212	Custom architectural woodwork and millwork manufacturing .....	1	41	14	g	D	D	D	D	D	D	D	D
337215	Showcase, partition, shelving, and locker manufacturing .....	4	24	7	938	32 683	693	1 359	20 819	57 555	40 394	98 049	D
3379	Other furniture related product manufacturing .....	—	17	6	f	D	D	D	D	D	D	D	D
33791	Mattress manufacturing .....	—	7	4	f	D	D	D	D	D	D	D	D
337910	Mattress manufacturing .....	—	7	4	f	D	D	D	D	D	D	D	D
33792	Blind and shade manufacturing .....	—	10	2	e	D	D	D	D	D	D	D	D
337920	Blind and shade manufacturing .....	—	10	2	e	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	3	554	85	i	D	D	D	D	D	D	D	D
3391	Medical equipment and supplies manufacturing .....	3	258	29	g	D	D	D	D	D	D	D	D
33911	Medical equipment and supplies manufacturing .....	3	258	29	g	D	D	D	D	D	D	D	D
339112	Surgical and medical instrument manufacturing ..	3	21	6	e	D	D	D	D	D	D	D	D
339113	Surgical appliance and supplies manufacturing ....	3	41	9	f	D	D	D	D	D	D	D	D
339116	Dental laboratories .....	4	158	7	f	D	D	D	D	D	D	D	D
3399	Other miscellaneous manufacturing .....	2	296	56	h	D	D	D	D	D	D	D	D
33995	Sign manufacturing .....	3	149	30	g	D	D	D	D	D	D	D	D
339950	Sign manufacturing .....	3	149	30	g	D	D	D	D	D	D	D	D
33999	All other miscellaneous manufacturing .....	1	74	18	g	D	D	D	D	D	D	D	D
339992	Musical instrument manufacturing .....	—	11	3	e	D	D	D	D	D	D	D	D
339999	All other miscellaneous manufacturing .....	1	57	13	f	D	D	D	D	D	D	D	D
<b>Baltimore-Towson, MD Metropolitan Statistical Area</b>													
31-33	Manufacturing .....	1	2 103	656	82 438	3 692 128	51 841	100 867	1 884 007	11 095 515	9 542 974	20 650 731	1 091 046
311	Food manufacturing .....	2	192	68	8 008	284 267	5 159	10 155	158 863	1 396 914	1 587 943	3 002 098	53 204
3112	Grain and oilseed milling .....	1	6	5	e	D	D	D	D	D	D	D	D
31122	Starch and vegetable fats and oils manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
311225	Fats and oils refining and blending .....	—	2	2	e	D	D	D	D	D	D	D	D
3113	Sugar and confectionery product manufacturing .....	9	19	6	f	D	D	D	D	D	D	D	D
31131	Sugar manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
311312	Cane sugar refining .....	9	1	1	e	D	D	D	D	D	D	D	D
3115	Dairy product manufacturing .....	2	9	5	878	33 702	564	1 194	21 015	167 640	242 284	417 609	9 625
31151	Dairy product (except frozen) manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
311511	Fluid milk manufacturing ....	—	2	2	e	D	D	D	D	D	D	D	D
31152	Ice cream and frozen dessert manufacturing .....	4	7	3	e	D	D	D	D	D	D	D	D
311520	Ice cream and frozen dessert manufacturing .....	4	7	3	e	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	1	16	7	498	15 386	382	847	10 024	97 371	67 298	164 793	2 222
31161	Animal slaughtering and processing .....	1	16	7	498	15 386	382	847	10 024	97 371	67 298	164 793	2 222
3118	Bakeries and tortilla manufacturing .....	6	93	20	g	D	D	D	D	D	D	D	D
31181	Bread and bakery product manufacturing .....	6	87	20	g	D	D	D	D	D	D	D	7 842
311811	Retail bakeries .....	6	55	5	e	D	D	D	D	D	D	D	D
311812	Commercial bakeries .....	7	30	13	1 399	45 982	709	1 431	19 766	111 759	59 328	171 596	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
<b>Baltimore-Towson, MD Metropolitan Statistical Area—Con.</b>													
311	Food manufacturing—Con.												
3119	Other food manufacturing .....	—	35	20	2 919	118 255	2 029	3 926	67 203	855 877	650 557	1 514 361	20 214
31191	Snack food manufacturing .....	—	4	3	f	D	D	D	D	D	D	D	D
311919	Other snack food manufacturing .....	—	3	2	f	D	D	D	D	D	D	D	D
31194	Seasoning and dressing manufacturing .....	—	14	10	g	D	D	D	D	D	D	D	D
311942	Spice and extract manufacturing .....	1	9	8	891	42 141	567	1 179	22 399	273 095	297 977	578 048	8 374
31199	All other food manufacturing .....	—	12	5	f	D	D	D	D	D	D	D	D
311999	All other miscellaneous food manufacturing .....	—	8	4	f	D	D	D	D	D	D	D	5 725
312	Beverage and tobacco product manufacturing .....	—	16	10	1 178	46 873	647	1 204	22 531	276 964	335 617	618 597	D
3121	Beverage manufacturing .....	—	16	10	1 178	46 873	647	1 204	22 531	276 964	335 617	618 597	D
31211	Soft drink and ice manufacturing .....	—	9	7	815	30 355	380	725	12 176	119 991	278 812	398 820	D
312111	Soft drink manufacturing .....	—	7	6	f	D	D	D	D	D	D	D	D
31214	Distilleries .....	—	3	3	e	D	D	D	D	D	D	D	D
312140	Distilleries .....	—	3	3	e	D	D	D	D	D	D	D	D
313	Textile mills .....	8	17	4	f	D	D	D	D	D	D	D	D
3132	Fabric mills .....	6	9	2	e	D	D	D	D	D	D	D	D
31322	Narrow fabric mills and schiffli machine embroidery .....	4	3	1	e	D	D	D	D	D	D	D	D
3133	Textile and fabric finishing and fabric coating mills .....	8	8	2	e	D	D	D	D	D	D	D	D
31331	Textile and fabric finishing mills .....	8	7	2	e	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills .....	8	7	2	e	D	D	D	D	D	D	D	D
314	Textile product mills .....	8	73	8	1 002	26 200	800	1 574	18 494	141 845	305 864	446 319	D
3141	Textile furnishings mills .....	9	26	3	f	D	D	D	D	D	D	D	D
31411	Carpet and rug mills .....	9	3	1	e	D	D	D	D	D	D	D	D
314110	Carpet and rug mills .....	9	3	1	e	D	D	D	D	D	D	D	D
3149	Other textile product mills .....	6	47	5	e	D	D	D	D	D	D	D	D
31491	Textile bag and canvas mills .....	7	30	4	352	9 704	248	487	5 919	26 751	19 558	46 264	D
314912	Canvas and related product mills .....	6	28	3	e	D	D	D	D	D	D	D	D
315	Apparel manufacturing .....	3	48	14	g	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing .....	3	35	12	g	D	D	D	D	D	D	D	D
31522	Men's and boys' cut and sew apparel manufacturing .....	3	7	5	f	D	D	D	D	D	D	D	D
315222	Men's and boys' cut and sew suit, coat, and overcoat manufacturing .....	8	4	3	e	D	D	D	D	D	D	D	D
315224	Men's and boys' cut and sew trouser, slack, and jean manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
31523	Women's and girls' cut and sew apparel manufacturing .....	1	9	4	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	2	60	19	1 701	49 305	1 374	2 675	34 028	102 859	107 837	210 365	D
3212	Veneer, plywood, and engineered wood product manufacturing .....	—	8	4	399	14 470	288	583	8 155	30 446	29 743	60 134	D
32121	Veneer, plywood, and engineered wood product manufacturing .....	—	8	4	399	14 470	288	583	8 155	30 446	29 743	60 134	D
321214	Truss manufacturing .....	—	7	4	e	D	D	D	D	D	D	D	D
3219	Other wood product manufacturing .....	3	45	15	1 259	33 557	1 048	2 023	24 824	70 474	72 251	142 307	D
32191	Millwork .....	2	19	9	815	22 043	682	1 313	16 440	45 840	50 626	96 647	D
321918	Other millwork (including flooring) .....	—	11	5	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

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<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
<b>Baltimore-Towson, MD Metropolitan Statistical Area—Con.</b>													
322	Paper manufacturing .....	-	31	21	3 000	111 799	2 515	5 218	82 064	262 449	335 716	588 890	9 835
3222	Converted paper product manufacturing .....	-	28	18	h	D	D	D	D	D	D	D	D
32221	Paperboard container manufacturing .....	-	19	12	2 404	87 926	2 071	4 336	67 545	206 263	273 264	470 240	D
322211	Corrugated and solid fiber box manufacturing .....	-	16	10	g	D	D	D	D	D	D	D	D
322215	Nonfolding sanitary food container manufacturing ...	-	1	1	g	D	D	D	D	D	D	D	D
32223	Stationery product manufacturing .....	1	3	3	e	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	2	350	98	7 859	274 519	5 865	10 788	177 623	610 594	335 971	939 789	35 548
3231	Printing and related support activities .....	2	350	98	7 859	274 519	5 865	10 788	177 623	610 594	335 971	939 789	35 548
32311	Printing .....	2	302	80	6 540	223 943	4 827	8 792	141 493	524 058	315 866	833 343	D
323110	Commercial lithographic printing .....	1	152	48	3 533	122 047	2 646	4 260	77 257	232 801	158 723	385 616	19 683
323112	Commercial flexographic printing .....	-	4	4	e	D	D	D	D	D	D	D	D
323113	Commercial screen printing ..	2	31	10	519	16 659	353	766	9 134	28 602	21 525	50 201	1 492
323114	Quick printing .....	3	62	2	335	10 033	225	410	6 466	25 458	8 492	33 957	D
323116	Manifold business forms printing .....	3	6	6	859	25 810	645	1 381	16 752	126 844	40 349	166 025	3 238
323117	Books printing .....	-	8	3	548	21 378	441	924	15 582	43 864	25 638	69 426	2 611
32312	Support activities for printing...	1	48	18	1 319	50 576	1 038	1 996	36 130	86 536	20 105	106 446	D
323121	Tradebinding and related work .....	1	20	11	f	D	D	D	D	D	D	D	2 882
323122	Prepress services .....	1	28	7	f	D	D	D	D	D	D	D	D
324	Petroleum and coal products manufacturing .....	1	21	6	e	D	D	D	D	D	D	D	D
3241	Petroleum and coal products manufacturing .....	1	21	6	e	D	D	D	D	D	D	D	D
32412	Asphalt paving, roofing, and saturated materials manufacturing .....	1	17	5	e	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	-	113	44	8 634	411 163	4 802	9 100	227 513	1 996 698	1 138 796	3 123 965	177 440
3251	Basic chemical manufacturing ...	-	26	12	2 299	144 841	1 326	2 709	75 454	326 640	437 604	763 407	D
32513	Synthetic dye and pigment manufacturing .....	-	3	3	f	D	D	D	D	D	D	D	D
325131	Inorganic dye and pigment manufacturing .....	-	3	3	f	D	D	D	D	D	D	D	D
32518	Other basic inorganic chemical manufacturing .....	-	13	6	g	D	D	D	D	D	D	D	D
325188	All other basic inorganic chemical manufacturing ....	-	13	6	g	D	D	D	D	D	D	D	D
32519	Other basic organic chemical manufacturing .....	-	6	3	e	D	D	D	D	D	D	D	D
325199	All other basic organic chemical manufacturing ....	-	6	3	e	D	D	D	D	D	D	D	D
3254	Pharmaceutical and medicine manufacturing .....	-	20	7	2 917	143 486	1 417	2 457	72 696	468 870	111 277	557 479	D
32541	Pharmaceutical and medicine manufacturing .....	-	20	7	2 917	143 486	1 417	2 457	72 696	468 870	111 277	557 479	D
325412	Pharmaceutical preparation manufacturing .....	-	11	5	g	D	D	D	D	D	D	D	D
325413	In-vitro diagnostic substance manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
3255	Paint, coating, and adhesive manufacturing .....	-	17	8	g	D	D	D	D	D	D	D	D
32551	Paint and coating manufacturing .....	-	11	6	653	24 948	450	778	14 511	269 497	202 039	470 544	D
325510	Paint and coating manufacturing .....	-	11	6	653	24 948	450	778	14 511	269 497	202 039	470 544	D
32552	Adhesive manufacturing .....	-	6	2	e	D	D	D	D	D	D	D	D
325520	Adhesive manufacturing ....	-	6	2	e	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, and toilet preparation manufacturing .	-	15	7	g	D	D	D	D	D	D	D	10 111
32561	Soap and cleaning compound manufacturing .....	-	10	5	e	D	D	D	D	D	D	D	D
32562	Toilet preparation manufacturing .....	-	5	2	g	D	D	D	D	D	D	D	D
325620	Toilet preparation manufacturing .....	-	5	2	g	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
<b>Baltimore-Towson, MD Metropolitan Statistical Area—Con.</b>													
325	Chemical manufacturing—Con.												
3259	Other chemical product and preparation manufacturing . . . . .	3	25	9	486	21 419	309	651	11 173	66 253	94 240	160 454	3 589
32599	All other chemical product and preparation manufacturing . . .	3	18	4	e	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing . . . . .	1	74	38	4 545	154 075	3 615	7 226	104 574	430 648	379 380	793 504	33 621
3261	Plastics product manufacturing . .	1	59	31	4 117	137 938	3 352	6 722	97 034	384 177	355 503	727 121	32 913
32611	Plastics packaging materials and unlaminated film and sheet manufacturing . . . . .	1	6	3	e	D	D	D	D	D	D	D	D
32615	Urethane and other foam product (except polystyrene) manufacturing . . . . .	—	4	3	e	D	D	D	D	D	D	D	D
326150	Urethane and other foam product (except polystyrene) manufacturing . . . . .	—	4	3	e	D	D	D	D	D	D	D	D
32616	Plastics bottle manufacturing . .	—	6	5	f	D	D	D	D	D	D	D	D
326160	Plastics bottle manufacturing . . . . .	—	6	5	f	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing . . . . .	3	38	18	2 486	81 020	1 948	3 839	51 867	185 393	121 547	302 125	19 656
326199	All other plastics product manufacturing . . . . .	3	37	18	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing . . .	1	15	7	428	16 137	263	504	7 540	46 471	23 877	66 383	708
32629	Other rubber product manufacturing . . . . .	1	10	5	310	13 506	176	365	5 892	25 380	13 748	40 057	D
326299	All other rubber product manufacturing . . . . .	1	9	5	e	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing . . . . .	1	92	33	3 196	125 697	2 173	4 338	80 264	377 646	307 087	676 886	D
3271	Clay product and refractory manufacturing . . . . .	1	13	2	e	D	D	D	D	D	D	D	D
3272	Glass and glass product manufacturing . . . . .	1	13	2	e	D	D	D	D	D	D	D	942
32721	Glass and glass product manufacturing . . . . .	1	13	2	e	D	D	D	D	D	D	D	942
327213	Glass container manufacturing . . . . .	—	1	1	e	D	D	D	D	D	D	D	D
3273	Cement and concrete product manufacturing . . . . .	2	49	23	1 901	74 039	1 172	2 412	43 519	190 028	152 895	339 591	D
32732	Ready-mix concrete manufacturing . . . . .	3	27	10	1 011	36 454	569	1 112	20 566	64 711	81 357	146 121	D
327320	Ready-mix concrete manufacturing . . . . .	3	27	10	1 011	36 454	569	1 112	20 566	64 711	81 357	146 121	D
32733	Concrete pipe, brick, and block manufacturing . . . . .	1	10	7	e	D	D	D	D	D	D	D	D
32739	Other concrete product manufacturing . . . . .	5	9	4	317	12 882	204	388	7 277	30 015	15 097	44 281	D
327390	Other concrete product manufacturing . . . . .	5	9	4	317	12 882	204	388	7 277	30 015	15 097	44 281	D
3274	Lime and gypsum product manufacturing . . . . .	—	4	2	e	D	D	D	D	D	D	D	D
32742	Gypsum product manufacturing . . . . .	—	3	2	e	D	D	D	D	D	D	D	D
327420	Gypsum product manufacturing . . . . .	—	3	2	e	D	D	D	D	D	D	D	D
3279	Other nonmetallic mineral product manufacturing . . . . .	—	13	4	263	10 628	165	333	6 159	62 952	20 782	83 304	D
331	Primary metal manufacturing . . . . .	—	22	9	h	D	D	D	D	D	D	D	D
3311	Iron and steel mills and ferroalloy manufacturing . . . . .	—	3	1	h	D	D	D	D	D	D	D	D
33111	Iron and steel mills and ferroalloy manufacturing . . . . .	—	3	1	h	D	D	D	D	D	D	D	D
331111	Iron and steel mills . . . . .	—	3	1	h	D	D	D	D	D	D	D	D
3312	Steel product manufacturing from purchased steel . . . . .	—	6	3	e	D	D	D	D	D	D	D	D
33122	Rolling and drawing of purchased steel . . . . .	—	6	3	e	D	D	D	D	D	D	D	D
331222	Steel wire drawing . . . . .	—	6	3	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
<b>Baltimore-Towson, MD Metropolitan Statistical Area—Con.</b>													
332	Fabricated metal product manufacturing .....	2	308	95	7 532	303 057	5 558	11 037	197 525	772 303	627 803	1 394 812	47 154
3321	Forging and stamping.....	1	12	8	f	D	D	D	D	D	D	D	2 478
33211	Forging and stamping.....	1	12	8	f	D	D	D	D	D	D	D	2 478
332116	Metal stamping .....	—	6	4		326	15 394	231	454	8 476	21 582	22 270	43 820
3323	Architectural and structural metals manufacturing .....	2	73	16		1 482	55 461	1 030	2 055	34 792	117 194	110 528	226 824
33231	Plate work and fabricated structural product manufacturing .....	1	23	6		640	22 670	431	875	14 385	27 586	54 032	83 061
332312	Fabricated structural metal manufacturing .....	2	16	3	e	D	D	D	D	D	D	D	1 147
332313	Plate work manufacturing .....	1	6	2	e	D	D	D	D	D	D	D	D
33232	Ornamental and architectural metal products manufacturing .....	2	50	10		842	32 791	599	1 180	20 407	89 608	56 496	143 763
332322	Sheet metal work manufacturing .....	3	26	8		542	22 297	371	744	13 210	54 369	24 757	77 020
332323	Ornamental and architectural metal work manufacturing ..	1	18	2		266	9 540	200	383	6 566	32 578	28 316	60 625
3324	Boiler, tank, and shipping container manufacturing .....	2	14	9	f	D	D	D	D	D	D	D	D
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	2	8	6	f	D	D	D	D	D	D	D	D
332431	Metal can manufacturing .....	3	5	5		521	24 454	429	868	18 835	58 691	93 634	153 823
3326	Spring and wire product manufacturing .....	5	15	9		785	23 484	676	1 357	17 507	44 514	41 448	83 225
33261	Spring and wire product manufacturing .....	5	15	9		785	23 484	676	1 357	17 507	44 514	41 448	83 225
332618	Other fabricated wire product manufacturing .....	4	13	8	f	D	D	D	D	D	D	D	D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	3	134	36		2 245	94 484	1 631	3 295	59 047	196 407	107 075	303 148
33271	Machine shops .....	4	118	30		1 751	74 311	1 262	2 537	44 762	154 780	94 433	249 709
332710	Machine shops .....	4	118	30		1 751	74 311	1 262	2 537	44 762	154 780	94 433	249 709
33272	Turned product and screw, nut, and bolt manufacturing .....	—	16	6		494	20 173	369	758	14 285	41 627	12 642	53 439
332721	Precision turned product manufacturing .....	—	13	5	e	D	D	D	D	D	D	D	D
3328	Coating, engraving, heat treating, and allied activities .....	1	33	8		572	18 808	444	803	12 524	38 216	41 369	79 098
33281	Coating, engraving, heat treating, and allied activities ..	1	33	8		572	18 808	444	803	12 524	38 216	41 369	79 098
332812	Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers ..	—	14	4	e	D	D	D	D	D	D	D	D
3329	Other fabricated metal product manufacturing .....	1	21	8		1 094	51 044	729	1 365	33 608	239 028	147 583	384 622
33291	Metal valve manufacturing .....	—	4	2	f	D	D	D	D	D	D	D	D
332912	Fluid power valve and hose fitting manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product manufacturing .....	4	17	6	e	D	D	D	D	D	D	D	D
332999	All other miscellaneous fabricated metal product manufacturing .....	4	12	6	e	D	D	D	D	D	D	D	8 104
333	Machinery manufacturing .....	3	100	32		4 485	208 709	2 613	5 309	92 406	571 202	412 905	937 535
3332	Industrial machinery manufacturing .....	6	16	6	f	D	D	D	D	D	D	D	D
33329	Other industrial machinery manufacturing .....	6	14	6	f	D	D	D	D	D	D	D	D
333291	Paper industry machinery manufacturing .....	6	4	2	e	D	D	D	D	D	D	D	D
3333	Commercial and service industry machinery manufacturing .....	—	14	3	f	D	D	D	D	D	D	D	D
33331	Commercial and service industry machinery manufacturing .....	—	14	3	f	D	D	D	D	D	D	D	D
333319	Other commercial and service industry machinery manufacturing .....	—	7	2	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>												
	<b>Baltimore-Towson, MD Metropolitan Statistical Area—Con.</b>												
333	Machinery manufacturing—Con.												
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	—	15	7	1 292	59 900	716	1 600	21 571	143 585	85 984	228 195	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	—	15	7	1 292	59 900	716	1 600	21 571	143 585	85 984	228 195	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	—	10	5	g	D	D	D	D	D	D	D	D
3336	Engine, turbine, and power transmission equipment manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
33361	Engine, turbine, and power transmission equipment manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
333613	Mechanical power transmission equipment manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing .....	6	30	12	1 528	69 190	864	1 702	30 274	198 606	206 215	364 599	4 573
33399	All other general purpose machinery manufacturing ....	9	19	9	1 268	55 568	733	1 435	24 855	120 754	104 031	226 702	3 667
333993	Packaging machinery manufacturing .....	8	4	2	e	D	D	D	D	D	D	D	D
333999	All other miscellaneous general purpose machinery manufacturing .....	9	12	6	f	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	—	118	53	j	D	D	D	D	D	D	D	195 246
3341	Computer and peripheral equipment manufacturing .....	5	17	5	e	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing ....	5	17	5	e	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment manufacturing ..	5	8	3	e	D	D	D	D	D	D	D	D
3342	Communications equipment manufacturing .....	1	28	17	h	D	D	D	D	D	D	D	D
33421	Telephone apparatus manufacturing .....	—	6	2	f	D	D	D	D	D	D	D	D
334210	Telephone apparatus manufacturing .....	—	6	2	f	D	D	D	D	D	D	D	D
33422	Radio and television broadcasting and wireless communications equipment manufacturing .....	2	16	13	g	D	D	D	D	D	D	D	D
334220	Radio and television broadcasting and wireless communications equipment manufacturing .....	2	16	13	g	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	4	27	11	899	35 701	489	935	14 176	56 391	45 807	104 345	D
33441	Semiconductor and other electronic component manufacturing .....	4	27	11	899	35 701	489	935	14 176	56 391	45 807	104 345	D
334413	Semiconductor and related device manufacturing .....	9	6	3	e	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) manufacturing .....	1	5	2	e	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	—	37	19	i	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing ...	—	37	19	i	D	D	D	D	D	D	D	D
334510	Electromedical and electrotherapeutic apparatus manufacturing ...	—	7	5	e	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	—	9	6	i	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

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NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
<b>Baltimore-Towson, MD Metropolitan Statistical Area—Con.</b>													
335	Electrical equipment, appliance, and component manufacturing .....	2	33	7	1 265	46 537	907	1 643	26 037	71 849	55 860	133 451	D
3353	Electrical equipment manufacturing .....	—	7	2	680	21 900	529	829	14 097	38 870	26 111	67 512	D
33531	Electrical equipment manufacturing .....	—	7	2	680	21 900	529	829	14 097	38 870	26 111	67 512	D
335313	Switchgear and switchboard apparatus manufacturing .....	—	3	1	f	D	D	D	D	D	D	D	D
3359	Other electrical equipment and component manufacturing .....	5	16	4	e	D	D	D	D	D	D	D	D
33592	Communication and energy wire and cable manufacturing .....	4	5	3	391	16 228	255	553	8 628	17 160	13 639	33 783	722
335921	Fiber optic cable manufacturing .....	4	5	3	391	16 228	255	553	8 628	17 160	13 639	33 783	722
336	Transportation equipment manufacturing .....	—	60	20	4 361	'217 601	3 430	6 038	'159 467	1 018 276	1 370 039	2 390 913	D
3361	Motor vehicle manufacturing .....	—	2	1	g	D	D	D	D	D	D	D	D
33611	Automobile and light duty motor vehicle manufacturing .....	—	2	1	g	D	D	D	D	D	D	D	D
336112	Light truck and utility vehicle manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	—	18	11	1 582	67 004	1 237	1 906	46 848	214 356	305 815	516 281	D
33632	Motor vehicle electrical and electronic equipment manufacturing .....	3	2	2	e	D	D	D	D	D	D	D	D
336322	Other motor vehicle electrical and electronic equipment manufacturing .....	3	2	2	e	D	D	D	D	D	D	D	D
33635	Motor vehicle transmission and power train parts manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
336350	Motor vehicle transmission and power train parts manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
33637	Motor vehicle metal stamping .....	—	1	1	e	D	D	D	D	D	D	D	D
336370	Motor vehicle metal stamping .....	—	1	1	e	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts manufacturing .....	—	5	3	e	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts manufacturing .....	—	5	3	e	D	D	D	D	D	D	D	D
3364	Aerospace product and parts manufacturing .....	—	4	2	f	D	D	D	D	D	D	D	D
33641	Aerospace product and parts manufacturing .....	—	4	2	f	D	D	D	D	D	D	D	D
336412	Aircraft engine and engine parts manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
3366	Ship and boat building .....	2	27	3	524	22 144	442	984	18 150	39 106	34 764	73 870	D
33661	Ship and boat building .....	2	27	3	524	22 144	442	984	18 150	39 106	34 764	73 870	D
336611	Ship building and repairing ..	1	15	3	445	19 948	382	877	16 701	34 252	30 404	64 656	D
337	Furniture and related product manufacturing .....	2	'145	'27	'2 532	'76 714	'1 774	'3 576	'44 022	'151 627	'114 412	'267 992	'7 652
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	4	97	9	1 144	26 516	860	1 713	16 808	49 474	45 273	94 854	4 597
33711	Wood kitchen cabinet and countertop manufacturing .....	5	56	5	424	11 170	300	565	7 139	21 465	12 974	34 443	D
337110	Wood kitchen cabinet and countertop manufacturing ..	5	56	5	424	11 170	300	565	7 139	21 465	12 974	34 443	D
33712	Household and institutional furniture manufacturing .....	3	41	4	720	15 346	560	1 148	9 669	28 009	32 299	60 411	D
337121	Upholstered household furniture manufacturing .....	8	4	1	285	4 744	241	462	3 435	9 336	10 821	20 338	D
337122	Nonupholstered wood household furniture manufacturing .....	1	29	2	315	7 536	220	499	3 987	13 244	17 497	30 912	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
<b>Baltimore-Towson, MD Metropolitan Statistical Area—Con.</b>													
337	Furniture and related product manufacturing—Con.												
3372	Office furniture (including fixtures) manufacturing .....	1	40	15	1 024	37 378	739	1 488	22 335	67 814	46 838	116 461	D
33721	Office furniture (including fixtures) manufacturing .....	1	40	15	1 024	37 378	739	1 488	22 335	67 814	46 838	116 461	D
337212	Custom architectural woodwork and millwork manufacturing .....	—	18	6	e	D	D	D	D	D	D	D	D
337215	Showcase, partition, shelving, and locker manufacturing .....	1	12	4	386	14 467	292	596	9 700	27 354	20 137	47 623	D
3379	Other furniture related product manufacturing .....	—	8	3	364	12 820	175	375	4 879	34 339	22 301	56 677	D
33792	Blind and shade manufacturing .....	—	4	2	e	D	D	D	D	D	D	D	D
337920	Blind and shade manufacturing .....	—	4	2	e	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	2	226	48	2 881	112 605	1 853	3 598	56 495	240 946	155 860	390 597	D
3391	Medical equipment and supplies manufacturing .....	2	84	15	1 106	50 890	607	1 124	19 533	113 168	54 127	160 445	D
33911	Medical equipment and supplies manufacturing .....	2	84	15	1 106	50 890	607	1 124	19 533	113 168	54 127	160 445	D
339113	Surgical appliance and supplies manufacturing .....	2	18	7	e	D	D	D	D	D	D	D	D
339116	Dental laboratories .....	3	47	3	e	D	D	D	D	D	D	D	D
3399	Other miscellaneous manufacturing .....	2	142	33	1 775	61 715	1 246	2 474	36 962	127 778	101 733	230 152	D
33995	Sign manufacturing .....	4	66	14	663	22 092	439	898	11 850	40 725	21 554	61 514	D
339950	Sign manufacturing .....	4	66	14	663	22 092	439	898	11 850	40 725	21 554	61 514	D
33999	All other miscellaneous manufacturing .....	1	41	14	779	26 802	553	1 059	16 196	63 617	38 581	101 281	D
339999	All other miscellaneous manufacturing .....	1	31	11	e	D	D	D	D	D	D	D	D
<b>Lexington Park, MD Micropolitan Statistical Area</b>													
31-33	Manufacturing .....	3	31	4	430	11 979	281	532	6 601	24 774	21 058	45 970	D
<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area</b>													
31-33	Manufacturing .....	1	2 553	602	70 848	3 130 998	40 783	80 218	1 384 798	8 246 731	6 370 167	14 780 577	429 781
311	Food manufacturing .....	2	214	48	4 586	130 942	2 776	5 415	73 444	698 209	503 845	1 200 246	16 240
3115	Dairy product manufacturing .....	—	7	5	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) manufacturing .....	—	5	4	645	29 109	418	933	17 549	167 546	249 858	417 479	2 398
311511	Fluid milk manufacturing .....	—	4	4	f	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	2	11	4	506	14 241	387	893	9 308	80 029	36 255	116 262	1 298
31161	Animal slaughtering and processing .....	2	11	4	506	14 241	387	893	9 308	80 029	36 255	116 262	1 298
311612	Meat processed from carcasses .....	2	7	4	e	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	2	146	33	h	D	D	D	D	D	D	D	6 231
31181	Bread and bakery product manufacturing .....	2	140	31	h	D	D	D	D	D	D	D	D
311811	Retail bakeries .....	4	105	20	g	D	D	D	D	D	D	D	D
311812	Commercial bakeries .....	1	34	11	1 104	39 899	538	1 123	17 360	256 875	58 641	315 384	4 726
3119	Other food manufacturing .....	9	30	3	431	12 541	320	645	7 487	91 646	84 803	174 630	3 345
312	Beverage and tobacco product manufacturing .....	1	22	7	664	29 487	226	469	8 868	139 199	239 911	379 974	10 645
3121	Beverage manufacturing .....	1	22	7	664	29 487	226	469	8 868	139 199	239 911	379 974	10 645
31211	Soft drink and ice manufacturing .....	—	8	6	f	D	D	D	D	D	D	D	9 899
312111	Soft drink manufacturing .....	—	5	5	f	D	D	D	D	D	D	D	D
314	Textile product mills .....	5	67	8	588	14 826	436	837	8 056	28 009	20 806	49 641	D
3141	Textile furnishings mills .....	5	44	6	414	9 589	305	560	5 067	16 573	16 075	33 363	D
31412	Curtain and linen mills .....	5	42	6	e	D	D	D	D	D	D	D	D
314121	Curtain and drapery mills .....	4	37	6	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

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<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area—Con.</b>													
315	Apparel manufacturing .....	9	62	5	e	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing .....	9	41	5	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	1	81	29	2 986	91 058	2 369	4 868	60 367	292 711	355 574	645 700	14 229
3212	Veneer, plywood, and engineered wood product manufacturing .....	2	8	7	328	10 268	254	583	6 153	21 800	23 909	45 633	D
32121	Veneer, plywood, and engineered wood product manufacturing .....	2	8	7	328	10 268	254	583	6 153	21 800	23 909	45 633	D
321214	Truss manufacturing .....	1	6	6	e	D	D	D	D	D	D	D	D
3219	Other wood product manufacturing .....	1	58	19	2 455	75 027	1 944	3 967	49 765	258 788	285 898	542 069	11 758
32191	Millwork .....	3	38	9	968	31 732	764	1 653	20 936	71 177	87 010	156 969	D
321911	Wood window and door manufacturing .....	—	11	4	582	19 188	456	1 024	12 566	44 553	49 141	92 992	1 320
321918	Other millwork (including flooring) .....	8	19	3	298	9 975	238	492	6 686	17 410	27 507	44 837	1 407
32199	All other wood product manufacturing .....	—	14	7	1 383	40 963	1 090	2 138	27 018	177 706	194 224	370 630	8 020
321992	Prefabricated wood building manufacturing .....	—	5	3	g	D	D	D	D	D	D	D	D
321999	All other miscellaneous wood product manufacturing .....	3	9	4	e	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	2	15	6	e	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing .....	2	14	5	e	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	1	653	134	15 306	603 105	11 017	20 897	383 470	1 162 946	669 526	1 829 505	89 074
3231	Printing and related support activities .....	1	653	134	15 306	603 105	11 017	20 897	383 470	1 162 946	669 526	1 829 505	89 074
32311	Printing .....	1	592	125	14 608	573 771	10 515	19 914	364 639	1 107 395	651 574	1 756 139	87 452
323110	Commercial lithographic printing .....	1	301	95	10 453	437 543	7 615	14 770	280 643	816 790	522 106	1 336 696	56 321
323113	Commercial screen printing .....	1	34	5	745	17 766	571	576	9 779	39 751	17 978	58 260	1 536
323114	Quick printing .....	3	147	8	983	30 861	621	1 141	17 525	66 156	23 921	89 937	4 071
323115	Digital printing .....	—	27	2	497	20 734	237	468	10 632	43 973	11 322	55 074	D
323117	Books printing .....	—	18	9	1 512	52 397	1 184	2 416	37 044	107 601	56 389	162 478	14 792
323119	Other commercial printing .....	5	45	4	280	9 284	194	351	5 592	19 469	10 414	30 594	452
32312	Support activities for printing .....	5	61	9	698	29 334	502	983	18 831	55 551	17 952	73 366	1 622
323121	Tradebinding and related work .....	6	23	4	387	13 307	313	626	9 689	27 966	11 016	38 794	855
323122	Prepress services .....	5	38	5	311	16 027	189	357	9 142	27 585	6 936	34 572	767
324	Petroleum and coal products manufacturing .....	—	17	3	451	17 910	343	699	13 169	81 235	106 443	187 322	9 491
3241	Petroleum and coal products manufacturing .....	—	17	3	451	17 910	343	699	13 169	81 235	106 443	187 322	9 491
32412	Asphalt paving, roofing, and saturated materials manufacturing .....	—	17	3	451	17 910	343	699	13 169	81 235	106 443	187 322	9 491
324122	Asphalt shingle and coating materials manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	—	79	26	3 060	162 741	1 630	2 903	75 364	1 358 120	412 972	1 790 425	31 194
3254	Pharmaceutical and medicine manufacturing .....	—	29	12	1 560	85 509	813	1 469	35 390	828 538	94 813	937 670	21 066
32541	Pharmaceutical and medicine manufacturing .....	—	29	12	1 560	85 509	813	1 469	35 390	828 538	94 813	937 670	21 066
325413	In-vitro diagnostic substance manufacturing .....	8	8	5	e	D	D	D	D	D	D	D	D
325414	Biological product (except diagnostic) manufacturing .....	—	7	5	g	D	D	D	D	D	D	D	D
3255	Paint, coating, and adhesive manufacturing .....	—	9	5	f	D	D	D	D	D	D	D	D
32551	Paint and coating manufacturing .....	—	7	4	f	D	D	D	D	D	D	D	D
325510	Paint and coating manufacturing .....	—	7	4	f	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing .....	3	21	7	e	D	D	D	D	D	D	D	D
32599	All other chemical product and preparation manufacturing .....	6	17	5	e	D	D	D	D	D	D	D	1 116

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

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<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area—Con.</b>													
326	Plastics and rubber products manufacturing .....	1	43	23	1 681	52 841	1 203	2 283	34 613	126 828	127 473	253 589	5 785
3261	Plastics product manufacturing ..	1	40	21	g	D	D	D	D	D	D	D	D
32611	Plastics packaging materials and un laminated film and sheet manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
326111	Plastics bag manufacturing ..	—	1	1	e	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	1	31	17	1 005	30 555	644	1 270	17 476	85 905	65 546	150 951	3 982
326199	All other plastics product manufacturing .....	1	27	15	939	28 777	604	1 202	16 640	79 039	60 797	139 587	D
327	Nonmetallic mineral product manufacturing .....	1	148	54	3 176	126 741	2 485	5 231	90 306	373 658	314 198	682 105	33 623
3273	Cement and concrete product manufacturing .....	1	98	44	2 675	108 944	2 104	4 504	76 866	330 609	293 560	618 997	32 086
32732	Ready-mix concrete manufacturing .....	—	57	21	1 185	51 539	994	2 090	40 958	175 860	187 429	362 571	D
327320	Ready-mix concrete manufacturing .....	—	57	21	1 185	51 539	994	2 090	40 958	175 860	187 429	362 571	D
32733	Concrete pipe, brick, and block manufacturing .....	4	11	7	e	D	D	D	D	D	D	D	D
32739	Other concrete product manufacturing .....	1	26	14	964	34 585	719	1 539	20 795	79 270	38 276	116 486	D
327390	Other concrete product manufacturing .....	1	26	14	964	34 585	719	1 539	20 795	79 270	38 276	116 486	D
3279	Other nonmetallic mineral product manufacturing .....	2	18	6	293	11 799	206	359	8 785	29 367	12 925	42 177	D
32799	All other nonmetallic mineral product manufacturing .....	2	18	6	293	11 799	206	359	8 785	29 367	12 925	42 177	D
327991	Cut stone and stone product manufacturing .....	3	15	5	e	D	D	D	D	D	D	D	D
331	Primary metal manufacturing .....	—	8	3	f	D	D	D	D	D	D	D	D
3313	Alumina and aluminum production and processing .....	—	2	1	f	D	D	D	D	D	D	D	D
33131	Alumina and aluminum production and processing ...	—	2	1	f	D	D	D	D	D	D	D	D
331312	Primary aluminum production .....	—	1	1	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	2	228	60	4 749	185 833	3 280	6 586	105 328	456 230	308 389	798 460	17 429
3323	Architectural and structural metals manufacturing .....	2	105	31	2 799	107 572	1 898	3 839	59 057	226 046	197 798	430 550	8 050
33231	Plate work and fabricated structural product manufacturing .....	3	26	12	1 025	38 954	681	1 408	22 185	78 385	110 573	192 061	3 278
332312	Fabricated structural metal manufacturing .....	3	20	11	f	D	D	D	D	D	D	D	D
33232	Ornamental and architectural metal products manufacturing .....	1	79	19	1 774	68 618	1 217	2 431	36 872	147 661	87 225	238 489	4 772
332321	Metal window and door manufacturing .....	2	11	2	427	11 992	358	673	8 302	26 008	27 723	55 041	1 309
332322	Sheet metal work manufacturing .....	2	37	8	623	22 176	438	864	12 666	41 343	31 872	73 520	2 043
332323	Ornamental and architectural metal work manufacturing ..	1	31	9	724	34 450	421	894	15 904	80 310	27 630	109 928	1 420
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	2	64	12	690	29 433	539	1 031	20 724	60 382	15 722	76 062	5 088
33271	Machine shops .....	2	58	12	647	27 592	509	963	19 210	56 542	14 833	71 347	4 994
332710	Machine shops .....	2	58	12	647	27 592	509	963	19 210	56 542	14 833	71 347	4 994
3329	Other fabricated metal product manufacturing .....	1	21	10	777	30 567	501	1 042	15 514	109 957	78 669	215 328	3 323
33299	All other fabricated metal product manufacturing .....	1	20	10	f	D	D	D	D	D	D	D	D
332994	Small arms manufacturing ...	—	3	2	e	D	D	D	D	D	D	D	D
332999	All other miscellaneous fabricated metal product manufacturing .....	2	13	7	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

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	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area—Con.</b>												
333	Machinery manufacturing .....	4	'78	'21	'3 351	'130 306	'2 271	'4 417	'70 488	'274 147	'255 932	'533 965	'12 231
3332	Industrial machinery manufacturing .....	2	17	3	554	30 615	273	458	12 394	69 724	41 533	114 955	943
33329	Other industrial machinery manufacturing .....	2	17	3	554	30 615	273	458	12 394	69 724	41 533	114 955	943
3333	Commercial and service industry machinery manufacturing .....	8	24	5	1 290	38 990	1 049	2 080	27 441	102 585	101 207	204 704	D
33331	Commercial and service industry machinery manufacturing .....	8	24	5	1 290	38 990	1 049	2 080	27 441	102 585	101 207	204 704	D
333311	Automatic vending machine manufacturing .....	9	3	2	f	D	D	D	D	D	D	D	D
333319	Other commercial and service industry machinery manufacturing .....	3	10	3	278	9 709	230	476	6 990	10 814	7 079	17 799	367
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	6	5	2	281	11 430	161	323	4 887	9 383	19 929	29 007	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	6	5	2	281	11 430	161	323	4 887	9 383	19 929	29 007	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	6	4	2	e	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing .....	1	'16	'7	'878	'35 149	'580	'1 161	'19 703	'74 431	'52 247	'126 284	D
33399	All other general purpose machinery manufacturing ....	1	9	4	f	D	D	D	D	D	D	D	D
333999	All other miscellaneous general purpose machinery manufacturing .....	-	4	1	e	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	1	233	87	18 872	1 121 230	5 209	10 494	213 048	2 246 235	2 112 964	4 437 459	142 615
3341	Computer and peripheral equipment manufacturing .....	5	22	7	f	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing ....	5	22	7	f	D	D	D	D	D	D	D	D
334111	Electronic computer manufacturing .....	4	10	4	e	D	D	D	D	D	D	D	D
3342	Communications equipment manufacturing .....	-	64	30	6 453	378 207	1 094	2 167	34 234	570 933	1 384 280	1 982 748	65 173
33421	Telephone apparatus manufacturing .....	4	16	7	f	D	D	D	D	D	D	D	D
334210	Telephone apparatus manufacturing .....	4	16	7	f	D	D	D	D	D	D	D	D
33422	Radio and television broadcasting and wireless communications equipment manufacturing .....	-	33	19	5 086	302 173	694	1 289	20 597	409 873	1 272 366	1 707 023	61 953
334220	Radio and television broadcasting and wireless communications equipment manufacturing .....	-	33	19	5 086	302 173	694	1 289	20 597	409 873	1 272 366	1 707 023	61 953
33429	Other communications equipment manufacturing ....	-	15	4	f	D	D	D	D	D	D	D	D
334290	Other communications equipment manufacturing ..	-	15	4	f	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	4	50	21	3 207	158 107	1 905	3 890	87 744	302 429	147 204	487 221	27 126
33441	Semiconductor and other electronic component manufacturing .....	4	50	21	3 207	158 107	1 905	3 890	87 744	302 429	147 204	487 221	27 126
334412	Bare printed circuit board manufacturing .....	-	8	4	e	D	D	D	D	D	D	D	D
334413	Semiconductor and related device manufacturing .....	6	12	6	g	D	D	D	D	D	D	D	16 473
334418	Printed circuit assembly (electronic assembly) manufacturing .....	1	10	4	593	30 595	201	506	5 739	58 238	43 299	101 193	D
334419	Other electronic component manufacturing .....	5	13	7	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

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334	Computer and electronic product manufacturing—Con.												
3345	Navigational, measuring, electromedical, and control instruments manufacturing . . . . .	—	69	26	8 204	540 304	1 739	3 485	76 702	1 267 894	500 744	1 784 569	46 823
33451	Navigational, measuring, electromedical, and control instruments manufacturing . . .	—	69	26	8 204	540 304	1 739	3 485	76 702	1 267 894	500 744	1 784 569	46 823
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing . . . . .	—	14	8	5 096	320 736	1 048	2 097	51 109	891 627	183 793	1 096 588	24 403
334515	Instrument manufacturing for measuring and testing electricity and electrical signals . . . . .	—	10	6	2 121	173 932	240	514	10 061	278 386	220 805	498 386	D
334516	Analytical laboratory instrument manufacturing . .	—	12	3	e	D	D	D	D	D	D	D	D
334519	Other measuring and controlling device manufacturing . . . . .	2	14	4	e	D	D	D	D	D	D	D	D
3346	Manufacturing and reproducing magnetic and optical media . . . . .	1	22	3	e	D	D	D	D	D	D	D	D
33461	Manufacturing and reproducing magnetic and optical media . .	1	22	3	e	D	D	D	D	D	D	D	D
334612	Prerecorded compact disc (except software), tape, and record reproducing . . . . .	—	15	3	e	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing . . . . .	3	27	8	e	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing . . . . .	—	34	12	2 329	147 209	1 067	2 206	58 972	242 514	293 604	544 412	16 636
3363	Motor vehicle parts manufacturing . . . . .	—	12	5	f	D	D	D	D	D	D	D	D
33635	Motor vehicle transmission and power train parts manufacturing . . . . .	—	3	1	e	D	D	D	D	D	D	D	D
336350	Motor vehicle transmission and power train parts manufacturing . . . . .	—	3	1	e	D	D	D	D	D	D	D	D
3364	Aerospace product and parts manufacturing . . . . .	—	9	6	1 644	113 296	497	1 077	31 005	177 994	157 095	342 382	15 196
33641	Aerospace product and parts manufacturing . . . . .	—	9	6	1 644	113 296	497	1 077	31 005	177 994	157 095	342 382	15 196
336413	Other aircraft parts and auxiliary equipment manufacturing . . . . .	—	5	3	e	D	D	D	D	D	D	D	D
336414	Guided missile and space vehicle manufacturing . . . . .	—	1	1	f	D	D	D	D	D	D	D	D
336415	Guided missile and space vehicle propulsion unit and propulsion unit parts manufacturing . . . . .	—	1	1	e	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing . . . . .	2	205	31	3 669	113 549	2 712	5 432	74 804	297 563	208 900	506 169	10 267
3371	Household and institutional furniture and kitchen cabinet manufacturing . . . . .	1	151	16	1 724	51 259	1 391	2 829	36 881	164 630	122 773	287 279	D
33711	Wood kitchen cabinet and countertop manufacturing . . . . .	1	97	8	1 045	32 593	827	1 723	22 783	127 518	93 536	220 927	D
337110	Wood kitchen cabinet and countertop manufacturing . .	1	97	8	1 045	32 593	827	1 723	22 783	127 518	93 536	220 927	D
33712	Household and institutional furniture manufacturing . . . . .	1	54	8	679	18 666	564	1 106	14 098	37 112	29 237	66 352	D
337121	Upholstered household furniture manufacturing . . . . .	—	14	2	275	6 096	245	463	5 043	14 538	17 183	31 737	D
337122	Nonupholstered wood household furniture manufacturing . . . . .	2	33	4	271	8 204	217	431	6 340	15 461	9 033	24 359	D

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337	Furniture and related product manufacturing—Con.												
3372	Office furniture (including fixtures) manufacturing .....	4	47	13	1 510	47 176	972	1 950	28 419	83 719	47 410	130 751	2 745
33721	Office furniture (including fixtures) manufacturing .....	4	47	13	1 510	47 176	972	1 950	28 419	83 719	47 410	130 751	2 745
337212	Custom architectural woodwork and millwork manufacturing .....	1	23	8	802	23 381	447	935	13 517	41 085	20 212	60 951	D
337215	Showcase, partition, shelving, and locker manufacturing .....	6	12	3	552	18 216	401	763	11 119	30 201	20 257	50 426	D
3379	Other furniture related product manufacturing .....	—	7	2	435	15 114	349	653	9 504	49 214	38 717	88 139	D
33791	Mattress manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
337910	Mattress manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	3	320	36	2 966	103 266	1 986	3 841	53 700	212 806	114 031	326 841	D
3391	Medical equipment and supplies manufacturing .....	4	170	14	1 163	41 817	750	1 411	21 089	96 023	40 987	136 376	D
33911	Medical equipment and supplies manufacturing .....	4	170	14	1 163	41 817	750	1 411	21 089	96 023	40 987	136 376	D
339116	Dental laboratories .....	5	108	4	490	14 787	364	658	10 637	23 809	5 561	29 288	D
3399	Other miscellaneous manufacturing .....	3	150	22	1 803	61 449	1 236	2 430	32 611	116 783	73 044	190 465	D
33995	Sign manufacturing .....	3	82	16	1 178	43 021	775	1 543	22 421	77 905	44 491	123 396	D
339950	Sign manufacturing .....	3	82	16	1 178	43 021	775	1 543	22 421	77 905	44 491	123 396	D
33999	All other miscellaneous manufacturing .....	1	31	3	368	10 271	280	539	6 142	17 562	14 400	31 551	D
<b>Bethesda-Frederick-Gaithersburg, MD Metropolitan Division</b>													
31-33	Manufacturing .....	—	707	159	22 925	1 125 598	10 865	21 145	359 826	3 234 554	2 809 544	6 090 690	170 037
311	Food manufacturing .....	1	53	12	1 190	36 392	739	1 502	21 600	315 372	163 190	479 184	5 564
3115	Dairy product manufacturing .....	—	4	2	e	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
311511	Fluid milk manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	1	38	9	780	20 166	468	910	11 925	200 417	36 626	236 932	3 010
31181	Bread and bakery product manufacturing .....	1	38	9	780	20 166	468	910	11 925	200 417	36 626	236 932	3 010
311811	Retail bakeries .....	5	30	5	414	6 520	212	336	3 473	12 252	6 540	18 769	361
311812	Commercial bakeries .....	—	8	4	366	13 646	256	574	8 452	188 165	30 086	218 163	2 649
321	Wood product manufacturing .....	—	21	8	1 197	38 661	932	1 960	25 698	179 481	208 887	386 073	7 387
3219	Other wood product manufacturing .....	—	14	5	1 105	35 265	871	1 834	24 048	172 958	198 956	369 770	D
32199	All other wood product manufacturing .....	—	6	3	f	D	D	D	D	D	D	D	D
321992	Prefabricated wood building manufacturing .....	—	3	2	f	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	1	151	25	3 090	114 505	2 183	4 163	69 184	271 549	105 660	377 581	13 034
3231	Printing and related support activities .....	1	151	25	3 090	114 505	2 183	4 163	69 184	271 549	105 660	377 581	13 034
32311	Printing .....	1	136	24	2 994	110 058	2 113	4 026	66 278	263 167	102 226	365 767	12 873
323110	Commercial lithographic printing .....	—	61	15	2 218	83 678	1 555	3 032	49 100	208 721	70 752	280 539	9 125
323117	Books printing .....	2	11	5	377	13 633	317	580	10 808	26 774	18 478	44 564	D
325	Chemical manufacturing .....	—	25	11	1 334	71 117	703	1 245	30 327	747 600	71 220	838 167	16 100
3254	Pharmaceutical and medicine manufacturing .....	—	16	8	1 161	64 331	633	1 096	27 839	733 514	56 439	809 541	15 224
32541	Pharmaceutical and medicine manufacturing .....	—	16	8	1 161	64 331	633	1 096	27 839	733 514	56 439	809 541	15 224
325413	In-vitro diagnostic substance manufacturing .....	8	7	5	e	D	D	D	D	D	D	D	D
325414	Biological product (except diagnostic) manufacturing ..	—	4	3	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>												
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area—Con.</b>												
	<b>Bethesda-Frederick-Gaithersburg, MD Metropolitan Division—Con.</b>												
326	Plastics and rubber products manufacturing .....	-	9	4	257	8 337	174	342	4 724	36 015	30 444	66 010	659
3261	Plastics product manufacturing ..	-	9	4	257	8 337	174	342	4 724	36 015	30 444	66 010	659
32619	Other plastics product manufacturing .....	-	9	4	257	8 337	174	342	4 724	36 015	30 444	66 010	659
327	Nonmetallic mineral product manufacturing .....	1	39	15	809	33 637	641	1 214	23 352	85 623	76 285	158 506	D
3273	Cement and concrete product manufacturing .....	-	19	10	558	25 196	437	853	16 773	69 937	67 858	134 854	D
331	Primary metal manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3313	Alumina and aluminum production and processing .....	-	1	1	f	D	D	D	D	D	D	D	D
33131	Alumina and aluminum production and processing ...	-	1	1	f	D	D	D	D	D	D	D	D
331312	Primary aluminum production .....	-	1	1	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	3	52	12	1 105	40 635	736	1 389	24 400	77 096	62 329	139 681	3 602
3323	Architectural and structural metals manufacturing .....	2	19	7	813	29 524	523	1 027	17 083	55 664	52 028	107 916	2 947
33231	Plate work and fabricated structural product manufacturing .....	5	7	3	e	D	D	D	D	D	D	D	D
332312	Fabricated structural metal manufacturing .....	5	5	3	e	D	D	D	D	D	D	D	D
33232	Ornamental and architectural metal products manufacturing .....	-	12	4	e	D	D	D	D	D	D	D	D
332322	Sheet metal work manufacturing .....	-	6	2	253	7 469	158	316	3 724	14 122	13 985	28 256	998
333	Machinery manufacturing .....	3	24	9	1 022	47 601	570	1 036	20 827	84 915	85 321	173 015	2 301
3332	Industrial machinery manufacturing .....	2	7	2	365	22 619	152	206	8 376	48 060	28 941	80 423	D
33329	Other industrial machinery manufacturing .....	2	7	2	365	22 619	152	206	8 376	48 060	28 941	80 423	D
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	6	4	2	e	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	6	4	2	e	D	D	D	D	D	D	D	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	6	4	2	e	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	-	93	38	9 881	609 547	2 033	4 047	65 406	983 094	1 641 942	2 646 688	95 701
3342	Communications equipment manufacturing .....	-	24	14	5 192	310 014	663	1 256	19 204	418 907	1 253 405	1 701 433	D
33422	Radio and television broadcasting and wireless communications equipment manufacturing .....	-	16	11	4 726	285 925	537	962	15 787	362 297	1 223 501	1 614 638	60 795
334220	Radio and television broadcasting and wireless communications equipment manufacturing .....	-	16	11	4 726	285 925	537	962	15 787	362 297	1 223 501	1 614 638	60 795
33429	Other communications equipment manufacturing ....	-	4	2	e	D	D	D	D	D	D	D	D
334290	Other communications equipment manufacturing ..	-	4	2	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>												
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area—Con.</b>												
	<b>Bethesda-Frederick-Gaithersburg, MD Metropolitan Division—Con.</b>												
334	Computer and electronic product manufacturing—Con.												
3344	Semiconductor and other electronic component manufacturing .....	1	26	12	1 541	68 791	745	1 564	21 590	155 286	73 284	229 101	D
33441	Semiconductor and other electronic component manufacturing .....	1	26	12	1 541	68 791	745	1 564	21 590	155 286	73 284	229 101	D
334413	Semiconductor and related device manufacturing .....	—	6	3	e	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) manufacturing .....	—	5	2	421	23 332	89	246	2 115	42 334	25 773	68 145	D
334419	Other electronic component manufacturing .....	3	9	5	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	—	28	8	2 873	217 639	506	1 008	21 310	382 222	293 161	667 399	22 591
33451	Navigational, measuring, electromedical, and control instruments manufacturing ...	—	28	8	2 873	217 639	506	1 008	21 310	382 222	293 161	667 399	22 591
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	—	4	1	e	D	D	D	D	D	D	D	D
334515	Instrument manufacturing for measuring and testing electricity and electrical signals .....	—	5	3	2 002	167 629	185	401	8 175	267 870	210 997	477 955	D
335	Electrical equipment, appliance, and component manufacturing .....	1	12	4	e	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	6	66	7	522	16 461	404	791	10 898	30 107	19 586	49 713	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	6	49	4	331	10 208	255	502	6 996	18 143	11 425	29 595	D
339	Miscellaneous manufacturing .....	6	109	8	656	22 465	435	796	11 575	47 553	18 678	66 058	D
3391	Medical equipment and supplies manufacturing .....	6	73	7	473	16 876	318	583	8 639	37 448	11 828	49 244	D
33911	Medical equipment and supplies manufacturing .....	6	73	7	473	16 876	318	583	8 639	37 448	11 828	49 244	D
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division</b>												
31-33	Manufacturing .....	2	'1 846	'443	'47 923	'2 005 400	29 918	59 073	1 024 972	'5 012 177	'3 560 623	'8 689 887	'259 744
311	Food manufacturing .....	3	161	36	3 396	94 550	2 037	3 913	51 844	382 837	340 655	721 062	10 676
3115	Dairy product manufacturing .....	—	3	3	420	19 810	284	626	12 486	76 542	150 843	226 946	D
31151	Dairy product (except frozen) manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
311511	Fluid milk manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	2	11	4	506	14 241	387	893	9 308	80 029	36 255	116 262	1 298
31161	Animal slaughtering and processing .....	2	11	4	506	14 241	387	893	9 308	80 029	36 255	116 262	1 298
311612	Meat processed from carcasses .....	2	7	4	e	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	3	108	24	g	D	D	D	D	D	D	D	3 221
31181	Bread and bakery product manufacturing .....	3	102	22	g	D	D	D	D	D	D	D	D
311811	Retail bakeries .....	4	75	15	f	D	D	D	D	D	D	D	D
311812	Commercial bakeries .....	3	26	7	738	26 253	282	549	8 908	68 710	28 555	97 221	2 077
3119	Other food manufacturing .....	9	21	2	e	D	D	D	D	D	D	D	2 631

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

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	<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>												
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area—Con.</b>												
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division—Con.</b>												
312	Beverage and tobacco product manufacturing .....	1	16	6	f	D	D	D	D	D	D	D	D
3121	Beverage manufacturing .....	1	16	6	f	D	D	D	D	D	D	D	D
31211	Soft drink and ice manufacturing .....	1	6	5	f	D	D	D	D	D	D	D	D
312111	Soft drink manufacturing ....	1	4	4	e	D	D	D	D	D	D	D	D
314	Textile product mills .....	5	53	7	493	12 239	373	728	6 874	23 057	17 059	40 948	D
3141	Textile furnishings mills .....	6	34	5	331	7 407	251	469	4 159	12 323	12 842	25 886	D
31412	Curtain and linen mills .....	5	32	5	e	D	D	D	D	D	D	D	D
314121	Curtain and drapery mills ....	5	28	5	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	2	60	21	1 789	52 397	1 437	2 908	34 669	113 230	146 687	259 627	6 842
3219	Other wood product manufacturing .....	3	44	14	1 350	39 762	1 073	2 133	25 717	85 830	86 942	172 299	D
32191	Millwork .....	4	30	7	f	D	D	D	D	D	D	D	3 550
321911	Wood window and door manufacturing .....	—	8	3	e	D	D	D	D	D	D	D	D
321918	Other millwork (including flooring) .....	8	14	2	251	8 780	204	427	5 913	14 794	25 130	39 784	1 343
32199	All other wood product manufacturing .....	1	8	4	e	D	D	D	D	D	D	D	D
321999	All other miscellaneous wood product manufacturing .....	2	6	3	e	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	2	13	6	e	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing .....	2	12	5	e	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	1	502	109	12 216	488 600	8 834	16 734	314 286	891 397	563 866	1 451 924	76 040
3231	Printing and related support activities .....	1	502	109	12 216	488 600	8 834	16 734	314 286	891 397	563 866	1 451 924	76 040
32311	Printing .....	1	456	101	11 614	463 713	8 402	15 888	298 361	844 228	549 348	1 390 372	74 579
323110	Commercial lithographic printing .....	1	240	80	8 235	353 865	6 060	11 738	231 543	608 069	451 354	1 056 157	47 196
323113	Commercial screen printing ..	—	24	5	659	15 269	521	493	8 666	34 979	15 659	51 169	1 473
323114	Quick printing .....	3	122	5	824	25 445	537	987	15 119	55 628	19 667	75 152	3 144
323115	Digital printing .....	—	22	2	475	20 144	222	450	10 297	41 833	10 867	52 480	D
323117	Books printing .....	—	7	4	1 135	38 764	867	1 836	26 236	80 827	37 911	117 914	D
32312	Support activities for printing ...	5	46	8	602	24 887	432	846	15 925	47 169	14 518	61 552	1 461
323121	Tradebinding and related work .....	6	19	4	377	13 061	303	608	9 450	27 594	10 985	38 391	D
325	Chemical manufacturing .....	—	54	15	1 726	91 624	927	1 658	45 037	610 520	341 752	952 258	15 094
3254	Pharmaceutical and medicine manufacturing .....	1	13	4	399	21 178	180	373	7 551	95 024	38 374	128 129	5 842
32541	Pharmaceutical and medicine manufacturing .....	1	13	4	399	21 178	180	373	7 551	95 024	38 374	128 129	5 842
325414	Biological product (except diagnostic) manufacturing ..	—	3	2	e	D	D	D	D	D	D	D	D
3255	Paint, coating, and adhesive manufacturing .....	—	6	3	f	D	D	D	D	D	D	D	D
32551	Paint and coating manufacturing .....	—	4	2	f	D	D	D	D	D	D	D	D
325510	Paint and coating manufacturing .....	—	4	2	f	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing .....	3	19	6	e	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	2	34	19	1 424	44 504	1 029	1 941	29 889	90 813	97 029	187 579	5 126
3261	Plastics product manufacturing ..	1	31	17	g	D	D	D	D	D	D	D	D
32611	Plastics packaging materials and un laminated film and sheet manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
326111	Plastics bag manufacturing ..	—	1	1	e	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	2	22	13	748	22 218	470	928	12 752	49 890	35 102	84 941	3 323
326199	All other plastics product manufacturing .....	2	19	12	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>												
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area—Con.</b>												
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division—Con.</b>												
327	Nonmetallic mineral product manufacturing .....	1	'109	'39	'2 367	'93 104	1 844	4 017	66 954	'288 035	'237 913	'523 599	D
3273	Cement and concrete product manufacturing .....	1	'79	'34	'2 117	'83 748	1 667	3 651	60 093	'260 672	'225 702	'484 143	D
32732	Ready-mix concrete manufacturing .....	1	48	16	947	41 214	796	1 762	33 627	145 902	150 698	295 866	D
327320	Ready-mix concrete manufacturing .....	1	48	16	947	41 214	796	1 762	33 627	145 902	150 698	295 866	D
32739	Other concrete product manufacturing .....	1	'22	'13	'916	'32 589	691	1 480	19 974	'75 753	'37 143	'111 829	D
327390	Other concrete product manufacturing .....	1	'22	'13	'916	'32 589	691	1 480	19 974	'75 753	'37 143	'111 829	D
332	Fabricated metal product manufacturing .....	1	'176	'48	'3 644	'145 198	'2 544	'5 197	'80 928	'379 134	'246 060	'658 779	'13 827
3323	Architectural and structural metals manufacturing .....	2	'86	'24	'1 986	'78 048	'1 375	'2 812	'41 974	'170 382	'145 770	'322 634	'5 103
33231	Plate work and fabricated structural product manufacturing .....	2	19	9	f	D	D	D	D	D	D	D	D
332312	Fabricated structural metal manufacturing .....	2	15	8	f	D	D	D	D	D	D	D	D
33232	Ornamental and architectural metal products manufacturing .....	'2	'67	'15	g	D	D	D	D	D	D	D	D
332321	Metal window and door manufacturing .....	1	9	2	e	D	D	D	D	D	D	D	D
332322	Sheet metal work manufacturing .....	'3	'31	'6	'370	'14 707	'280	'548	'8 942	'27 221	'17 887	'45 264	'1 045
332323	Ornamental and architectural metal work manufacturing ..	1	27	7	f	D	D	D	D	D	D	D	D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	2	46	9	e	D	D	D	D	D	D	D	D
33271	Machine shops .....	2	42	9	469	20 561	362	729	14 124	43 775	10 038	53 727	4 745
332710	Machine shops .....	2	42	9	469	20 561	362	729	14 124	43 775	10 038	53 727	4 745
3329	Other fabricated metal product manufacturing .....	—	18	9	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product manufacturing .....	—	17	9	f	D	D	D	D	D	D	D	D
332994	Small arms manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
332999	All other miscellaneous fabricated metal product manufacturing .....	2	10	6	e	D	D	D	D	D	D	D	582
333	Machinery manufacturing .....	5	'54	'12	'2 329	'82 705	'1 701	'3 381	'49 661	'189 232	'170 611	'360 950	'9 930
3333	Commercial and service industry machinery manufacturing .....	8	21	5	1 262	37 977	1 035	2 052	27 036	100 339	100 580	202 018	D
33331	Commercial and service industry machinery manufacturing .....	8	21	5	1 262	37 977	1 035	2 052	27 036	100 339	100 580	202 018	D
333311	Automatic vending machine manufacturing .....	9	3	2	f	D	D	D	D	D	D	D	D
333319	Other commercial and service industry machinery manufacturing .....	3	9	3	e	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing .....	—	'11	'4	'717	'28 682	'478	'951	'16 281	'57 402	'28 909	'86 070	D
33399	All other general purpose machinery manufacturing .....	—	7	3	f	D	D	D	D	D	D	D	D
333999	All other miscellaneous general purpose machinery manufacturing .....	—	3	1	e	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	2	140	49	8 991	511 683	3 176	6 447	147 642	1 263 141	471 022	1 790 771	46 914
3341	Computer and peripheral equipment manufacturing .....	5	13	4	e	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing .....	5	13	4	e	D	D	D	D	D	D	D	D
334111	Electronic computer manufacturing .....	5	6	3	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>												
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area—Con.</b>												
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division—Con.</b>												
334	Computer and electronic product manufacturing—Con.												
3342	Communications equipment manufacturing .....	3	40	16	1 261	68 193	431	911	15 030	152 026	130 875	281 315	D
33421	Telephone apparatus manufacturing .....	3	12	6	f	D	D	D	D	D	D	D	D
334210	Telephone apparatus manufacturing .....	3	12	6	f	D	D	D	D	D	D	D	D
33422	Radio and television broadcasting and wireless communications equipment manufacturing .....	5	17	8	360	16 248	157	327	4 810	47 576	48 865	92 385	1 158
334220	Radio and television broadcasting and wireless communications equipment manufacturing .....	5	17	8	360	16 248	157	327	4 810	47 576	48 865	92 385	1 158
33429	Other communications equipment manufacturing ....	1	11	2	e	D	D	D	D	D	D	D	D
334290	Other communications equipment manufacturing ..	1	11	2	e	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	7	24	9	1 666	89 316	1 160	2 326	66 154	147 143	73 920	258 120	D
33441	Semiconductor and other electronic component manufacturing .....	7	24	9	1 666	89 316	1 160	2 326	66 154	147 143	73 920	258 120	D
334412	Bare printed circuit board manufacturing .....	—	4	2	e	D	D	D	D	D	D	D	D
334413	Semiconductor and related device manufacturing .....	9	6	3	734	50 018	703	1 305	48 025	57 929	42 969	136 589	D
334419	Other electronic component manufacturing .....	9	4	2	e	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	—	41	18	5 331	322 665	1 233	2 477	55 392	885 672	207 583	1 117 170	24 232
33451	Navigational, measuring, electromedical, and control instruments manufacturing ...	—	41	18	5 331	322 665	1 233	2 477	55 392	885 672	207 583	1 117 170	24 232
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	—	10	7	h	D	D	D	D	D	D	D	D
3346	Manufacturing and reproducing magnetic and optical media.....	—	17	2	e	D	D	D	D	D	D	D	D
33461	Manufacturing and reproducing magnetic and optical media...	—	17	2	e	D	D	D	D	D	D	D	D
334612	Prerecorded compact disc (except software), tape, and record reproducing .....	—	11	2	e	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	—	29	11	2 142	136 725	999	2 050	55 705	214 646	267 060	485 089	15 692
3363	Motor vehicle parts manufacturing .....	—	11	5	f	D	D	D	D	D	D	D	D
33635	Motor vehicle transmission and power train parts manufacturing .....	—	3	1	e	D	D	D	D	D	D	D	D
336350	Motor vehicle transmission and power train parts manufacturing .....	—	3	1	e	D	D	D	D	D	D	D	D
3364	Aerospace product and parts manufacturing .....	—	8	5	g	D	D	D	D	D	D	D	D
33641	Aerospace product and parts manufacturing .....	—	8	5	g	D	D	D	D	D	D	D	D
336414	Guided missile and space vehicle manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
336415	Guided missile and space vehicle propulsion unit and propulsion unit parts manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>												
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area—Con.</b>												
	<b>Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division—Con.</b>												
337	Furniture and related product manufacturing .....	1	139	24	3 147	97 088	2 308	4 641	63 906	267 456	189 314	456 456	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	—	102	12	1 393	41 051	1 136	2 327	29 885	146 487	111 348	257 684	D
33711	Wood kitchen cabinet and countertop manufacturing ....	—	62	5	810	25 203	645	1 366	17 720	115 107	85 742	200 708	D
337110	Wood kitchen cabinet and countertop manufacturing ..	—	62	5	810	25 203	645	1 366	17 720	115 107	85 742	200 708	D
33712	Household and institutional furniture manufacturing .....	1	40	7	583	15 848	491	961	12 165	31 380	25 606	56 976	D
337121	Upholstered household furniture manufacturing ....	—	11	2	e	D	D	D	D	D	D	D	D
3372	Office furniture (including fixtures) manufacturing .....	3	33	10	1 330	41 208	831	1 675	24 674	72 571	39 982	112 182	2 517
33721	Office furniture (including fixtures) manufacturing .....	3	33	10	1 330	41 208	831	1 675	24 674	72 571	39 982	112 182	2 517
337212	Custom architectural woodwork and millwork manufacturing .....	1	17	7	751	21 549	408	865	12 493	37 856	18 144	55 661	D
337215	Showcase, partition, shelving, and locker manufacturing .....	6	8	3	518	17 263	375	714	10 508	29 108	19 093	48 169	D
3379	Other furniture related product manufacturing .....	—	4	2	424	14 829	341	639	9 347	48 398	37 984	86 590	D
33791	Mattress manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
337910	Mattress manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	2	211	28	2 310	80 801	1 551	3 045	42 125	165 253	95 353	260 783	D
3391	Medical equipment and supplies manufacturing .....	2	97	7	690	24 941	432	828	12 450	58 575	29 159	87 132	D
33911	Medical equipment and supplies manufacturing .....	2	97	7	690	24 941	432	828	12 450	58 575	29 159	87 132	D
339116	Dental laboratories .....	5	65	2	306	9 374	227	407	6 749	15 612	3 324	18 863	D
3399	Other miscellaneous manufacturing .....	2	114	21	1 620	55 860	1 119	2 217	29 675	106 678	66 194	173 651	D
33995	Sign manufacturing .....	3	60	16	1 079	39 497	716	1 425	20 577	71 752	40 644	113 397	D
339950	Sign manufacturing .....	3	60	16	1 079	39 497	716	1 425	20 577	71 752	40 644	113 397	D
33999	All other miscellaneous manufacturing .....	1	27	2	324	9 164	250	490	5 553	15 781	12 970	28 493	D
	<b>Winchester, VA-WV Metropolitan Statistical Area</b>												
31-33	Manufacturing .....	—	139	67	10 621	399 563	7 517	15 100	248 921	1 388 766	1 361 612	2 744 987	91 877
311	Food manufacturing .....	—	16	8	1 126	38 263	891	1 776	27 718	230 245	411 623	631 297	36 418
3114	Fruit and vegetable preserving and specialty food manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
31142	Fruit and vegetable canning, pickling, and drying .....	—	2	1	e	D	D	D	D	D	D	D	D
311421	Fruit and vegetable canning ..	—	2	1	e	D	D	D	D	D	D	D	D
3115	Dairy product manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
311514	Dry, condensed, and evaporated dairy product manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	—	6	2	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	—	16	9	f	D	D	D	D	D	D	D	D
3211	Sawmills and wood preservation ..	—	7	4	420	13 343	219	480	4 477	31 756	25 709	57 990	D
32111	Sawmills and wood preservation .....	—	7	4	420	13 343	219	480	4 477	31 756	25 709	57 990	D
321114	Wood preservation .....	—	2	2	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
<b>Winchester, VA-WV Metropolitan Statistical Area—Con.</b>													
323	Printing and related support activities .....	-	15	5	481	15 895	355	739	9 618	42 012	49 229	90 809	D
3231	Printing and related support activities .....	-	15	5	481	15 895	355	739	9 618	42 012	49 229	90 809	D
32311	Printing .....	-	13	4	e	D	D	D	D	D	D	D	2 965
323110	Commercial lithographic printing .....	-	6	3	368	13 256	270	572	7 970	36 901	46 653	83 127	2 857
325	Chemical manufacturing .....	-	5	2	e	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	16	12	3 112	125 203	2 016	4 067	72 137	511 052	231 993	745 907	20 551
3261	Plastics product manufacturing ..	-	13	10	2 992	120 599	1 956	3 940	70 075	499 241	221 708	723 818	20 073
32619	Other plastics product manufacturing .....	-	8	7	2 514	103 436	1 581	3 191	58 351	418 055	117 219	538 724	14 241
326199	All other plastics product manufacturing .....	-	8	7	2 514	103 436	1 581	3 191	58 351	418 055	117 219	538 724	14 241
327	Nonmetallic mineral product manufacturing .....	7	7	5	565	20 328	433	968	12 823	46 827	33 784	80 371	2 501
3273	Cement and concrete product manufacturing .....	7	6	5	f	D	D	D	D	D	D	D	D
32739	Other concrete product manufacturing .....	9	2	2	e	D	D	D	D	D	D	D	D
327390	Other concrete product manufacturing .....	9	2	2	e	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	-	17	8	846	27 758	663	1 253	20 799	113 009	168 712	279 846	3 440
3323	Architectural and structural metals manufacturing .....	-	7	5	429	11 877	340	610	9 525	56 264	67 724	124 137	D
333	Machinery manufacturing .....	-	9	4	374	13 589	245	475	6 260	35 382	29 284	64 989	519
334	Computer and electronic product manufacturing .....	-	3	2	e	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
334514	Totalizing fluid meter and counting device manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
3351	Electric lighting equipment manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
33511	Electric lamp bulb and part manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
335110	Electric lamp bulb and part manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	-	2	1	e	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	-	2	1	e	D	D	D	D	D	D	D	D
335311	Power, distribution, and specialty transformer manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	3	3	1 237	46 855	887	1 755	29 929	86 640	70 398	156 315	D
3363	Motor vehicle parts manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
33634	Motor vehicle brake system manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
336340	Motor vehicle brake system manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
33636	Motor vehicle seating and interior trim manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
336360	Motor vehicle seating and interior trim manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA—Con.</b>													
<b>Winchester, VA-WV Metropolitan Statistical Area—Con.</b>													
337	Furniture and related product manufacturing .....	-	10	3	e	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	8	2	e	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	5	1	e	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	-	3	1	e	D	D	D	D	D	D	D	D
<b>BLACKSBURG-CHRISTIANSBURG-RADFORD, VA METROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	-	148	67	13 090	468 037	10 279	21 096	317 619	1 276 446	1 560 300	2 816 123	110 618
313	Textile mills .....	-	5	5	734	17 702	601	1 374	12 606	41 073	112 723	151 744	D
3132	Fabric mills .....	-	2	2	e	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	-	1	1	e	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	-	1	1	e	D	D	D	D	D	D	D	D
315	Apparel manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
3151	Apparel knitting mills .....	-	1	1	e	D	D	D	D	D	D	D	D
31511	Hosiery and sock mills .....	-	1	1	e	D	D	D	D	D	D	D	D
315119	Other hosiery and sock mills .....	-	1	1	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	6	10	3	267	7 654	215	441	5 107	22 029	31 026	53 075	2 125
325	Chemical manufacturing .....	-	7	5	g	D	D	D	D	D	D	D	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
32522	Artificial and synthetic fibers and filaments manufacturing ..	-	1	1	g	D	D	D	D	D	D	D	D
325221	Cellulosic organic fiber manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
32592	Explosives manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
325920	Explosives manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	5	4	418	8 843	369	699	6 347	12 517	25 740	37 958	484
3261	Plastics product manufacturing ..	-	3	3	e	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing .....	-	6	3	433	20 745	327	737	14 012	66 758	30 716	96 621	12 842
331	Primary metal manufacturing .....	-	3	3	f	D	D	D	D	D	D	D	D
3315	Foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
331511	Iron foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	-	28	7	530	19 369	420	790	13 570	31 443	47 319	70 683	2 127
3329	Other fabricated metal product manufacturing .....	-	5	2	e	D	D	D	D	D	D	D	D
33299	All other fabricated metal product manufacturing .....	-	5	2	e	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	5	7	3	367	16 118	291	578	12 185	30 502	34 168	68 969	D
334	Computer and electronic product manufacturing .....	2	10	5	e	D	D	D	D	D	D	D	2 359

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>BLACKSBURG-CHRISTIANSBURG-RADFORD, VA METROPOLITAN STATISTICAL AREA—Con.</b>													
335	Electrical equipment, appliance, and component manufacturing .....	2	8	6	1 642	60 456	1 265	2 586	41 843	151 652	110 337	267 977	6 185
3351	Electric lighting equipment manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
33512	Lighting fixture manufacturing ..	—	2	2	f	D	D	D	D	D	D	D	D
335129	Other lighting equipment manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	4	5	3	g	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	4	5	3	g	D	D	D	D	D	D	D	D
335312	Motor and generator manufacturing .....	4	4	3	g	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	—	9	8	2 517	108 101	1 618	3 390	59 166	267 294	787 181	1 046 356	36 021
3361	Motor vehicle manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
33612	Heavy duty truck manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
336120	Heavy duty truck manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	—	6	5	f	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
336312	Gasoline engine and engine parts manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
33634	Motor vehicle brake system manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
336340	Motor vehicle brake system manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	—	16	6	1 692	39 432	1 523	3 019	31 994	124 916	68 628	191 156	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	—	14	6	g	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	—	9	6	1 673	39 100	1 512	3 003	31 778	124 628	68 285	190 516	D
337121	Upholstered household furniture manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	—	4	2	e	D	D	D	D	D	D	D	D
337129	Wood television, radio, and sewing machine cabinet manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	—	9	3	438	13 456	334	612	9 284	90 731	65 002	154 623	D
3399	Other miscellaneous manufacturing .....	—	7	2	e	D	D	D	D	D	D	D	D
33999	All other miscellaneous manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
339991	Gasket, packing, and sealing device manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
<b>BLUEFIELD, WV-VA MICROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	1	123	39	3 185	109 586	2 170	4 281	57 403	232 336	298 398	510 838	14 287
311	Food manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	1	12	5	481	12 437	416	903	8 900	30 032	49 796	76 061	1 081
3212	Veneer, plywood, and engineered wood product manufacturing .....	2	2	2	e	D	D	D	D	D	D	D	D
32121	Veneer, plywood, and engineered wood product manufacturing .....	2	2	2	e	D	D	D	D	D	D	D	D
321211	Hardwood veneer and plywood manufacturing .....	2	2	2	e	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	3	32	9	f	D	D	D	D	D	D	D	1 339

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>BLUEFIELD, WV-VA MICROPOLITAN STATISTICAL AREA—Con.</b>													
333	Machinery manufacturing .....	-	24	11	701	26 083	430	804	13 242	72 610	78 170	133 157	D
3331	Agriculture, construction, and mining machinery manufacturing .....	-	18	8	f	D	D	D	D	D	D	D	D
33313	Mining and oil and gas field machinery manufacturing ....	-	17	8	f	D	D	D	D	D	D	D	2 146
333131	Mining machinery and equipment manufacturing ..	-	17	8	f	D	D	D	D	D	D	D	2 146
334	Computer and electronic product manufacturing .....	5	5	2	e	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	4	2	2	e	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component manufacturing .....	4	2	2	e	D	D	D	D	D	D	D	D
<b>CHARLOTTESVILLE, VA METROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	1	165	37	6 541	288 002	3 455	7 138	105 017	782 132	499 996	1 292 730	32 674
321	Wood product manufacturing .....	5	23	5	343	10 092	272	585	6 859	29 041	32 314	61 189	1 214
334	Computer and electronic product manufacturing .....	-	14	8	2 315	93 659	1 118	2 472	37 986	356 470	127 323	489 809	16 726
3342	Communications equipment manufacturing .....	9	2	1	e	D	D	D	D	D	D	D	D
33421	Telephone apparatus manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
334210	Telephone apparatus manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	5	4	f	D	D	D	D	D	D	D	2 863
33451	Navigational, measuring, electromedical, and control instruments manufacturing ...	-	5	4	f	D	D	D	D	D	D	D	2 863
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3346	Manufacturing and reproducing magnetic and optical media.....	-	1	1	f	D	D	D	D	D	D	D	D
33461	Manufacturing and reproducing magnetic and optical media...	-	1	1	f	D	D	D	D	D	D	D	D
334612	Prerecorded compact disc (except software), tape, and record reproducing .....	-	1	1	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
335314	Relay and industrial control manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	-	19	2	431	11 074	375	711	8 885	37 988	25 735	63 745	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	16	1	e	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	5	1	e	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	-	5	1	e	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	3	19	3	386	14 375	255	510	8 187	37 222	46 431	83 933	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>DANVILLE, VA METROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	-	103	41	12 166	384 431	9 984	20 843	276 754	894 381	1 184 350	2 063 300	52 921
311	Food manufacturing .....	-	5	1	e	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	-	3	1	e	D	D	D	D	D	D	D	D
31182	Cookie, cracker, and pasta manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
311822	Flour mixes and dough manufacturing from purchased flour .....	-	1	1	e	D	D	D	D	D	D	D	D
312	Beverage and tobacco product manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
3122	Tobacco manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
31221	Tobacco stemming and redrying .....	-	2	2	f	D	D	D	D	D	D	D	D
312210	Tobacco stemming and redrying .....	-	2	2	f	D	D	D	D	D	D	D	D
313	Textile mills .....	-	3	2	h	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	1	1	h	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	-	1	1	h	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	-	1	1	h	D	D	D	D	D	D	D	D
3133	Textile and fabric finishing and fabric coating mills .....	-	1	1	f	D	D	D	D	D	D	D	D
31331	Textile and fabric finishing mills .....	-	1	1	f	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills .....	-	1	1	f	D	D	D	D	D	D	D	D
315	Apparel manufacturing .....	-	3	3	f	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing .....	-	3	3	f	D	D	D	D	D	D	D	D
31529	Other cut and sew apparel manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
315291	Infants' cut and sew apparel manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	-	21	10	969	24 295	761	1 434	14 952	63 145	100 026	161 896	2 173
3212	Veneer, plywood, and engineered wood product manufacturing .....	-	6	5	587	15 320	436	855	8 157	42 988	73 041	115 534	1 521
32121	Veneer, plywood, and engineered wood product manufacturing .....	-	6	5	587	15 320	436	855	8 157	42 988	73 041	115 534	1 521
322	Paper manufacturing .....	-	3	3	386	11 917	320	626	8 122	53 463	60 690	114 724	1 150
3222	Converted paper product manufacturing .....	-	3	3	386	11 917	320	626	8 122	53 463	60 690	114 724	1 150
323	Printing and related support activities .....	-	10	3	335	8 902	250	499	6 515	17 921	11 869	29 850	643
3231	Printing and related support activities .....	-	10	3	335	8 902	250	499	6 515	17 921	11 869	29 850	643
32311	Printing .....	-	10	3	335	8 902	250	499	6 515	17 921	11 869	29 850	643
326	Plastics and rubber products manufacturing .....	-	4	1	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
32621	Tire manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
326211	Tire manufacturing (except retreading) .....	-	1	1	g	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing .....	-	5	3	494	22 044	396	820	16 093	79 840	34 251	114 877	9 860
3272	Glass and glass product manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
32721	Glass and glass product manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	-	4	1	e	D	D	D	D	D	D	D	D
3359	Other electrical equipment and component manufacturing .....	-	2	1	e	D	D	D	D	D	D	D	D
33592	Communication and energy wire and cable manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
335929	Other communication and energy wire manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	1	10	3	295	6 151	229	394	3 886	12 925	10 831	23 791	131

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>HARRISONBURG, VA METROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	-	137	48	13 573	422 624	10 776	21 144	292 541	3 048 848	2 403 308	5 517 441	214 971
311	Food manufacturing .....	-	20	13	6 075	129 149	5 070	9 747	103 156	663 985	918 587	1 638 579	43 763
3116	Animal slaughtering and processing .....	-	10	8	5 737	116 676	4 817	9 211	94 308	588 810	689 572	1 339 582	D
31161	Animal slaughtering and processing .....	-	10	8	5 737	116 676	4 817	9 211	94 308	588 810	689 572	1 339 582	D
311615	Poultry processing .....	-	6	6	5 570	112 354	4 750	9 052	92 194	569 416	678 657	1 309 881	D
312	Beverage and tobacco product manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
3121	Beverage manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
31212	Breweries .....	-	1	1	e	D	D	D	D	D	D	D	D
312120	Breweries .....	-	1	1	e	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	-	16	6	1 784	53 876	1 464	2 535	39 216	143 675	76 829	220 655	6 661
3231	Printing and related support activities .....	-	16	6	1 784	53 876	1 464	2 535	39 216	143 675	76 829	220 655	6 661
32311	Printing .....	-	16	6	1 784	53 876	1 464	2 535	39 216	143 675	76 829	220 655	6 661
323117	Books printing .....	-	2	2	g	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	-	7	2	g	D	D	D	D	D	D	D	D
3254	Pharmaceutical and medicine manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
325411	Medicinal and botanical manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	7	3	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	5	2	f	D	D	D	D	D	D	D	D
32611	Plastics packaging materials and unlaminated film and sheet manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
32616	Plastics bottle manufacturing ..	-	1	1	e	D	D	D	D	D	D	D	D
326160	Plastics bottle manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing .....	-	7	3	505	15 647	402	892	10 412	41 072	22 935	63 724	2 329
3273	Cement and concrete product manufacturing .....	-	6	3	e	D	D	D	D	D	D	D	D
32733	Concrete pipe, brick, and block manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
327332	Concrete pipe manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
331	Primary metal manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
3313	Alumina and aluminum production and processing .....	-	1	1	e	D	D	D	D	D	D	D	D
33131	Alumina and aluminum production and processing ..	-	1	1	e	D	D	D	D	D	D	D	D
331316	Aluminum extruded product manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	1	4	2	e	D	D	D	D	D	D	D	499
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	1	4	2	e	D	D	D	D	D	D	D	499
33451	Navigational, measuring, electromedical, and control instruments manufacturing ..	1	4	2	e	D	D	D	D	D	D	D	499
336	Transportation equipment manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>HARRISONBURG, VA METROPOLITAN STATISTICAL AREA—Con.</b>													
337	Furniture and related product manufacturing .....	-	18	3	287	7 079	247	430	5 769	19 998	6 886	26 868	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	16	2	e	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	8	2	251	6 227	218	375	5 160	18 620	6 288	24 895	D
<b>LYNCHBURG, VA METROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	1	323	107	18 533	742 351	13 359	28 173	446 955	2 416 892	1 592 817	3 873 126	138 965
311	Food manufacturing .....	1	19	8	1 562	56 936	1 031	2 179	37 055	361 471	220 098	552 597	D
3115	Dairy product manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
311514	Dry, condensed, and evaporated dairy product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	-	7	1	e	D	D	D	D	D	D	D	D
31181	Bread and bakery product manufacturing .....	-	7	1	e	D	D	D	D	D	D	D	D
313	Textile mills .....	-	4	3	g	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	3	3	g	D	D	D	D	D	D	D	3 442
31321	Broadwoven fabric mills .....	-	3	3	g	D	D	D	D	D	D	D	3 442
313210	Broadwoven fabric mills .....	-	3	3	g	D	D	D	D	D	D	D	3 442
321	Wood product manufacturing .....	2	40	6	568	15 980	477	951	12 628	46 013	91 271	137 287	2 322
322	Paper manufacturing .....	-	7	5	g	D	D	D	D	D	D	D	D
3221	Pulp, paper, and paperboard mills .....	1	3	3	f	D	D	D	D	D	D	D	D
32213	Paperboard mills .....	1	3	3	f	D	D	D	D	D	D	D	D
322130	Paperboard mills .....	1	3	3	f	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing .....	-	4	2	e	D	D	D	D	D	D	D	D
32221	Paperboard container manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
322211	Corrugated and solid fiber box manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	-	26	7	1 540	52 786	1 255	2 671	38 586	119 254	82 343	198 939	7 669
3231	Printing and related support activities .....	-	26	7	1 540	52 786	1 255	2 671	38 586	119 254	82 343	198 939	7 669
32311	Printing .....	-	26	7	1 540	52 786	1 255	2 671	38 586	119 254	82 343	198 939	7 669
323110	Commercial lithographic printing .....	-	14	5	f	D	D	D	D	D	D	D	D
323111	Commercial gravure printing .....	-	2	2	f	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	2	11	7	3 078	189 145	1 479	3 517	74 479	504 490	106 451	539 834	27 577
3251	Basic chemical manufacturing .....	2	2	2	g	D	D	D	D	D	D	D	D
32518	Other basic inorganic chemical manufacturing .....	2	2	2	g	D	D	D	D	D	D	D	D
325188	All other basic inorganic chemical manufacturing .....	2	2	2	g	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, and toilet preparation manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
32562	Toilet preparation manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
325620	Toilet preparation manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	12	5	889	31 271	680	1 361	22 268	167 215	101 700	259 178	4 578
3261	Plastics product manufacturing .....	-	10	4	f	D	D	D	D	D	D	D	D
32611	Plastics packaging materials and unlaminated film and sheet manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
326111	Plastics bag manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing .....	3	18	6	295	10 022	236	488	6 721	28 441	18 255	46 723	7 579
331	Primary metal manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3315	Foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
331511	Iron foundries .....	-	2	2	f	D	D	D	D	D	D	D	D

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**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>LYNCHBURG, VA METROPOLITAN STATISTICAL AREA—Con.</b>												
332	Fabricated metal product manufacturing .....	2	62	21	1 953	78 386	1 466	3 125	51 932	340 057	189 960	531 473	14 185
3323	Architectural and structural metals manufacturing .....	4	14	6	452	17 283	332	732	11 519	72 400	62 757	135 012	D
33231	Plate work and fabricated structural product manufacturing .....	4	8	5	381	14 579	291	652	10 348	67 976	59 533	127 378	1 583
332312	Fabricated structural metal manufacturing .....	4	8	5	381	14 579	291	652	10 348	67 976	59 533	127 378	1 583
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	3	26	7	e	D	D	D	D	D	D	D	D
33271	Machine shops .....	5	24	5	322	13 079	234	471	8 483	23 513	8 607	32 290	6 624
332710	Machine shops .....	5	24	5	322	13 079	234	471	8 483	23 513	8 607	32 290	6 624
3329	Other fabricated metal product manufacturing .....	2	12	5	840	36 258	630	1 336	23 163	213 273	107 577	321 749	3 763
33291	Metal valve manufacturing ....	9	1	1	e	D	D	D	D	D	D	D	D
332911	Industrial valve manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
33299	All other fabricated metal product manufacturing .....	—	11	4	e	D	D	D	D	D	D	D	D
332991	Ball and roller bearing manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	1	28	14	1 488	59 488	949	1 935	30 286	124 495	97 975	224 318	2 503
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	—	5	3	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	—	5	3	f	D	D	D	D	D	D	D	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing .....	1	14	8	665	27 975	378	713	11 427	45 465	49 465	97 244	700
33392	Material handling equipment manufacturing .....	1	8	5	437	20 765	222	512	8 127	33 586	43 176	78 311	585
333922	Conveyor and conveying equipment manufacturing ..	1	7	5	e	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	—	16	7	1 026	29 839	826	1 740	18 762	141 221	173 293	304 892	4 749
3342	Communications equipment manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
33422	Radio and television broadcasting and wireless communications equipment manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
334220	Radio and television broadcasting and wireless communications equipment manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	6	6	4	e	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component manufacturing .....	6	6	4	e	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	—	11	2	362	13 912	313	672	9 751	38 485	34 049	72 252	D
3363	Motor vehicle parts manufacturing .....	—	4	2	e	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	—	3	1	e	D	D	D	D	D	D	D	D
336312	Gasoline engine and engine parts manufacturing .....	—	3	1	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
		E <sup>1</sup>	Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)					Wages (\$1,000)
<b>LYNCHBURG, VA METROPOLITAN STATISTICAL AREA—Con.</b>													
337	Furniture and related product manufacturing .....	2	27	8	1 448	41 490	1 159	2 223	28 744	79 930	53 739	134 334	1 899
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	1	23	7	1 297	37 086	1 051	2 012	26 480	72 462	50 533	123 564	D
33712	Household and institutional furniture manufacturing .....	—	13	6	1 147	33 028	930	1 799	23 717	63 999	44 630	109 159	1 476
337121	Upholstered household furniture manufacturing ....	—	1	1	e	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	—	8	2	f	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	8	23	3	764	22 119	622	1 362	15 410	51 332	24 524	75 776	D
3399	Other miscellaneous manufacturing .....	8	16	3	748	21 526	609	1 337	15 032	50 122	24 030	74 067	D
33999	All other miscellaneous manufacturing .....	9	8	3	700	20 376	571	1 289	14 445	47 841	22 270	70 046	1 146
339991	Gasket, packing, and sealing device manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D
<b>MARTINSVILLE, VA MICROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	2	105	47	9 795	259 287	8 168	16 279	187 378	641 914	760 707	1 433 145	33 769
313	Textile mills .....	6	6	4	1 248	29 741	1 101	2 318	24 742	103 400	80 889	186 035	D
3132	Fabric mills .....	8	3	2	f	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	9	1	1	f	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	9	1	1	f	D	D	D	D	D	D	D	D
314	Textile product mills .....	—	1	1	f	D	D	D	D	D	D	D	D
3141	Textile furnishings mills .....	—	1	1	f	D	D	D	D	D	D	D	D
31412	Curtain and linen mills .....	—	1	1	f	D	D	D	D	D	D	D	D
314129	Other household textile product mills .....	—	1	1	f	D	D	D	D	D	D	D	D
315	Apparel manufacturing .....	4	4	2	f	D	D	D	D	D	D	D	D
3151	Apparel knitting mills .....	—	2	1	f	D	D	D	D	D	D	D	D
31519	Other apparel knitting mills ....	—	2	1	f	D	D	D	D	D	D	D	D
315191	Outerwear knitting mills .....	—	2	1	f	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing .....	9	2	1	e	D	D	D	D	D	D	D	D
31523	Women's and girls' cut and sew apparel manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
315232	Women's and girls' cut and sew blouse and shirt manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	7	12	6	881	27 106	693	1 387	18 266	55 951	54 966	110 630	5 477
3219	Other wood product manufacturing .....	8	8	3	642	19 924	485	964	12 745	36 874	39 689	78 110	1 497
32199	All other wood product manufacturing .....	8	4	3	602	19 017	454	908	12 148	33 396	37 542	72 320	D
321992	Prefabricated wood building manufacturing .....	9	3	2	f	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	3	7	7	641	25 314	520	1 114	17 434	53 228	92 203	144 992	3 395
3222	Converted paper product manufacturing .....	3	7	7	641	25 314	520	1 114	17 434	53 228	92 203	144 992	3 395
32221	Paperboard container manufacturing .....	3	6	6	f	D	D	D	D	D	D	D	D
322211	Corrugated and solid fiber box manufacturing .....	3	6	6	f	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	—	11	4	262	7 174	217	359	4 124	9 660	22 204	31 887	1 441
3231	Printing and related support activities .....	—	11	4	262	7 174	217	359	4 124	9 660	22 204	31 887	1 441
32311	Printing .....	—	11	4	262	7 174	217	359	4 124	9 660	22 204	31 887	1 441
326	Plastics and rubber products manufacturing .....	—	6	5	735	23 696	599	1 192	16 959	100 959	75 328	180 406	7 186
3261	Plastics product manufacturing ..	—	5	5	f	D	D	D	D	D	D	D	7 186
32611	Plastics packaging materials and unlaminated film and sheet manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>MARTINSVILLE, VA MICROPOLITAN STATISTICAL AREA—Con.</b>													
327	Nonmetallic mineral product manufacturing .....	-	7	4	422	11 105	315	598	6 141	38 836	48 182	81 906	D
3272	Glass and glass product manufacturing .....	-	3	3	e	D	D	D	D	D	D	D	D
32721	Glass and glass product manufacturing .....	-	3	3	e	D	D	D	D	D	D	D	D
327215	Glass product manufacturing made of purchased glass ..	-	3	3	e	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	-	18	9	3 230	76 511	2 839	5 457	59 112	147 524	156 995	320 579	4 432
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	15	8	h	D	D	D	D	D	D	D	4 268
33712	Household and institutional furniture manufacturing .....	-	10	8	2 957	71 173	2 581	5 039	54 413	146 261	152 261	300 678	4 262
337122	Nonupholstered wood household furniture manufacturing .....	-	5	4	2 050	48 926	1 831	3 477	39 054	97 102	105 188	204 709	D
337127	Institutional furniture manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3372	Office furniture (including fixtures) manufacturing .....	-	3	1	e	D	D	D	D	D	D	D	164
33721	Office furniture (including fixtures) manufacturing .....	-	3	1	e	D	D	D	D	D	D	D	164
<b>RICHMOND, VA METROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	-	1 064	356	49 685	2 123 986	35 583	71 925	1 299 527	16 784 211	7 545 272	24 314 240	508 666
311	Food manufacturing .....	1	55	22	4 206	125 909	3 509	6 634	95 031	734 055	466 825	1 201 194	42 134
3116	Animal slaughtering and processing .....	2	5	3	1 863	42 320	1 715	3 300	35 413	142 420	84 864	226 363	3 312
31161	Animal slaughtering and processing .....	2	5	3	1 863	42 320	1 715	3 300	35 413	142 420	84 864	226 363	3 312
311615	Poultry processing .....	-	2	2	g	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	-	31	11	1 618	60 562	1 254	2 280	44 074	523 468	206 454	730 282	D
31181	Bread and bakery product manufacturing .....	1	28	8	f	D	D	D	D	D	D	D	D
311812	Commercial bakeries .....	-	8	5	365	9 328	234	387	4 469	15 947	11 153	27 057	D
31182	Cookie, cracker, and pasta manufacturing .....	-	3	3	g	D	D	D	D	D	D	D	D
311821	Cookie and cracker manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3119	Other food manufacturing .....	3	9	4	e	D	D	D	D	D	D	D	712
31199	All other food manufacturing .....	-	4	2	264	5 372	205	345	3 895	12 010	18 038	30 041	286
312	Beverage and tobacco product manufacturing .....	-	15	11	i	D	D	D	D	D	D	D	D
3122	Tobacco manufacturing .....	-	8	7	i	D	D	D	D	D	D	D	D
31221	Tobacco stemming and redrying .....	-	2	2	e	D	D	D	D	D	D	D	D
312210	Tobacco stemming and redrying .....	-	2	2	e	D	D	D	D	D	D	D	D
31222	Tobacco product manufacturing .....	-	6	5	i	D	D	D	D	D	D	D	D
312221	Cigarette manufacturing .....	-	3	3	i	D	D	D	D	D	D	D	D
312229	Other tobacco product manufacturing .....	-	3	2	e	D	D	D	D	D	D	D	D
313	Textile mills .....	-	8	3	g	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	6	2	g	D	D	D	D	D	D	D	D
31323	Nonwoven fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
313230	Nonwoven fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
314	Textile product mills .....	2	28	6	370	7 818	307	540	4 950	15 994	14 684	30 336	304
315	Apparel manufacturing .....	4	16	5	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>RICHMOND, VA METROPOLITAN STATISTICAL AREA—Con.</b>													
321	Wood product manufacturing .....	2	92	37	2 209	59 441	1 824	3 629	41 888	121 500	184 565	307 083	9 148
3211	Sawmills and wood preservation .	2	33	14	670	18 786	569	1 173	13 885	37 520	69 397	107 033	4 308
32111	Sawmills and wood preservation .....	2	33	14	670	18 786	569	1 173	13 885	37 520	69 397	107 033	4 308
321113	Sawmills .....	2	32	14	f	D	D	D	D	D	D	D	D
3212	Veneer, plywood, and engineered wood product manufacturing ....	—	11	7	501	13 224	390	694	9 007	30 609	33 806	64 203	1 963
32121	Veneer, plywood, and engineered wood product manufacturing .....	—	11	7	501	13 224	390	694	9 007	30 609	33 806	64 203	1 963
3219	Other wood product manufacturing .....	4	48	16	1 038	27 431	865	1 762	18 996	53 371	81 362	135 847	2 877
32191	Millwork .....	4	24	8	548	15 282	447	940	10 469	30 597	38 959	69 800	1 377
321911	Wood window and door manufacturing .....	6	7	5	334	9 455	273	602	6 325	18 863	21 908	40 760	879
32192	Wood container and pallet manufacturing .....	4	15	8	436	10 663	375	739	7 398	17 990	37 872	56 330	991
321920	Wood container and pallet manufacturing .....	4	15	8	436	10 663	375	739	7 398	17 990	37 872	56 330	991
322	Paper manufacturing .....	—	50	34	5 158	242 526	4 060	8 691	168 392	758 973	796 159	1 557 851	26 443
3221	Pulp, paper, and paperboard mills .....	—	6	6	1 450	90 888	1 132	2 595	66 569	421 421	290 064	708 736	10 279
32212	Paper mills .....	1	2	e	D	D	D	D	D	D	D	D	D
32213	Paperboard mills .....	—	4	g	D	D	D	D	D	D	D	D	D
322130	Paperboard mills .....	—	4	g	D	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing .....	—	44	28	3 708	151 638	2 928	6 096	101 823	337 552	506 095	849 115	16 164
32221	Paperboard container manufacturing .....	1	26	15	1 902	81 002	1 484	3 170	54 350	171 727	289 845	460 824	9 631
322211	Corrugated and solid fiber box manufacturing .....	2	17	10	1 065	45 506	812	1 825	28 678	107 367	178 593	286 349	8 030
322212	Folding paperboard box manufacturing .....	—	4	3	f	D	D	D	D	D	D	D	D
32222	Paper bag and coated and treated paper manufacturing .	—	9	8	g	D	D	D	D	D	D	D	D
322224	Uncoated paper and multiwall bag manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
322225	Laminated aluminum foil manufacturing for flexible packaging uses .....	—	1	1	e	D	D	D	D	D	D	D	D
32223	Stationery product manufacturing .....	2	4	2	e	D	D	D	D	D	D	D	D
32229	Other converted paper product manufacturing .....	—	5	3	458	20 275	339	661	12 275	46 845	55 197	103 150	D
322299	All other converted paper product manufacturing .....	—	4	3	e	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	2	149	43	3 733	140 942	2 997	5 751	105 741	356 510	238 181	595 701	15 157
3231	Printing and related support activities .....	2	149	43	3 733	140 942	2 997	5 751	105 741	356 510	238 181	595 701	15 157
32311	Printing .....	2	131	34	3 286	123 154	2 652	5 073	92 095	316 994	230 168	548 546	12 893
323110	Commercial lithographic printing .....	1	55	16	1 623	63 301	1 314	2 509	46 878	113 270	81 958	196 111	7 418
323111	Commercial gravure printing .....	2	4	4	575	25 419	499	949	22 597	69 843	70 835	140 494	1 828
323118	Blankbook, looseleaf binders, and devices manufacturing .	1	3	3	e	D	D	D	D	D	D	D	641
32312	Support activities for printing...	1	18	9	447	17 788	345	678	13 646	39 516	8 013	47 155	2 264
323122	Prepress services .....	—	12	6	e	D	D	D	D	D	D	D	2 020
325	Chemical manufacturing .....	—	53	25	5 381	264 213	3 438	7 144	147 940	1 230 079	1 055 642	2 258 718	116 086
3251	Basic chemical manufacturing ...	—	13	7	1 572	90 301	1 099	2 356	60 671	481 526	443 699	916 795	33 570
32519	Other basic organic chemical manufacturing .....	—	4	3	1 425	82 443	1 042	2 237	57 181	434 645	425 680	851 882	32 253
325199	All other basic organic chemical manufacturing ....	—	4	3	1 425	82 443	1 042	2 237	57 181	434 645	425 680	851 882	32 253
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	—	4	2	g	D	D	D	D	D	D	D	D
32521	Resin and synthetic rubber manufacturing .....	—	3	1	g	D	D	D	D	D	D	D	D
325211	Plastics material and resin manufacturing .....	—	2	1	g	D	D	D	D	D	D	D	D
3254	Pharmaceutical and medicine manufacturing .....	—	3	2	g	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing .....	—	3	2	g	D	D	D	D	D	D	D	D
325411	Medicinal and botanical manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>RICHMOND, VA METROPOLITAN STATISTICAL AREA—Con.</b>												
325	Chemical manufacturing—Con.												
3256	Soap, cleaning compound, and toilet preparation manufacturing . . . . .	—	4	1	e	D	D	D	D	D	D	D	D
32562	Toilet preparation manufacturing . . . . .	—	2	1	e	D	D	D	D	D	D	D	D
325620	Toilet preparation manufacturing . . . . .	—	2	1	e	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing . . . . .	1	18	9	543	24 722	313	666	10 285	50 074	36 177	86 253	12 810
32591	Printing ink manufacturing . . . . .	1	11	5	254	13 924	121	258	4 513	27 203	27 391	54 934	D
325910	Printing ink manufacturing . . . . .	1	11	5	254	13 924	121	258	4 513	27 203	27 391	54 934	D
32599	All other chemical product and preparation manufacturing . . . . .	2	7	4	289	10 798	192	408	5 772	22 871	8 786	31 319	D
325991	Custom compounding of purchased resins . . . . .	2	3	3	262	9 739	182	395	5 463	20 199	3 008	22 869	D
326	Plastics and rubber products manufacturing . . . . .	—	32	23	4 254	140 859	3 484	6 321	100 667	551 427	422 749	971 071	51 082
3261	Plastics product manufacturing . . . . .	—	29	22	h	D	D	D	D	D	D	D	D
32611	Plastics packaging materials and unlaminated film and sheet manufacturing . . . . .	—	8	5	1 754	64 431	1 404	2 339	44 047	234 143	216 210	447 884	D
326113	Unlaminated plastics film and sheet (except packaging) manufacturing . . . . .	—	6	3	g	D	D	D	D	D	D	D	D
32615	Urethane and other foam product (except polystyrene) manufacturing . . . . .	—	3	3	e	D	D	D	D	D	D	D	D
326150	Urethane and other foam product (except polystyrene) manufacturing . . . . .	—	3	3	e	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing . . . . .	—	14	12	1 339	40 692	1 119	2 411	30 424	144 617	97 790	241 517	8 316
326199	All other plastics product manufacturing . . . . .	—	12	10	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing . . . . .	—	3	1	f	D	D	D	D	D	D	D	D
32629	Other rubber product manufacturing . . . . .	—	2	1	f	D	D	D	D	D	D	D	D
326299	All other rubber product manufacturing . . . . .	—	2	1	f	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing . . . . .	1	54	23	1 392	47 847	997	1 969	31 888	231 417	97 569	330 357	11 280
3273	Cement and concrete product manufacturing . . . . .	1	38	17	1 041	34 060	776	1 519	22 700	127 313	70 988	197 584	9 566
32732	Ready-mix concrete manufacturing . . . . .	—	22	7	335	11 887	273	580	9 449	36 134	37 052	73 148	5 388
327320	Ready-mix concrete manufacturing . . . . .	—	22	7	335	11 887	273	580	9 449	36 134	37 052	73 148	5 388
32739	Other concrete product manufacturing . . . . .	3	8	5	464	16 032	331	635	9 005	59 247	22 111	81 164	2 516
327390	Other concrete product manufacturing . . . . .	3	8	5	464	16 032	331	635	9 005	59 247	22 111	81 164	2 516
3279	Other nonmetallic mineral product manufacturing . . . . .	—	10	5	295	11 757	174	358	7 614	98 920	20 410	121 509	1 499
331	Primary metal manufacturing . . . . .	—	11	7	1 820	79 882	1 456	3 246	59 664	191 437	603 940	791 178	14 734
3311	Iron and steel mills and ferroalloy manufacturing . . . . .	—	1	1	e	D	D	D	D	D	D	D	D
33111	Iron and steel mills and ferroalloy manufacturing . . . . .	—	1	1	e	D	D	D	D	D	D	D	D
331111	Iron and steel mills . . . . .	—	1	1	e	D	D	D	D	D	D	D	D
3313	Alumina and aluminum production and processing . . . . .	—	5	4	g	D	D	D	D	D	D	D	D
33131	Alumina and aluminum production and processing . . . . .	—	5	4	g	D	D	D	D	D	D	D	D
331315	Aluminum sheet, plate, and foil manufacturing . . . . .	—	2	2	f	D	D	D	D	D	D	D	D
331316	Aluminum extruded product manufacturing . . . . .	—	2	1	e	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing . . . . .	2	146	37	2 912	117 006	2 176	4 379	78 923	254 769	234 660	492 338	43 608
3323	Architectural and structural metals manufacturing . . . . .	2	42	12	814	30 764	555	1 154	18 611	89 994	60 567	151 904	2 489
33231	Plate work and fabricated structural product manufacturing . . . . .	—	21	6	455	17 562	294	639	10 496	64 931	44 840	110 845	1 219
332312	Fabricated structural metal manufacturing . . . . .	1	14	3	283	11 708	172	378	6 062	44 751	18 450	64 002	545
33232	Ornamental and architectural metal products manufacturing . . . . .	6	21	6	359	13 202	261	515	8 115	25 063	15 727	41 059	1 270

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>RICHMOND, VA METROPOLITAN STATISTICAL AREA—Con.</b>													
332	Fabricated metal product manufacturing—Con.												
3324	Boiler, tank, and shipping container manufacturing .....	3	7	5	513	24 420	366	717	16 590	47 224	103 286	150 876	D
33241	Power boiler and heat exchanger manufacturing ....	1	2	2	e	D	D	D	D	D	D	D	D
332410	Power boiler and heat exchanger manufacturing ..	1	2	2	e	D	D	D	D	D	D	D	D
33242	Metal tank (heavy gauge) manufacturing .....	6	5	3	e	D	D	D	D	D	D	D	D
332420	Metal tank (heavy gauge) manufacturing .....	6	5	3	e	D	D	D	D	D	D	D	D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	1	61	9	829	34 116	660	1 309	24 730	61 883	27 996	90 103	5 983
33271	Machine shops .....	2	57	7	739	31 491	588	1 148	22 887	56 377	26 267	82 959	5 804
332710	Machine shops .....	2	57	7	739	31 491	588	1 148	22 887	56 377	26 267	82 959	5 804
3329	Other fabricated metal product manufacturing .....	1	12	4	412	16 463	338	703	12 050	30 115	29 088	59 806	D
33299	All other fabricated metal product manufacturing .....	1	12	4	412	16 463	338	703	12 050	30 115	29 088	59 806	D
332991	Ball and roller bearing manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	4	70	21	2 287	96 442	1 487	3 019	49 032	246 062	197 074	442 486	7 882
3332	Industrial machinery manufacturing .....	1	21	8	557	26 895	310	569	11 043	57 681	39 129	95 837	3 161
33329	Other industrial machinery manufacturing .....	1	20	8	f	D	D	D	D	D	D	D	D
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	8	9	3	806	31 310	622	1 401	22 065	87 649	71 317	159 250	2 531
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	8	9	3	806	31 310	622	1 401	22 065	87 649	71 317	159 250	2 531
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	8	4	3	771	30 041	596	1 348	21 407	84 769	69 050	154 103	2 458
3339	Other general purpose machinery manufacturing .....	2	22	8	736	30 563	434	790	12 036	71 147	65 857	137 214	1 668
33399	All other general purpose machinery manufacturing ....	3	14	6	549	24 443	304	591	8 771	60 827	57 984	118 581	1 541
333993	Packaging machinery manufacturing .....	—	5	3	301	14 713	143	284	5 069	35 968	35 521	71 959	D
334	Computer and electronic product manufacturing .....	—	16	3	g	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	—	7	2	g	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component manufacturing .....	—	7	2	g	D	D	D	D	D	D	D	D
334413	Semiconductor and related device manufacturing .....	—	2	1	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	1	19	8	585	23 422	396	825	10 311	49 147	43 814	89 177	1 722
3359	Other electrical equipment and component manufacturing .....	—	5	4	e	D	D	D	D	D	D	D	D
33599	All other electrical equipment and component manufacturing .....	1	4	3	336	14 559	226	465	6 362	29 151	29 045	54 738	1 400
335999	All other miscellaneous electrical equipment and component manufacturing ..	1	4	3	336	14 559	226	465	6 362	29 151	29 045	54 738	1 400
336	Transportation equipment manufacturing .....	7	26	6	508	16 629	421	848	12 523	57 782	118 199	178 288	2 560
3363	Motor vehicle parts manufacturing .....	3	17	4	340	11 300	283	565	8 433	29 321	32 249	63 752	1 236

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
		E <sup>1</sup>	Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)					Wages (\$1,000)
<b>RICHMOND, VA METROPOLITAN STATISTICAL AREA—Con.</b>													
337	Furniture and related product manufacturing .....	3	109	21	2 052	61 114	1 680	3 298	42 558	175 680	124 226	299 391	5 782
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	2	86	8	641	16 495	513	941	10 895	33 445	25 818	59 291	D
33711	Wood kitchen cabinet and countertop manufacturing ....	3	51	2	315	8 977	248	464	6 124	17 073	11 497	28 509	678
337110	Wood kitchen cabinet and countertop manufacturing ..	3	51	2	315	8 977	248	464	6 124	17 073	11 497	28 509	678
33712	Household and institutional furniture manufacturing .....	1	35	6	326	7 518	265	477	4 771	16 372	14 321	30 782	D
3372	Office furniture (including fixtures) manufacturing .....	2	14	7	947	29 387	820	1 684	22 507	98 420	67 167	165 166	2 075
33721	Office furniture (including fixtures) manufacturing .....	2	14	7	947	29 387	820	1 684	22 507	98 420	67 167	165 166	2 075
337214	Office furniture (except wood) manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
337215	Showcase, partition, shelving, and locker manufacturing .....	8	5	2	e	D	D	D	D	D	D	D	D
3379	Other furniture related product manufacturing .....	8	9	6	464	15 232	347	673	9 156	43 815	31 241	74 934	D
33791	Mattress manufacturing .....	8	5	4	e	D	D	D	D	D	D	D	2 148
337910	Mattress manufacturing .....	8	5	4	e	D	D	D	D	D	D	D	2 148
339	Miscellaneous manufacturing .....	4	107	20	2 187	78 817	1 290	2 607	36 126	244 922	176 829	417 677	10 211
3391	Medical equipment and supplies manufacturing .....	8	37	6	859	31 540	495	1 016	13 773	110 429	111 177	221 166	6 252
33911	Medical equipment and supplies manufacturing .....	8	37	6	859	31 540	495	1 016	13 773	110 429	111 177	221 166	6 252
339113	Surgical appliance and supplies manufacturing ....	9	6	2	e	D	D	D	D	D	D	D	D
339115	Ophthalmic goods manufacturing .....	7	4	2	e	D	D	D	D	D	D	D	D
3399	Other miscellaneous manufacturing .....	-	70	14	1 328	47 277	795	1 591	22 353	134 493	65 652	196 511	3 959
33992	Sporting and athletic goods manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
339920	Sporting and athletic goods manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
33995	Sign manufacturing .....	1	38	5	361	12 424	231	458	6 653	24 285	14 647	38 649	1 694
339950	Sign manufacturing .....	1	38	5	361	12 424	231	458	6 653	24 285	14 647	38 649	1 694
33999	All other miscellaneous manufacturing .....	-	23	6	e	D	D	D	D	D	D	D	D
<b>ROANOKE, VA METROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	-	350	122	17 484	614 189	12 273	23 596	367 047	1 957 109	1 583 565	3 564 598	79 690
311	Food manufacturing .....	3	17	6	1 068	31 911	779	1 763	20 446	156 712	125 913	280 100	7 375
3115	Dairy product manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) manufacturing .....	9	1	1	e	D	D	D	D	D	D	D	D
311511	Fluid milk manufacturing ....	9	1	1	e	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	3	1	e	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	3	1	e	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses .....	-	2	1	e	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	-	8	2	e	D	D	D	D	D	D	D	D
31181	Bread and bakery product manufacturing .....	-	8	2	e	D	D	D	D	D	D	D	D
311812	Commercial bakeries .....	-	3	2	e	D	D	D	D	D	D	D	D
312	Beverage and tobacco product manufacturing .....	-	3	2	e	D	D	D	D	D	D	D	D
3121	Beverage manufacturing .....	-	3	2	e	D	D	D	D	D	D	D	D
31211	Soft drink and ice manufacturing .....	-	3	2	e	D	D	D	D	D	D	D	D
312111	Soft drink manufacturing ....	-	2	2	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>ROANOKE, VA METROPOLITAN STATISTICAL AREA—Con.</b>													
313	Textile mills .....	-	4	4	f	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	2	2	e	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	-	1	1	e	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	-	1	1	e	D	D	D	D	D	D	D	D
3133	Textile and fabric finishing and fabric coating mills .....	-	2	2	e	D	D	D	D	D	D	D	D
31331	Textile and fabric finishing mills .....	-	2	2	e	D	D	D	D	D	D	D	D
313312	Textile and fabric finishing (except broadwoven fabric) mills .....	-	2	2	e	D	D	D	D	D	D	D	D
315	Apparel manufacturing .....	-	10	6	654	13 462	490	876	8 825	45 451	68 663	116 286	429
3152	Cut and sew apparel manufacturing .....	-	9	5	f	D	D	D	D	D	D	D	D
31522	Men's and boys' cut and sew apparel manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
315225	Men's and boys' cut and sew work clothing manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	-	19	11	1 238	37 839	886	1 711	22 461	70 531	125 328	195 556	5 510
3211	Sawmills and wood preservation .....	-	8	4	294	9 130	246	510	6 723	24 319	68 700	93 012	1 328
32111	Sawmills and wood preservation .....	-	8	4	294	9 130	246	510	6 723	24 319	68 700	93 012	1 328
3212	Veneer, plywood, and engineered wood product manufacturing .....	-	3	3	322	10 227	183	391	4 921	17 514	20 095	37 563	1 230
32121	Veneer, plywood, and engineered wood product manufacturing .....	-	3	3	322	10 227	183	391	4 921	17 514	20 095	37 563	1 230
3219	Other wood product manufacturing .....	-	8	4	622	18 482	457	810	10 817	28 698	36 533	64 981	2 952
32199	All other wood product manufacturing .....	-	6	3	f	D	D	D	D	D	D	D	D
321992	Prefabricated wood building manufacturing .....	-	3	2	327	9 340	232	437	5 839	19 751	15 109	34 554	2 673
322	Paper manufacturing .....	2	6	5	339	13 434	249	445	7 389	30 884	32 600	61 732	D
3222	Converted paper product manufacturing .....	2	6	5	339	13 434	249	445	7 389	30 884	32 600	61 732	D
32221	Paperboard container manufacturing .....	1	4	4	e	D	D	D	D	D	D	D	868
323	Printing and related support activities .....	2	35	3	e	D	D	D	D	D	D	D	650
3231	Printing and related support activities .....	2	35	3	e	D	D	D	D	D	D	D	650
32311	Printing .....	2	33	3	e	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	1	18	6	548	26 334	356	770	12 436	104 092	85 878	193 950	8 475
3256	Soap, cleaning compound, and toilet preparation manufacturing .....	-	4	2	272	9 016	216	470	4 949	44 828	12 748	57 484	D
326	Plastics and rubber products manufacturing .....	-	16	9	3 226	108 445	2 407	4 273	75 598	246 617	159 807	406 647	11 857
3261	Plastics product manufacturing .....	-	11	6	g	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	9	5	1 796	50 611	1 263	2 542	32 856	109 015	70 402	179 498	D
326199	All other plastics product manufacturing .....	-	9	5	1 796	50 611	1 263	2 542	32 856	109 015	70 402	179 498	D
3262	Rubber product manufacturing .....	-	5	3	g	D	D	D	D	D	D	D	D
32621	Tire manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326211	Tire manufacturing (except retreading) .....	-	1	1	g	D	D	D	D	D	D	D	D
32629	Other rubber product manufacturing .....	-	3	2	e	D	D	D	D	D	D	D	D
326299	All other rubber product manufacturing .....	-	3	2	e	D	D	D	D	D	D	D	D

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<b>ROANOKE, VA METROPOLITAN STATISTICAL AREA—Con.</b>													
327	Nonmetallic mineral product manufacturing .....	—	23	9	1 003	34 397	736	1 487	20 754	122 455	108 806	229 908	10 964
3271	Clay product and refractory manufacturing .....	4	2	2	e	D	D	D	D	D	D	D	D
32712	Clay building material and refractories manufacturing ....	4	2	2	e	D	D	D	D	D	D	D	D
327121	Brick and structural clay tile manufacturing .....	4	2	2	e	D	D	D	D	D	D	D	D
3272	Glass and glass product manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
32721	Glass and glass product manufacturing .....	—	3	2	e	D	D	D	D	D	D	D	D
327215	Glass product manufacturing made of purchased glass ..	—	3	2	e	D	D	D	D	D	D	D	D
3273	Cement and concrete product manufacturing .....	—	18	5	481	17 280	318	652	9 688	67 988	71 775	138 382	D
331	Primary metal manufacturing .....	1	6	5	901	41 548	722	1 480	31 524	111 191	118 783	227 955	2 647
3311	Iron and steel mills and ferroalloy manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
33111	Iron and steel mills and ferroalloy manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
331111	Iron and steel mills .....	—	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	1	62	17	1 426	52 114	1 013	1 862	30 217	127 435	75 153	204 024	2 899
3323	Architectural and structural metals manufacturing .....	1	14	6	484	17 624	362	722	11 940	42 071	38 107	81 067	725
33231	Plate work and fabricated structural product manufacturing .....	1	8	4	378	14 339	267	544	9 189	30 016	33 178	64 235	620
332312	Fabricated structural metal manufacturing .....	—	6	4	e	D	D	D	D	D	D	D	D
3325	Hardware manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
33251	Hardware manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
332510	Hardware manufacturing ....	—	1	1	e	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	1	19	9	915	29 023	521	1 064	15 177	74 048	51 960	126 077	3 074
3332	Industrial machinery manufacturing .....	—	3	3	503	12 188	259	555	6 132	28 420	21 620	50 447	485
33322	Plastics and rubber industry machinery manufacturing ....	—	1	1	e	D	D	D	D	D	D	D	D
333220	Plastics and rubber industry machinery manufacturing ..	—	1	1	e	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	—	10	4	1 168	51 028	658	1 373	20 763	109 240	88 181	208 190	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	—	3	1	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing ...	—	3	1	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	—	10	4	g	D	D	D	D	D	D	D	6 529
3353	Electrical equipment manufacturing .....	—	6	2	g	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	—	6	2	g	D	D	D	D	D	D	D	D
335314	Relay and industrial control manufacturing .....	—	2	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	1	11	5	490	19 621	343	661	12 168	67 080	82 770	147 689	4 389
3363	Motor vehicle parts manufacturing .....	1	6	3	356	14 833	269	527	10 158	58 740	74 473	130 503	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>ROANOKE, VA METROPOLITAN STATISTICAL AREA—Con.</b>													
337	Furniture and related product manufacturing .....	-	29	6	626	16 725	537	1 074	13 039	40 165	19 622	59 934	1 714
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	26	4	561	15 022	489	987	11 969	36 633	18 385	55 204	D
33712	Household and institutional furniture manufacturing .....	-	10	1	343	7 906	325	634	7 369	23 815	10 973	34 432	D
337122	Nonupholstered wood household furniture manufacturing .....	-	5	1	e	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	1	44	10	861	27 468	620	1 183	15 240	58 572	58 013	116 007	D
3399	Other miscellaneous manufacturing .....	-	25	7	657	20 645	478	900	11 724	35 866	49 841	85 154	D
33999	All other miscellaneous manufacturing .....	3	9	3	293	7 756	247	452	5 341	12 458	8 924	21 828	D
339999	All other miscellaneous manufacturing .....	2	7	3	e	D	D	D	D	D	D	D	590
<b>STAUNTON-WAYNESBORO, VA MICROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	-	119	45	8 114	320 748	6 358	12 719	220 094	1 240 137	846 274	2 083 711	47 819
311	Food manufacturing .....	-	6	1	f	D	D	D	D	D	D	D	D
3113	Sugar and confectionery product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
31133	Confectionery manufacturing from purchased chocolate .....	-	1	1	f	D	D	D	D	D	D	D	D
311330	Confectionery manufacturing from purchased chocolate .....	-	1	1	f	D	D	D	D	D	D	D	D
313	Textile mills .....	-	5	4	806	24 271	726	1 373	19 815	63 510	81 058	143 153	1 013
3132	Fabric mills .....	-	2	2	f	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	-	1	1	e	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	-	1	1	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	1	7	3	325	8 975	271	575	6 043	10 239	30 614	39 497	633
325	Chemical manufacturing .....	-	5	4	g	D	D	D	D	D	D	D	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
32522	Artificial and synthetic fibers and filaments manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	6	2	f	D	D	D	D	D	D	D	1 774
3261	Plastics product manufacturing .....	-	6	2	f	D	D	D	D	D	D	D	1 774
32619	Other plastics product manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
331	Primary metal manufacturing .....	1	4	3	e	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	-	34	13	1 859	67 151	1 414	2 374	38 839	169 960	125 505	297 487	11 725
3322	Cutlery and handtool manufacturing .....	-	3	3	f	D	D	D	D	D	D	D	D
33221	Cutlery and handtool manufacturing .....	-	3	3	f	D	D	D	D	D	D	D	D
332212	Hand and edge tool manufacturing .....	-	2	2	e	D	D	D	D	D	D	D	D
3329	Other fabricated metal product manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
33291	Metal valve manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
332919	Other metal valve and pipe fitting manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>STAUNTON-WAYNESBORO, VA MICROPOLITAN STATISTICAL AREA—Con.</b>													
333	Machinery manufacturing .....	1	9	4	806	31 673	622	1 206	21 270	75 546	79 032	154 000	2 011
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	—	6	2	f	D	D	D	D	D	D	D	D
3391	Medical equipment and supplies manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
33911	Medical equipment and supplies manufacturing .....	—	2	1	e	D	D	D	D	D	D	D	D
339113	Surgical appliance and supplies manufacturing .....	—	1	1	e	D	D	D	D	D	D	D	D
<b>VIRGINIA BEACH-NORFOLK-NEWPORT NEWS, VA-NC METROPOLITAN STATISTICAL AREA</b>													
31-33	Manufacturing .....	—	1 054	296	58 008	2 348 321	41 469	83 611	1 490 395	8 196 363	8 090 404	16 238 009	531 255
311	Food manufacturing .....	2	100	33	8 170	261 185	6 200	13 616	181 092	1 024 961	1 250 589	2 268 782	47 010
3115	Dairy product manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
311511	Fluid milk manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	—	15	8	i	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	—	15	8	i	D	D	D	D	D	D	D	D
311611	Animal (except poultry) slaughtering .....	—	3	2	h	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses .....	1	9	6	712	20 872	589	1 361	16 888	135 991	37 797	174 883	D
3117	Seafood product preparation and packaging .....	5	12	5	565	17 377	431	742	8 962	47 984	116 178	164 412	3 229
31171	Seafood product preparation and packaging .....	5	12	5	565	17 377	431	742	8 962	47 984	116 178	164 412	3 229
311712	Fresh and frozen seafood processing .....	5	10	5	f	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	1	47	10	g	D	D	D	D	D	D	D	D
31181	Bread and bakery product manufacturing .....	1	45	9	f	D	D	D	D	D	D	D	1 925
311811	Retail bakeries .....	1	28	2	e	D	D	D	D	D	D	D	D
311812	Commercial bakeries .....	—	16	7	640	13 063	317	546	5 571	31 841	17 073	48 428	1 456
3119	Other food manufacturing .....	3	13	6	1 048	41 649	770	1 428	25 524	451 501	407 492	861 808	D
31191	Snack food manufacturing .....	—	4	1	e	D	D	D	D	D	D	D	D
311911	Roasted nuts and peanut butter manufacturing .....	—	4	1	e	D	D	D	D	D	D	D	D
31192	Coffee and tea manufacturing .....	6	3	3	f	D	D	D	D	D	D	D	D
311920	Coffee and tea manufacturing .....	6	3	3	f	D	D	D	D	D	D	D	D
312	Beverage and tobacco product manufacturing .....	—	8	4	g	D	D	D	D	D	D	D	D
3121	Beverage manufacturing .....	—	8	4	g	D	D	D	D	D	D	D	D
31211	Soft drink and ice manufacturing .....	—	5	3	293	11 617	96	187	2 452	S	113 791	55 881	3 710
31212	Breweries .....	—	2	1	f	D	D	D	D	D	D	D	D
312120	Breweries .....	—	2	1	f	D	D	D	D	D	D	D	D
314	Textile product mills .....	4	42	4	334	6 939	244	428	3 968	12 566	10 358	23 627	302
315	Apparel manufacturing .....	4	27	4	251	6 167	208	398	4 207	14 334	13 660	27 562	531

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text.]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>VIRGINIA BEACH-NORFOLK-NEWPORT NEWS, VA-NC METROPOLITAN STATISTICAL AREA—Con.</b>												
321	Wood product manufacturing . . . . .	—	38	14	859	24 115	641	1 143	14 704	91 269	76 522	165 608	6 278
3211	Sawmills and wood preservation . . . . .	—	9	6	308	8 430	250	490	5 983	27 624	35 702	61 202	1 836
32111	Sawmills and wood preservation . . . . .	—	9	6	308	8 430	250	490	5 983	27 624	35 702	61 202	1 836
3212	Veneer, plywood, and engineered wood product manufacturing . . . . .	—	5	4	314	9 655	217	370	5 444	49 695	27 942	77 939	3 720
32121	Veneer, plywood, and engineered wood product manufacturing . . . . .	—	5	4	314	9 655	217	370	5 444	49 695	27 942	77 939	3 720
322	Paper manufacturing . . . . .	4	11	8	777	30 229	594	1 315	21 357	77 797	116 383	191 985	7 769
3222	Converted paper product manufacturing . . . . .	4	10	7	f	D	D	D	D	D	D	D	D
32221	Paperboard container manufacturing . . . . .	2	6	4	336	13 397	247	542	8 650	31 463	61 030	90 794	D
32229	Other converted paper product manufacturing . . . . .	2	2	2	e	D	D	D	D	D	D	D	D
322299	All other converted paper product manufacturing . . . . .	2	2	2	e	D	D	D	D	D	D	D	D
323	Printing and related support activities . . . . .	5	129	22	1 870	55 136	1 382	2 585	33 945	224 832	85 049	310 712	8 627
3231	Printing and related support activities . . . . .	5	129	22	1 870	55 136	1 382	2 585	33 945	224 832	85 049	310 712	8 627
32311	Printing . . . . .	5	122	22	1 827	54 164	1 352	2 539	33 302	223 119	84 609	308 549	8 596
323110	Commercial lithographic printing . . . . .	6	65	13	1 133	35 565	845	1 519	22 193	187 603	59 004	247 039	6 690
323113	Commercial screen printing . . . . .	2	18	6	316	7 728	248	520	4 404	11 972	9 568	21 789	410
324	Petroleum and coal products manufacturing . . . . .	—	7	1	e	D	D	D	D	D	D	D	D
3241	Petroleum and coal products manufacturing . . . . .	—	7	1	e	D	D	D	D	D	D	D	D
32411	Petroleum refineries . . . . .	—	1	1	e	D	D	D	D	D	D	D	D
324110	Petroleum refineries . . . . .	—	1	1	e	D	D	D	D	D	D	D	D
325	Chemical manufacturing . . . . .	—	24	9	1 030	48 623	633	1 334	26 413	140 629	233 757	375 064	7 146
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing . . . . .	—	2	2	e	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing . . . . .	—	2	1	e	D	D	D	D	D	D	D	D
32599	All other chemical product and preparation manufacturing . . . . .	—	2	1	e	D	D	D	D	D	D	D	D
325998	All other miscellaneous chemical product and preparation manufacturing . . . . .	—	1	1	e	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing . . . . .	1	31	18	1 480	49 822	1 128	2 419	28 672	194 602	153 435	347 469	9 454
3261	Plastics product manufacturing . . . . .	1	23	14	1 208	40 948	950	2 030	23 902	169 494	116 746	285 571	8 710
32619	Other plastics product manufacturing . . . . .	—	17	10	986	34 152	761	1 660	18 911	151 537	93 628	244 536	7 452
326199	All other plastics product manufacturing . . . . .	—	13	9	f	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing . . . . .	—	8	4	272	8 874	178	389	4 770	25 108	36 689	61 898	744
327	Nonmetallic mineral product manufacturing . . . . .	1	64	24	1 825	63 325	1 385	2 878	41 799	198 699	174 494	375 184	17 331
3272	Glass and glass product manufacturing . . . . .	—	6	2	e	D	D	D	D	D	D	D	D
32721	Glass and glass product manufacturing . . . . .	—	6	2	e	D	D	D	D	D	D	D	D
3273	Cement and concrete product manufacturing . . . . .	2	43	14	763	22 645	607	1 296	16 615	79 803	72 180	150 877	9 570
32732	Ready-mix concrete manufacturing . . . . .	1	26	5	356	10 380	285	585	7 985	41 672	52 026	93 704	6 658
327320	Ready-mix concrete manufacturing . . . . .	1	26	5	356	10 380	285	585	7 985	41 672	52 026	93 704	6 658
3279	Other nonmetallic mineral product manufacturing . . . . .	2	10	6	443	15 717	313	592	9 126	47 473	26 302	73 393	1 907
32791	Abrasive product manufacturing . . . . .	2	3	3	309	11 826	209	374	6 410	37 347	17 282	54 293	664
327910	Abrasive product manufacturing . . . . .	2	3	3	309	11 826	209	374	6 410	37 347	17 282	54 293	664

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>VIRGINIA BEACH-NORFOLK-NEWPORT NEWS, VA-NC METROPOLITAN STATISTICAL AREA—Con.</b>												
331	Primary metal manufacturing .....	-	7	3	1 277	54 112	971	1 871	34 452	137 263	94 070	241 217	D
3315	Foundries .....	-	3	2	g	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries .....	-	3	2	g	D	D	D	D	D	D	D	D
331512	Steel investment foundries ..	-	1	1	g	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	1	160	40	2 846	103 183	2 100	4 216	65 668	251 210	236 242	481 282	10 227
3323	Architectural and structural metals manufacturing .....	1	59	21	1 253	44 766	870	1 748	24 887	90 001	70 811	160 944	4 917
33231	Plate work and fabricated structural product manufacturing .....	2	26	13	736	25 702	510	1 067	14 725	54 741	43 050	97 846	1 937
332312	Fabricated structural metal manufacturing .....	2	18	8	448	15 311	293	586	7 460	36 455	34 959	71 683	1 580
332313	Plate work manufacturing ...	3	6	4	e	D	D	D	D	D	D	D	D
33232	Ornamental and architectural metal products manufacturing .....	1	33	8	517	19 064	360	681	10 162	35 260	27 761	63 098	2 980
332322	Sheet metal work manufacturing .....	-	27	8	e	D	D	D	D	D	D	D	2 935
3324	Boiler, tank, and shipping container manufacturing .....	-	5	4	370	17 767	298	613	13 253	82 099	129 522	207 435	2 117
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	-	3	2	e	D	D	D	D	D	D	D	D
332431	Metal can manufacturing ...	-	2	2	e	D	D	D	D	D	D	D	D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	1	62	8	631	21 768	466	968	14 978	38 325	15 442	52 540	1 120
33271	Machine shops .....	2	59	7	573	19 963	421	882	13 704	35 675	14 040	48 495	1 073
332710	Machine shops .....	2	59	7	573	19 963	421	882	13 704	35 675	14 040	48 495	1 073
333	Machinery manufacturing .....	-	62	27	4 192	148 613	2 694	5 363	76 851	431 445	517 648	959 953	29 199
3331	Agriculture, construction, and mining machinery manufacturing .....	-	6	2	g	D	D	D	D	D	D	D	D
33311	Agricultural implement manufacturing .....	-	4	2	g	D	D	D	D	D	D	D	D
333112	Lawn and garden tractor and home lawn and garden equipment manufacturing ..	-	1	1	g	D	D	D	D	D	D	D	D
3332	Industrial machinery manufacturing .....	1	5	2	254	10 161	182	333	6 534	17 639	16 099	34 394	D
33329	Other industrial machinery manufacturing .....	1	5	2	254	10 161	182	333	6 534	17 639	16 099	34 394	D
3333	Commercial and service industry machinery manufacturing .....	5	10	4	948	22 800	647	1 257	11 126	44 074	29 128	72 276	1 552
33331	Commercial and service industry machinery manufacturing .....	5	10	4	948	22 800	647	1 257	11 126	44 074	29 128	72 276	1 552
333319	Other commercial and service industry machinery manufacturing .....	9	5	1	f	D	D	D	D	D	D	D	D
3335	Metalworking machinery manufacturing .....	-	14	6	520	20 211	298	598	9 797	50 358	19 123	72 125	D
33351	Metalworking machinery manufacturing .....	-	14	6	520	20 211	298	598	9 797	50 358	19 123	72 125	D
3336	Engine, turbine, and power transmission equipment manufacturing .....	-	5	2	e	D	D	D	D	D	D	D	765
33361	Engine, turbine, and power transmission equipment manufacturing .....	-	5	2	e	D	D	D	D	D	D	D	765
3339	Other general purpose machinery manufacturing .....	1	17	9	809	30 558	435	860	13 328	89 103	74 258	168 758	6 616
33391	Pump and compressor manufacturing .....	-	9	5	f	D	D	D	D	D	D	D	D
333911	Pump and pumping equipment manufacturing ..	-	3	1	e	D	D	D	D	D	D	D	D
333912	Air and gas compressor manufacturing .....	-	6	4	e	D	D	D	D	D	D	D	D

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**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
	<b>VIRGINIA BEACH-NORFOLK-NEWPORT NEWS, VA-NC METROPOLITAN STATISTICAL AREA—Con.</b>												
334	Computer and electronic product manufacturing .....	-	40	17	2 944	91 316	2 200	4 041	49 254	504 352	848 939	1 359 058	53 308
3341	Computer and peripheral equipment manufacturing .....	-	7	4	g	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing ....	-	7	4	g	D	D	D	D	D	D	D	D
334111	Electronic computer manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment manufacturing ..	-	4	2	g	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	4	12	7	f	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component manufacturing .....	4	12	7	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	3	18	5	426	19 016	219	447	6 458	56 779	17 902	74 103	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing ...	3	18	5	426	19 016	219	447	6 458	56 779	17 902	74 103	D
334513	Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables .....	1	5	3	e	D	D	D	D	D	D	D	305
335	Electrical equipment, appliance, and component manufacturing .....	2	11	7	411	14 959	300	529	8 241	46 109	53 193	92 549	977
336	Transportation equipment manufacturing .....	-	55	26	24 532	1 208 334	16 930	34 190	786 572	3 821 006	3 129 245	6 945 160	120 850
3361	Motor vehicle manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
33611	Automobile and light duty motor vehicle manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
336112	Light truck and utility vehicle manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	-	11	6	g	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
336312	Gasoline engine and engine parts manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
33632	Motor vehicle electrical and electronic equipment manufacturing .....	-	3	2	e	D	D	D	D	D	D	D	D
336321	Vehicular lighting equipment manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
3365	Railroad rolling stock manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
33651	Railroad rolling stock manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
336510	Railroad rolling stock manufacturing .....	-	1	1	e	D	D	D	D	D	D	D	D
3366	Ship and boat building .....	-	37	17	20 302	927 582	13 628	26 447	571 643	2 600 298	550 096	3 150 394	40 703
33661	Ship and boat building .....	-	37	17	20 302	927 582	13 628	26 447	571 643	2 600 298	550 096	3 150 394	40 703
336611	Ship building and repairing ..	-	28	15	20 045	920 102	13 419	26 041	566 183	2 591 674	539 297	3 130 971	40 305
336612	Boat building .....	-	9	2	257	7 480	209	406	5 460	8 624	10 799	19 423	398
337	Furniture and related product manufacturing .....	4	107	13	1 044	30 305	798	1 349	18 895	61 285	44 487	105 936	1 885
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	3	88	8	761	20 291	577	1 029	12 639	37 994	25 901	64 114	D
33711	Wood kitchen cabinet and countertop manufacturing ....	3	64	7	616	17 527	458	836	10 515	29 458	19 602	49 279	711
337110	Wood kitchen cabinet and countertop manufacturing ..	3	64	7	616	17 527	458	836	10 515	29 458	19 602	49 279	711
339	Miscellaneous manufacturing .....	3	121	20	2 355	62 131	1 814	3 383	38 479	153 039	80 469	226 925	D
3391	Medical equipment and supplies manufacturing .....	3	50	8	916	28 146	685	1 258	17 354	74 126	25 362	93 588	D
33911	Medical equipment and supplies manufacturing .....	3	50	8	916	28 146	685	1 258	17 354	74 126	25 362	93 588	D
339115	Ophthalmic goods manufacturing .....	5	2	2	e	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 2. Industry Statistics for Metropolitan and Micropolitan Statistical Areas: 2002—Con.**

[Includes data for industry groups and industries with 250 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For definitions of CSAs, MeSAs, MISAs, and MDs, see Appendix E. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
		E <sup>1</sup>	Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)					Wages (\$1,000)
	<b>VIRGINIA BEACH-NORFOLK-NEWPORT NEWS, VA-NC METROPOLITAN STATISTICAL AREA—Con.</b>												
339	Miscellaneous manufacturing—Con.												
3399	Other miscellaneous manufacturing .....	3	71	12	1 439	33 985	1 129	2 125	21 125	78 913	55 107	133 337	D
33995	Sign manufacturing .....	2	31	5	374	11 863	231	401	5 801	18 303	17 196	34 436	D
339950	Sign manufacturing .....	2	31	5	374	11 863	231	401	5 801	18 303	17 196	34 436	D
33999	All other miscellaneous manufacturing .....	—	13	3	602	12 602	496	960	8 742	34 288	24 436	58 798	D
339991	Gasket, packing, and sealing device manufacturing .....	—	2	2	e	D	D	D	D	D	D	D	D

<sup>1</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Industries with 250 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 250 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: 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.

<sup>4</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

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

**Table 3. Industry Statistics for Counties: 2002**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>ACCOMACK</b>													
31-33	Manufacturing .....	-	36	11	3 187	66 034	2 938	5 939	55 028	426 183	175 756	601 018	10 896
311	Food manufacturing .....	-	15	5	2 885	58 576	2 703	5 506	49 841	406 642	164 336	569 944	10 067
3116	Animal slaughtering and processing .....	-	4	3	h	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	4	3	h	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	3	2	h	D	D	D	D	D	D	D	D
<b>ALBEMARLE</b>													
31-33	Manufacturing .....	3	46	14	1 399	47 568	915	1 838	25 179	106 304	146 872	252 193	D
<b>ALLEGHANY</b>													
31-33	Manufacturing .....	2	13	6	791	21 652	631	1 228	14 544	63 158	67 233	120 288	5 422
<b>AMHERST</b>													
31-33	Manufacturing .....	1	41	12	1 689	71 391	1 358	2 850	55 757	272 244	214 856	478 009	8 079
<b>APPOMATTOX</b>													
31-33	Manufacturing .....	-	18	2	678	20 947	552	1 020	15 196	39 374	24 689	64 153	919
337	Furniture and related product manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>ARLINGTON</b>													
31-33	Manufacturing .....	2	54	8	585	16 490	398	684	10 247	35 868	27 451	63 311	1 044
<b>AUGUSTA</b>													
31-33	Manufacturing .....	-	52	25	4 631	174 441	3 791	7 250	124 813	765 880	542 981	1 305 651	22 717
311	Food manufacturing .....	-	4	1	f	D	D	D	D	D	D	D	D
3113	Sugar and confectionery product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
31133	Confectionery manufacturing from purchased chocolate .....	-	1	1	f	D	D	D	D	D	D	D	D
311330	Confectionery manufacturing from purchased chocolate .....	-	1	1	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	-	16	8	1 618	59 591	1 242	2 108	34 792	153 826	119 014	275 030	10 903
3322	Cutlery and handtool manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
33221	Cutlery and handtool manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3329	Other fabricated metal product manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
33291	Metal valve manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
332919	Other metal valve and pipe fitting manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	1	4	3	f	D	D	D	D	D	D	D	D
<b>BEDFORD</b>													
31-33	Manufacturing .....	1	68	16	1 677	68 025	1 076	2 108	32 983	275 241	209 942	485 632	23 773
<b>BOTETOURT</b>													
31-33	Manufacturing .....	-	28	18	1 878	60 939	1 123	2 013	30 888	143 746	231 709	373 305	15 951
<b>BRUNSWICK</b>													
31-33	Manufacturing .....	1	19	7	527	13 989	416	813	9 652	39 913	31 176	73 840	3 427

See footnotes at end of table.

**Table 3. Industry Statistics for Counties: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>CAMPBELL</b>													
31-33	Manufacturing .....	-	57	18	3 618	122 588	3 033	6 629	92 472	578 642	389 457	922 542	52 415
311	Food manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D
3115	Dairy product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
311514	Dry, condensed, and evaporated dairy product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
313	Textile mills .....	-	3	2	g	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
<b>CARROLL</b>													
31-33	Manufacturing .....	-	27	10	1 429	34 995	1 266	2 578	29 280	110 008	94 829	202 230	8 146
313	Textile mills .....	-	4	4	814	21 683	723	1 513	18 469	81 420	71 707	150 941	D
<b>CHARLOTTE</b>													
31-33	Manufacturing .....	1	15	9	999	26 478	880	1 766	20 934	51 920	87 775	138 832	2 900
313	Textile mills .....	-	1	1	f	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>CHESTERFIELD</b>													
31-33	Manufacturing .....	-	176	53	9 674	431 871	7 254	15 597	288 364	1 484 825	1 629 766	3 125 438	113 108
311	Food manufacturing .....	2	12	5	690	19 564	546	1 019	14 021	85 454	131 102	216 555	D
312	Beverage and tobacco product manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3122	Tobacco manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
313	Textile mills .....	-	3	2	g	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
31323	Nonwoven fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
313230	Nonwoven fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	-	8	5	725	27 829	627	1 259	21 881	59 002	62 361	125 000	1 663
3222	Converted paper product manufacturing .....	-	8	5	725	27 829	627	1 259	21 881	59 002	62 361	125 000	1 663
325	Chemical manufacturing .....	-	10	4	g	D	D	D	D	D	D	D	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
32521	Resin and synthetic rubber manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
325211	Plastics material and resin manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	2	2	f	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	6	18	4	890	36 623	607	1 331	22 044	98 857	89 484	188 334	D
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	9	2	1	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	9	2	1	f	D	D	D	D	D	D	D	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	2	26	8	516	17 878	374	782	10 299	48 627	29 037	75 944	1 701

See footnotes at end of table.

**Table 3. Industry Statistics for Counties: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
		E <sup>1</sup>	Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)					Wages (\$1,000)
<b>CLARKE</b>													
31-33	Manufacturing .....	-	16	5	1 201	39 218	940	1 946	27 716	158 250	99 879	257 003	D
323	Printing and related support activities .....	-	2	1	f	D	D	D	D	D	D	D	D
3231	Printing and related support activities .....	-	2	1	f	D	D	D	D	D	D	D	D
32311	Printing .....	-	1	1	f	D	D	D	D	D	D	D	D
323117	Books printing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>CULPEPER</b>													
31-33	Manufacturing .....	-	33	15	1 406	49 419	1 074	1 900	32 452	176 829	179 508	359 106	11 462
<b>DINWIDDIE</b>													
31-33	Manufacturing .....	-	10	5	f	D	D	D	D	D	D	D	3 803
<b>ESSEX</b>													
31-33	Manufacturing .....	4	15	5	727	18 755	580	1 214	13 602	26 086	42 354	68 519	1 091
<b>FAIRFAX</b>													
31-33	Manufacturing .....	2	437	89	10 525	468 279	5 677	11 377	198 977	1 017 563	672 662	1 699 740	46 223
311	Food manufacturing .....	-	40	10	836	24 355	422	783	11 054	82 901	100 338	182 159	1 649
3118	Bakeries and tortilla manufacturing .....	3	33	9	f	D	D	D	D	D	D	D	D
31181	Bread and bakery product manufacturing .....	3	33	9	f	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	1	123	21	3 070	123 963	2 201	4 291	79 001	207 252	131 215	338 577	16 914
3231	Printing and related support activities .....	1	123	21	3 070	123 963	2 201	4 291	79 001	207 252	131 215	338 577	16 914
32311	Printing .....	1	114	19	2 969	118 556	2 163	4 210	77 077	201 439	130 269	331 834	16 671
323110	Commercial lithographic printing .....	-	53	14	2 299	100 067	1 679	3 264	66 204	159 218	114 751	273 784	14 238
334	Computer and electronic product manufacturing .....	3	47	17	3 262	189 349	846	1 798	38 033	402 380	208 876	617 365	13 051
3342	Communications equipment manufacturing .....	4	13	7	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	1	16	8	2 319	143 615	565	1 193	28 030	285 968	115 781	404 335	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing ...	1	16	8	2 319	143 615	565	1 193	28 030	285 968	115 781	404 335	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	1	4	3	g	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	4	73	7	781	27 996	486	917	13 306	55 566	28 412	85 344	3 568
<b>FAUQUIER</b>													
31-33	Manufacturing .....	1	47	9	871	32 080	617	1 091	18 639	56 358	64 921	120 842	2 424
<b>FRANKLIN</b>													
31-33	Manufacturing .....	-	55	16	3 099	96 448	2 242	4 599	60 436	198 894	234 022	427 304	9 069
321	Wood product manufacturing .....	-	14	7	793	24 462	580	1 093	14 870	41 576	90 790	132 031	D
3219	Other wood product manufacturing .....	-	7	4	f	D	D	D	D	D	D	D	D
32199	All other wood product manufacturing .....	-	5	3	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	2	1	g	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 3. Industry Statistics for Counties: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>FREDERICK</b>													
31-33	Manufacturing .....	-	76	40	h	D	D	D	D	D	D	D	D
311	Food manufacturing .....	-	8	5	591	19 907	423	874	12 921	137 946	321 128	448 578	D
321	Wood product manufacturing .....	-	9	6	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	1	10	6	530	16 188	409	682	11 064	61 586	71 724	133 670	D
336	Transportation equipment manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33636	Motor vehicle seating and interior trim manufacturing ....	-	1	1	f	D	D	D	D	D	D	D	D
336360	Motor vehicle seating and interior trim manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D
<b>GILES</b>													
31-33	Manufacturing .....	-	13	7	1 443	61 211	1 118	2 428	41 246	228 391	161 417	381 542	15 015
325	Chemical manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
32522	Artificial and synthetic fibers and filaments manufacturing ..	-	1	1	g	D	D	D	D	D	D	D	D
325221	Cellulosic organic fiber manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>GRAYSON</b>													
31-33	Manufacturing .....	3	17	8	737	27 249	541	1 228	14 982	135 184	63 505	196 604	16 203
<b>GREENE</b>													
31-33	Manufacturing .....	-	10	1	f	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
3346	Manufacturing and reproducing magnetic and optical media .....	-	1	1	f	D	D	D	D	D	D	D	D
33461	Manufacturing and reproducing magnetic and optical media ...	-	1	1	f	D	D	D	D	D	D	D	D
334612	Prerecorded compact disc (except software), tape, and record reproducing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>GREENSVILLE</b>													
31-33	Manufacturing .....	-	7	4	1 506	36 508	1 413	2 725	32 476	173 251	102 402	274 968	7 172
311	Food manufacturing .....	-	3	3	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	3	3	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	3	3	g	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	2	2	g	D	D	D	D	D	D	D	D
<b>HALIFAX</b>													
31-33	Manufacturing .....	-	42	16	3 254	91 739	2 716	4 755	64 076	320 981	243 110	570 302	26 944
326	Plastics and rubber products manufacturing .....	-	4	2	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	4	2	f	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	-	5	2	f	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	5	2	f	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
<b>HANOVER</b>													
31-33	Manufacturing .....	3	143	42	3 107	114 056	2 054	3 999	62 123	353 736	315 393	668 117	14 710
339	Miscellaneous manufacturing .....	-	10	3	f	D	D	D	D	D	D	D	D
3399	Other miscellaneous manufacturing .....	-	8	3	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 3. Industry Statistics for Counties: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>HENRICO</b>													
31-33	Manufacturing .....	1	209	75	9 800	357 660	7 235	14 293	223 853	1 713 776	1 169 489	2 899 674	103 770
311	Food manufacturing .....	1	12	3	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	1	1	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	1	1	g	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	1	1	g	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	-	9	1	f	D	D	D	D	D	D	D	D
31182	Cookie, cracker, and pasta manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
311821	Cookie and cracker manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	1	13	9	1 133	48 925	860	1 878	30 331	130 766	181 381	313 442	7 213
3222	Converted paper product manufacturing .....	1	13	9	1 133	48 925	860	1 878	30 331	130 766	181 381	313 442	7 213
32221	Paperboard container manufacturing .....	1	6	5	802	34 257	620	1 349	21 971	85 245	134 320	220 861	D
322211	Corrugated and solid fiber box manufacturing .....	2	5	4	f	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	1	43	18	g	D	D	D	D	D	D	D	8 057
3231	Printing and related support activities .....	1	43	18	g	D	D	D	D	D	D	D	8 057
32311	Printing .....	1	39	15	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	1	10	9	913	29 026	735	1 603	22 016	104 890	105 213	212 450	6 117
3261	Plastics product manufacturing ..	1	10	9	913	29 026	735	1 603	22 016	104 890	105 213	212 450	6 117
334	Computer and electronic product manufacturing .....	-	5	2	g	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	-	3	1	g	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component manufacturing .....	-	3	1	g	D	D	D	D	D	D	D	D
334413	Semiconductor and related device manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>HENRY</b>													
31-33	Manufacturing .....	2	72	32	6 484	166 449	5 608	11 244	126 774	474 391	518 846	1 017 410	25 463
313	Textile mills .....	6	4	4	g	D	D	D	D	D	D	D	D
3132	Fabric mills .....	8	2	2	f	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	9	1	1	f	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	9	1	1	f	D	D	D	D	D	D	D	D
314	Textile product mills .....	-	1	1	f	D	D	D	D	D	D	D	D
3141	Textile furnishings mills .....	-	1	1	f	D	D	D	D	D	D	D	D
31412	Curtain and linen mills .....	-	1	1	f	D	D	D	D	D	D	D	D
314129	Other household textile product mills .....	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	5	4	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	4	4	f	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	-	14	7	g	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	11	6	g	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	7	6	g	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	-	3	3	g	D	D	D	D	D	D	D	D
<b>ISLE OF WIGHT</b>													
31-33	Manufacturing .....	-	21	4	h	D	D	D	D	D	D	D	D
311	Food manufacturing .....	-	6	4	h	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	5	4	h	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	5	4	h	D	D	D	D	D	D	D	D
311611	Animal (except poultry) slaughtering .....	-	2	2	h	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 3. Industry Statistics for Counties: 2002—Con.**

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<b>JAMES CITY</b>													
31-33	Manufacturing .....	-	37	11	2 325	108 994	1 713	3 502	69 102	996 692	474 476	1 472 341	56 173
312	Beverage and tobacco product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3121	Beverage manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
31212	Breweries .....	-	1	1	f	D	D	D	D	D	D	D	D
312120	Breweries .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>KING WILLIAM</b>													
31-33	Manufacturing .....	-	16	6	981	53 281	741	1 561	39 941	313 596	191 229	504 382	3 745
322	Paper manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
3221	Pulp, paper, and paperboard mills .....	-	1	1	f	D	D	D	D	D	D	D	D
32213	Paperboard mills .....	-	1	1	f	D	D	D	D	D	D	D	D
322130	Paperboard mills .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>LOUDOUN</b>													
31-33	Manufacturing .....	2	161	51	5 523	262 727	3 229	6 623	118 298	524 480	412 092	929 862	33 721
321	Wood product manufacturing .....	-	8	4	652	19 518	506	1 028	12 153	34 446	35 119	69 632	2 358
3219	Other wood product manufacturing .....	-	7	4	f	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	7	31	6	893	43 523	665	1 307	27 976	84 872	30 590	115 457	2 629
3231	Printing and related support activities .....	7	31	6	893	43 523	665	1 307	27 976	84 872	30 590	115 457	2 629
32311	Printing .....	7	26	6	879	42 840	654	1 288	27 537	83 581	30 302	113 879	2 593
323110	Commercial lithographic printing .....	7	14	5	792	39 848	592	1 184	25 774	77 706	27 223	104 847	2 312
334	Computer and electronic product manufacturing .....	2	31	15	1 391	64 147	760	1 599	28 472	126 683	98 906	220 514	6 846
336	Transportation equipment manufacturing .....	-	5	3	1 125	80 685	260	550	16 228	133 828	143 077	277 982	D
3364	Aerospace product and parts manufacturing .....	-	3	3	g	D	D	D	D	D	D	D	D
33641	Aerospace product and parts manufacturing .....	-	3	3	g	D	D	D	D	D	D	D	D
336414	Guided missile and space vehicle manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>LOUISA</b>													
31-33	Manufacturing .....	4	23	8	612	19 317	498	970	12 395	51 918	46 544	98 863	2 942
<b>LUNENBURG</b>													
31-33	Manufacturing .....	-	8	5	f	D	D	D	D	D	D	D	D
<b>MECKLENBURG</b>													
31-33	Manufacturing .....	-	38	20	2 538	61 308	2 046	3 552	41 700	135 812	190 550	348 808	7 885
313	Textile mills .....	-	6	6	990	22 266	780	1 069	13 940	26 289	94 272	141 626	D
3131	Fiber, yarn, and thread mills .....	-	3	3	f	D	D	D	D	D	D	D	D
31311	Fiber, yarn, and thread mills .....	-	3	3	f	D	D	D	D	D	D	D	D
313111	Yarn spinning mills .....	-	2	2	f	D	D	D	D	D	D	D	D
<b>MONTGOMERY</b>													
31-33	Manufacturing .....	-	65	21	3 568	122 792	2 747	5 411	79 721	369 607	272 932	642 551	47 109
335	Electrical equipment, appliance, and component manufacturing .....	-	4	3	f	D	D	D	D	D	D	D	D
3351	Electric lighting equipment manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
33512	Lighting fixture manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
335129	Other lighting equipment manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
336312	Gasoline engine and engine parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 3. Industry Statistics for Counties: 2002—Con.**

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NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>MONTGOMERY—Con.</b>													
337	Furniture and related product manufacturing .....	-	7	2	f	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	6	2	f	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
337121	Upholstered household furniture manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
<b>NOTTOWAY</b>													
31-33	Manufacturing .....	1	20	11	675	16 626	584	1 199	12 143	67 586	74 025	141 143	D
<b>ORANGE</b>													
31-33	Manufacturing .....	-	24	10	1 891	65 497	1 475	2 894	41 334	332 653	282 371	614 860	23 710
326	Plastics and rubber products manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D
32611	Plastics packaging materials and unlaminated film and sheet manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>PAGE</b>													
31-33	Manufacturing .....	-	22	8	2 442	55 438	1 971	4 007	42 938	459 182	139 954	607 832	3 190
315	Apparel manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
31522	Men's and boys' cut and sew apparel manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
315224	Men's and boys' cut and sew trouser, slack, and jean manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
3219	Other wood product manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
32191	Millwork .....	-	2	2	f	D	D	D	D	D	D	D	D
321911	Wood window and door manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
<b>PATRICK</b>													
31-33	Manufacturing .....	3	30	10	1 537	40 272	1 368	2 419	31 417	71 843	77 061	149 344	4 295
<b>PITTSYLVANIA</b>													
31-33	Manufacturing .....	-	57	22	3 142	84 849	2 525	4 999	60 846	254 315	432 378	673 496	13 098
313	Textile mills .....	-	1	1	f	D	D	D	D	D	D	D	D
3133	Textile and fabric finishing and fabric coating mills .....	-	1	1	f	D	D	D	D	D	D	D	D
31331	Textile and fabric finishing mills .....	-	1	1	f	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>PRINCE EDWARD</b>													
31-33	Manufacturing .....	-	22	5	559	13 874	462	895	9 507	41 606	26 383	68 209	3 114
<b>PRINCE GEORGE</b>													
31-33	Manufacturing .....	-	23	9	2 095	66 090	1 677	3 209	45 787	216 015	197 377	416 133	34 512
311	Food manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	1	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	1	1	f	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	1	1	g	D	D	D	D	D	D	D	D
32611	Plastics packaging materials and unlaminated film and sheet manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 3. Industry Statistics for Counties: 2002—Con.**

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>PRINCE WILLIAM</b>													
31-33	Manufacturing .....	2	98	25	2 329	91 034	1 704	3 573	58 498	181 760	169 116	354 324	10 257
<b>PULASKI</b>													
31-33	Manufacturing .....	-	49	29	6 014	210 737	4 643	9 374	137 649	489 190	967 597	1 445 901	42 336
325	Chemical manufacturing .....	1	4	4	g	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
32592	Explosives manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
325920	Explosives manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	7	6	g	D	D	D	D	D	D	D	D
3361	Motor vehicle manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
33612	Heavy duty truck manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
336120	Heavy duty truck manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	-	5	4	f	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	5	4	f	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	5	4	f	D	D	D	D	D	D	D	D
<b>ROANOKE</b>													
31-33	Manufacturing .....	-	62	15	3 251	118 972	2 259	4 313	64 302	287 453	265 155	568 537	8 207
332	Fabricated metal product manufacturing .....	-	9	4	678	26 317	456	767	12 617	55 736	33 816	90 044	1 610
334	Computer and electronic product manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>ROCKBRIDGE</b>													
31-33	Manufacturing .....	-	23	11	1 887	53 334	1 616	3 379	39 741	123 908	268 700	386 947	9 450
314	Textile product mills .....	-	2	2	g	D	D	D	D	D	D	D	D
3141	Textile furnishings mills .....	-	1	1	g	D	D	D	D	D	D	D	D
31411	Carpet and rug mills .....	-	1	1	g	D	D	D	D	D	D	D	D
314110	Carpet and rug mills .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>ROCKINGHAM</b>													
31-33	Manufacturing .....	-	78	28	8 799	280 942	6 799	13 206	186 740	2 641 962	2 043 653	4 748 421	184 993
311	Food manufacturing .....	-	14	9	5 557	116 816	4 619	8 890	93 321	641 449	812 610	1 511 332	41 114
3116	Animal slaughtering and processing .....	-	9	7	i	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	9	7	i	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	5	5	i	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
3254	Pharmaceutical and medicine manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
325411	Medicinal and botanical manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>RUSSELL</b>													
31-33	Manufacturing .....	2	20	5	1 575	49 700	1 178	2 278	32 902	90 809	120 796	210 574	3 264
326	Plastics and rubber products manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D

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<b>SCOTT</b>													
31-33	Manufacturing .....	-	9	5	f	D	D	D	D	D	D	D	D
<b>SHENANDOAH</b>													
31-33	Manufacturing .....	-	40	20	4 599	145 690	3 641	7 624	104 669	316 633	383 271	698 953	26 983
311	Food manufacturing .....	-	6	5	1 316	30 880	1 183	2 564	26 571	51 149	198 102	249 140	3 552
3116	Animal slaughtering and processing .....	-	3	3	1 078	24 660	981	2 136	22 269	35 116	119 983	154 651	D
31161	Animal slaughtering and processing .....	-	3	3	1 078	24 660	981	2 136	22 269	35 116	119 983	154 651	D
311615	Poultry processing .....	-	2	2	g	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	-	4	2	f	D	D	D	D	D	D	D	D
3231	Printing and related support activities .....	-	4	2	f	D	D	D	D	D	D	D	D
32311	Printing .....	-	4	2	f	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing .....	-	2	1	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>SMYTH</b>													
31-33	Manufacturing .....	-	48	22	4 568	135 505	3 806	7 523	99 832	267 171	381 407	661 696	15 641
321	Wood product manufacturing .....	-	8	5	1 064	31 326	969	1 801	26 841	56 915	82 677	137 783	2 983
3219	Other wood product manufacturing .....	-	6	4	f	D	D	D	D	D	D	D	D
32191	Millwork .....	-	4	4	f	D	D	D	D	D	D	D	D
321911	Wood window and door manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing ...	-	2	1	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	3	3	931	25 526	812	1 504	22 781	47 759	136 685	188 677	D
3362	Motor vehicle body and trailer manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
336212	Truck trailer manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D
<b>SOUTHAMPTON</b>													
31-33	Manufacturing .....	-	18	10	2 526	128 379	2 061	4 526	101 401	551 472	373 759	880 773	51 238
322	Paper manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3221	Pulp, paper, and paperboard mills .....	-	1	1	g	D	D	D	D	D	D	D	D
32212	Paper mills .....	-	1	1	g	D	D	D	D	D	D	D	D
322121	Paper (except newsprint) mills .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>SPOTSYLVANIA</b>													
31-33	Manufacturing .....	-	42	17	1 753	63 924	1 368	2 744	45 879	163 292	178 553	340 932	9 536
<b>STAFFORD</b>													
31-33	Manufacturing .....	1	40	6	674	19 538	503	1 022	13 838	58 615	60 139	119 964	7 539

See footnotes at end of table.

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<b>TAZEWELL</b>													
31-33	Manufacturing .....	1	62	20	1 412	43 459	988	1 867	24 329	105 766	136 832	245 506	D
<b>WARREN</b>													
31-33	Manufacturing .....	-	27	5	892	33 971	696	1 424	24 264	368 078	260 175	657 422	4 767
<b>WASHINGTON</b>													
31-33	Manufacturing .....	2	62	25	2 212	68 249	1 724	3 492	44 125	212 007	198 268	403 184	9 802
<b>WYTHE</b>													
31-33	Manufacturing .....	2	41	15	1 577	48 019	1 282	2 666	34 981	156 068	131 468	283 431	6 950
<b>YORK</b>													
31-33	Manufacturing .....	-	39	7	f	D	D	D	D	D	D	D	D
<b>ALEXANDRIA (IC)</b>													
31-33	Manufacturing .....	3	98	19	1 504	56 520	1 036	2 057	32 601	161 756	114 825	272 232	6 150
323	Printing and related support activities .....	2	34	7	555	23 737	387	727	13 680	44 622	22 249	62 439	2 229
3231	Printing and related support activities .....	2	34	7	555	23 737	387	727	13 680	44 622	22 249	62 439	2 229
32311	Printing .....	2	30	7	520	22 418	361	673	12 805	42 779	21 537	59 911	2 211
<b>BEDFORD (IC)</b>													
31-33	Manufacturing .....	1	21	11	1 304	36 180	1 007	1 812	23 349	65 193	99 680	164 655	4 692
337	Furniture and related product manufacturing .....	1	3	2	f	D	D	D	D	D	D	D	D
<b>BRISTOL (IC)</b>													
31-33	Manufacturing .....	2	40	20	5 463	199 010	4 070	8 472	129 955	257 487	384 314	680 597	8 066
311	Food manufacturing .....	4	4	3	f	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	-	5	3	h	D	D	D	D	D	D	D	1 752
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	3	3	3	f	D	D	D	D	D	D	D	D
<b>BUENA VISTA (IC)</b>													
31-33	Manufacturing .....	-	15	11	1 325	44 379	1 013	2 156	28 178	153 027	430 012	584 818	2 800
<b>CHARLOTTESVILLE (IC)</b>													
31-33	Manufacturing .....	2	68	15	3 630	189 798	1 501	3 072	47 600	377 564	251 361	640 428	11 952
334	Computer and electronic product manufacturing .....	2	5	3	g	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
335314	Relay and industrial control manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D

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<b>CHESAPEAKE (IC)</b>													
31-33	Manufacturing .....	1	145	51	4 651	185 450	3 213	6 470	112 254	460 428	655 514	1 139 760	23 771
333	Machinery manufacturing .....	-	14	7	998	44 302	522	962	18 147	102 212	97 821	227 723	D
336	Transportation equipment manufacturing .....	-	13	7	1 265	56 466	992	2 019	43 279	127 827	176 275	301 201	D
3366	Ship and boat building .....	-	8	5	f	D	D	D	D	D	D	D	D
33661	Ship and boat building .....	-	8	5	f	D	D	D	D	D	D	D	D
336611	Ship building and repairing ..	-	7	5	f	D	D	D	D	D	D	D	D
<b>COLONIAL HEIGHTS (IC)</b>													
31-33	Manufacturing .....	1	11	5	1 156	40 629	939	1 502	27 200	145 606	117 079	264 985	5 782
326	Plastics and rubber products manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing ...	-	1	1	f	D	D	D	D	D	D	D	D
32629	Other rubber product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
326299	All other rubber product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>COVINGTON (IC)</b>													
31-33	Manufacturing .....	-	9	6	g	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3221	Pulp, paper, and paperboard mills .....	-	1	1	g	D	D	D	D	D	D	D	D
32213	Paperboard mills .....	-	1	1	g	D	D	D	D	D	D	D	D
322130	Paperboard mills .....	-	1	1	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	3	2	2	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	3	2	2	f	D	D	D	D	D	D	D	D
<b>DANVILLE (IC)</b>													
31-33	Manufacturing .....	-	46	19	9 024	299 582	7 459	15 844	215 908	640 066	751 972	1 389 804	39 823
312	Beverage and tobacco product manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3122	Tobacco manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
31221	Tobacco stemming and redrying .....	-	2	2	f	D	D	D	D	D	D	D	D
312210	Tobacco stemming and redrying .....	-	2	2	f	D	D	D	D	D	D	D	D
313	Textile mills .....	-	2	1	h	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	1	1	h	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	-	1	1	h	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	-	1	1	h	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	-	5	4	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing ...	-	1	1	g	D	D	D	D	D	D	D	D
32621	Tire manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326211	Tire manufacturing (except retreading) .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>EMPORIA (IC)</b>													
31-33	Manufacturing .....	-	13	8	1 145	37 541	986	2 141	30 646	87 130	108 507	194 526	2 619
<b>FREDERICKSBURG (IC)</b>													
31-33	Manufacturing .....	2	46	15	943	34 665	653	1 354	20 843	73 302	83 295	157 675	2 717
<b>GALAX (IC)</b>													
31-33	Manufacturing .....	1	21	12	3 573	75 741	3 141	5 859	62 763	143 523	181 918	328 280	6 328
313	Textile mills .....	-	1	1	f	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
31324	Knit fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
313241	Weft knit fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	2	5	5	2 372	45 586	2 136	4 014	39 777	88 263	78 946	168 932	2 873
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	2	5	5	2 372	45 586	2 136	4 014	39 777	88 263	78 946	168 932	2 873
33712	Household and institutional furniture manufacturing .....	2	5	5	2 372	45 586	2 136	4 014	39 777	88 263	78 946	168 932	2 873
337122	Nonupholstered wood household furniture manufacturing .....	2	5	5	2 372	45 586	2 136	4 014	39 777	88 263	78 946	168 932	2 873

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>HAMPTON (IC)</b>													
31-33	Manufacturing .....	-	85	26	4 133	137 099	3 193	6 259	84 223	581 677	763 530	1 350 118	26 796
331	Primary metal manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
3315	Foundries .....	-	1	1	g	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries .....	-	1	1	g	D	D	D	D	D	D	D	D
331512	Steel investment foundries ..	-	1	1	g	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	1	18	6	620	22 392	451	923	15 191	43 105	22 995	64 613	D
334	Computer and electronic product manufacturing .....	-	6	5	g	D	D	D	D	D	D	D	D
3341	Computer and peripheral equipment manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing ....	-	2	1	f	D	D	D	D	D	D	D	D
334111	Electronic computer manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
<b>HARRISONBURG (IC)</b>													
31-33	Manufacturing .....	-	59	20	4 774	141 682	3 977	7 938	105 801	406 886	359 655	769 020	29 978
311	Food manufacturing .....	2	6	4	518	12 333	451	857	9 835	22 536	105 977	127 247	2 649
323	Printing and related support activities .....	-	7	2	g	D	D	D	D	D	D	D	D
3231	Printing and related support activities .....	-	7	2	g	D	D	D	D	D	D	D	D
32311	Printing .....	-	7	2	g	D	D	D	D	D	D	D	D
323117	Books printing .....	-	2	2	g	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>HOPEWELL (IC)</b>													
31-33	Manufacturing .....	-	17	6	1 892	112 283	1 376	3 070	77 209	569 553	484 736	1 045 853	36 156
325	Chemical manufacturing .....	-	6	5	g	D	D	D	D	D	D	D	D
3251	Basic chemical manufacturing ...	-	6	5	g	D	D	D	D	D	D	D	D
32519	Other basic organic chemical manufacturing .....	-	4	3	1 425	82 443	1 042	2 237	57 181	434 645	425 680	851 882	32 253
325199	All other basic organic chemical manufacturing ....	-	4	3	1 425	82 443	1 042	2 237	57 181	434 645	425 680	851 882	32 253
<b>LYNCHBURG (IC)</b>													
31-33	Manufacturing .....	1	118	48	9 567	423 220	6 333	13 754	227 198	1 186 198	654 193	1 758 135	49 087
311	Food manufacturing .....	3	8	4	f	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	-	11	1	f	D	D	D	D	D	D	D	D
3231	Printing and related support activities .....	-	11	1	f	D	D	D	D	D	D	D	D
32311	Printing .....	-	11	1	f	D	D	D	D	D	D	D	D
323111	Commercial gravure printing .	-	1	1	f	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	1	8	6	h	D	D	D	D	D	D	D	D
3251	Basic chemical manufacturing ...	2	2	2	g	D	D	D	D	D	D	D	D
32518	Other basic inorganic chemical manufacturing .....	2	2	2	g	D	D	D	D	D	D	D	D
325188	All other basic inorganic chemical manufacturing ....	2	2	2	g	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, and toilet preparation manufacturing .	-	2	2	f	D	D	D	D	D	D	D	D
32562	Toilet preparation manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
325620	Toilet preparation manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
331	Primary metal manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3315	Foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
331511	Iron foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	4	26	9	1 008	40 244	765	1 640	27 200	133 068	60 525	193 970	4 150
333	Machinery manufacturing .....	-	11	7	895	40 302	485	1 065	17 408	82 360	62 273	146 357	1 506
334	Computer and electronic product manufacturing .....	-	9	4	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)					
<b>LYNCHBURG (IC)—Con.</b>														
339	Miscellaneous manufacturing .....	9	12	2	f	D	D	D	D	D	D	D	D	
3399	Other miscellaneous manufacturing .....	9	8	2	f	D	D	D	D	D	D	D	D	
33999	All other miscellaneous manufacturing .....	9	5	2	f	D	D	D	D	D	D	D	D	
339991	Gasket, packing, and sealing device manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D	
<b>MANASSAS (IC)</b>														
31-33	Manufacturing .....	2	43	14		2 790	162 211	1 243	2 336	66 436	558 690	106 475	699 007	19 557
334	Computer and electronic product manufacturing .....	2	5	3	g	D	D	D	D	D	D	D	D	
3344	Semiconductor and other electronic component manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D	
33441	Semiconductor and other electronic component manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D	
334413	Semiconductor and related device manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D	
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D	
33451	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D	
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D	
<b>MARTINSVILLE (IC)</b>														
31-33	Manufacturing .....	2	33	15		3 311	92 838	2 560	5 035	60 604	167 523	241 861	415 735	8 306
315	Apparel manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D	
3151	Apparel knitting mills .....	-	2	1	f	D	D	D	D	D	D	D	D	
31519	Other apparel knitting mills .....	-	2	1	f	D	D	D	D	D	D	D	D	
315191	Outerwear knitting mills .....	-	2	1	f	D	D	D	D	D	D	D	D	
321	Wood product manufacturing .....	9	3	3	f	D	D	D	D	D	D	D	D	
3219	Other wood product manufacturing .....	9	2	2	f	D	D	D	D	D	D	D	D	
32199	All other wood product manufacturing .....	9	2	2	f	D	D	D	D	D	D	D	D	
321992	Prefabricated wood building manufacturing .....	9	2	2	f	D	D	D	D	D	D	D	D	
337	Furniture and related product manufacturing .....	-	4	2	g	D	D	D	D	D	D	D	D	
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	4	2	g	D	D	D	D	D	D	D	D	
33712	Household and institutional furniture manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D	
337122	Nonupholstered wood household furniture manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D	
337127	Institutional furniture manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D	
<b>NEWPORT NEWS (IC)</b>														
31-33	Manufacturing .....	-	121	42		22 213	989 026	14 270	27 520	563 297	2 730 794	1 091 929	3 827 696	109 990
311	Food manufacturing .....	4	11	4		645	21 581	416	726	9 969	51 111	133 280	184 558	D
333	Machinery manufacturing .....	1	8	5		531	19 356	284	553	8 522	47 740	30 523	79 245	727
334	Computer and electronic product manufacturing .....	-	9	4	g	D	D	D	D	D	D	D	D	
3341	Computer and peripheral equipment manufacturing .....	-	4	2	g	D	D	D	D	D	D	D	D	
33411	Computer and peripheral equipment manufacturing .....	-	4	2	g	D	D	D	D	D	D	D	D	
334119	Other computer peripheral equipment manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D	

See footnotes at end of table.

**Table 3. Industry Statistics for Counties: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>NEWPORT NEWS (IC)—Con.</b>													
336	Transportation equipment manufacturing .....	—	6	4	j	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
336312	Gasoline engine and engine parts manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
3366	Ship and boat building .....	—	3	2	j	D	D	D	D	D	D	D	D
33661	Ship and boat building .....	—	3	2	j	D	D	D	D	D	D	D	D
336611	Ship building and repairing ..	—	2	1	j	D	D	D	D	D	D	D	D
<b>NORFOLK (IC)</b>													
31-33	Manufacturing .....	—	194	70	9 752	418 413	7 738	16 215	320 779	1 564 248	2 743 752	4 294 111	92 479
311	Food manufacturing .....	—	14	10	771	18 895	462	790	9 114	85 215	87 559	173 108	3 782
332	Fabricated metal product manufacturing .....	1	32	10	608	20 016	438	920	11 796	42 351	34 315	76 406	1 535
333	Machinery manufacturing .....	4	10	4	1 120	29 374	760	1 579	16 119	69 325	41 131	109 466	2 102
3333	Commercial and service industry machinery manufacturing .....	9	2	1	f	D	D	D	D	D	D	D	D
33331	Commercial and service industry machinery manufacturing .....	9	2	1	f	D	D	D	D	D	D	D	D
333319	Other commercial and service industry machinery manufacturing .....	9	2	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	—	17	8	h	D	D	D	D	D	D	D	D
3361	Motor vehicle manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
33611	Automobile and light duty motor vehicle manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
336112	Light truck and utility vehicle manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
3366	Ship and boat building .....	—	13	7	g	D	D	D	D	D	D	D	9 864
33661	Ship and boat building .....	—	13	7	g	D	D	D	D	D	D	D	9 864
336611	Ship building and repairing ..	—	11	6	g	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	5	21	7	774	19 469	634	1 219	14 435	51 139	15 021	60 528	D
3391	Medical equipment and supplies manufacturing .....	4	10	5	525	14 017	418	751	9 780	40 273	9 666	43 986	D
33911	Medical equipment and supplies manufacturing .....	4	10	5	525	14 017	418	751	9 780	40 273	9 666	43 986	D
<b>PETERSBURG (IC)</b>													
31-33	Manufacturing .....	3	41	20	2 416	106 728	1 755	3 592	60 840	328 090	344 577	660 096	42 986
<b>PORTSMOUTH (IC)</b>													
31-33	Manufacturing .....	—	66	17	1 864	71 878	1 374	2 877	48 739	263 282	171 072	435 737	D
311	Food manufacturing .....	—	9	4	739	21 574	570	1 273	16 665	130 424	50 491	181 610	3 081
3116	Animal slaughtering and processing .....	—	3	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	—	3	1	f	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses .....	—	2	1	f	D	D	D	D	D	D	D	D
<b>RADFORD (IC)</b>													
31-33	Manufacturing .....	2	21	10	2 065	73 297	1 771	3 883	59 003	189 258	158 354	346 129	6 158
331	Primary metal manufacturing .....	—	3	3	f	D	D	D	D	D	D	D	D
3315	Foundries .....	—	2	2	f	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries .....	—	2	2	f	D	D	D	D	D	D	D	D
331511	Iron foundries .....	—	2	2	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	5	2	2	f	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	5	2	2	f	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	5	2	2	f	D	D	D	D	D	D	D	D
335312	Motor and generator manufacturing .....	5	2	2	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 3. Industry Statistics for Counties: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>RICHMOND (IC)</b>													
31-33	Manufacturing .....	-	297	97	15 417	748 994	9 995	20 121	410 812	11 347 830	2 600 073	13 923 842	138 524
311	Food manufacturing .....	-	18	9	f	D	D	D	D	D	D	D	2 389
3118	Bakeries and tortilla manufacturing .....	-	12	5	f	D	D	D	D	D	D	D	D
312	Beverage and tobacco product manufacturing .....	-	4	2	h	D	D	D	D	D	D	D	D
3122	Tobacco manufacturing .....	-	3	2	h	D	D	D	D	D	D	D	D
31222	Tobacco product manufacturing .....	-	3	2	h	D	D	D	D	D	D	D	D
312221	Cigarette manufacturing ....	-	1	1	h	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	1	20	14	1 489	59 740	1 167	2 443	40 116	104 861	207 744	311 839	5 891
3222	Converted paper product manufacturing .....	1	17	11	g	D	D	D	D	D	D	D	D
32221	Paperboard container manufacturing .....	1	12	7	f	D	D	D	D	D	D	D	2 743
323	Printing and related support activities .....	1	55	16	g	D	D	D	D	D	D	D	4 718
3231	Printing and related support activities .....	1	55	16	g	D	D	D	D	D	D	D	4 718
32311	Printing .....	1	48	13	g	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing .....	1	21	7	f	D	D	D	D	D	D	D	2 721
325	Chemical manufacturing .....	-	13	6	1 536	55 982	735	1 114	15 448	382 895	146 370	507 783	31 871
3254	Pharmaceutical and medicine manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	8	6	f	D	D	D	D	D	D	D	5 916
3261	Plastics product manufacturing ..	-	8	6	f	D	D	D	D	D	D	D	5 916
331	Primary metal manufacturing .....	-	5	2	f	D	D	D	D	D	D	D	D
3313	Alumina and aluminum production and processing .....	-	2	2	f	D	D	D	D	D	D	D	D
33131	Alumina and aluminum production and processing ...	-	2	2	f	D	D	D	D	D	D	D	D
331315	Aluminum sheet, plate, and foil manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	4	39	10	f	D	D	D	D	D	D	D	2 897
337	Furniture and related product manufacturing .....	8	34	8	f	D	D	D	D	D	D	D	2 622
<b>ROANOKE (IC)</b>													
31-33	Manufacturing .....	2	126	45	4 579	160 293	3 341	6 557	98 048	556 855	471 997	1 026 999	16 983
311	Food manufacturing .....	6	7	4	f	D	D	D	D	D	D	D	D
331	Primary metal manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
<b>SALEM (IC)</b>													
31-33	Manufacturing .....	-	76	28	4 671	177 326	3 304	6 105	113 237	769 741	380 444	1 167 795	29 463
326	Plastics and rubber products manufacturing .....	-	3	1	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing ...	-	2	1	g	D	D	D	D	D	D	D	D
32621	Tire manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326211	Tire manufacturing (except retreading) .....	-	1	1	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
335314	Relay and industrial control manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 3. Industry Statistics for Counties: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	All establishments <sup>2</sup>			All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		E1	Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>SUFFOLK (IC)</b>													
31-33	Manufacturing .....	3	55	21	2 229	89 939	1 586	3 117	56 111	573 164	577 071	1 155 828	27 169
311	Food manufacturing .....	4	10	3	896	37 173	668	1 257	23 458	438 696	394 748	837 231	D
3119	Other food manufacturing .....	3	6	3	f	D	D	D	D	D	D	D	D
31192	Coffee and tea manufacturing .....	6	2	2	f	D	D	D	D	D	D	D	D
311920	Coffee and tea manufacturing .....	6	2	2	f	D	D	D	D	D	D	D	D
<b>VIRGINIA BEACH (IC)</b>													
31-33	Manufacturing .....	2	225	40	5 067	152 780	3 748	7 065	90 682	605 058	592 649	1 171 374	34 609
323	Printing and related support activities .....	8	40	6	687	19 052	540	908	13 370	146 919	32 238	179 296	4 087
3231	Printing and related support activities .....	8	40	6	687	19 052	540	908	13 370	146 919	32 238	179 296	4 087
32311	Printing .....	8	38	6	f	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	-	9	4	g	D	D	D	D	D	D	D	D
3331	Agriculture, construction, and mining machinery manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
33311	Agricultural implement manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
333112	Lawn and garden tractor and home lawn and garden equipment manufacturing ..	-	1	1	g	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	3	37	5	928	23 020	737	1 353	13 184	59 831	43 058	101 868	D
3399	Other miscellaneous manufacturing .....	2	23	5	864	20 906	689	1 252	11 770	55 713	41 572	96 270	D
<b>WAYNESBORO (IC)</b>													
31-33	Manufacturing .....	-	39	14	3 149	134 931	2 335	5 047	89 028	451 836	279 666	731 581	23 733
313	Textile mills .....	-	2	2	f	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	2	2	f	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
32522	Artificial and synthetic fibers and filaments manufacturing ..	-	1	1	g	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>WINCHESTER (IC)</b>													
31-33	Manufacturing .....	-	45	24	i	D	D	D	D	D	D	D	46 593
311	Food manufacturing .....	-	7	3	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	6	6	2 582	109 015	1 607	3 385	61 073	449 466	160 269	612 237	D
3261	Plastics product manufacturing ..	-	5	5	h	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	4	4	g	D	D	D	D	D	D	D	14 148
326199	All other plastics product manufacturing .....	-	4	4	g	D	D	D	D	D	D	D	14 148

<sup>1</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of the figures shown: 1-10 to 19 percent; 2-20 to 29 percent; 3-30 to 39 percent; 4-40 to 49 percent; 5-50 to 59 percent; 6-60 to 69 percent; 7-70 to 79 percent; 8-80 to 89 percent; 9-90 percent or more.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Industries with 500 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 500 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: 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.

<sup>4</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

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

**Table 4. Industry Statistics for Places: 2002**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
		E <sup>1</sup>	Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)					Wages (\$1,000)
<b>ALEXANDRIA (IC)</b>													
31-33	Manufacturing .....	3	98	19	1 504	56 520	1 036	2 057	32 601	161 756	114 825	272 232	6 150
323	Printing and related support activities .....	2	34	7	555	23 737	387	727	13 680	44 622	22 249	62 439	2 229
3231	Printing and related support activities .....	2	34	7	555	23 737	387	727	13 680	44 622	22 249	62 439	2 229
32311	Printing .....	2	30	7	520	22 418	361	673	12 805	42 779	21 537	59 911	2 211
<b>ALTAVISTA</b>													
31-33	Manufacturing .....	-	9	7	2 045	75 893	1 721	3 847	58 194	504 913	272 167	733 952	47 789
311	Food manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3115	Dairy product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
311514	Dry, condensed, and evaporated dairy product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
313	Textile mills .....	-	1	1	f	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>ASHLAND</b>													
31-33	Manufacturing .....	3	39	14	755	25 262	477	969	13 246	60 623	52 438	112 732	3 879
<b>BEDFORD (IC)</b>													
31-33	Manufacturing .....	1	21	11	1 304	36 180	1 007	1 812	23 349	65 193	99 680	164 655	4 692
337	Furniture and related product manufacturing .....	1	3	2	f	D	D	D	D	D	D	D	D
<b>BERRYVILLE</b>													
31-33	Manufacturing .....	-	9	3	g	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	-	2	1	f	D	D	D	D	D	D	D	D
3231	Printing and related support activities .....	-	2	1	f	D	D	D	D	D	D	D	D
32311	Printing .....	-	1	1	f	D	D	D	D	D	D	D	D
323117	Books printing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>BLACKSBURG</b>													
31-33	Manufacturing .....	-	28	8	1 447	53 202	1 141	2 161	36 444	187 357	98 828	282 207	D
336	Transportation equipment manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
336312	Gasoline engine and engine parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>BLUEFIELD</b>													
31-33	Manufacturing .....	2	15	7	f	D	D	D	D	D	D	D	D
<b>BRIDGEWATER</b>													
31-33	Manufacturing .....	-	9	5	g	D	D	D	D	D	D	D	2 183
311	Food manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	1	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	1	1	f	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	1	1	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>BRISTOL (IC)</b>													
31-33	Manufacturing .....	2	40	20	5 463	199 010	4 070	8 472	129 955	257 487	384 314	680 597	8 066
311	Food manufacturing .....	4	4	3	f	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	-	5	3	h	D	D	D	D	D	D	D	1 752
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	3	3	3	f	D	D	D	D	D	D	D	D
<b>BUENA VISTA (IC)</b>													
31-33	Manufacturing .....	-	15	11	1 325	44 379	1 013	2 156	28 178	153 027	430 012	584 818	2 800
<b>CHARLOTTESVILLE (IC)</b>													
31-33	Manufacturing .....	2	68	15	3 630	189 798	1 501	3 072	47 600	377 564	251 361	640 428	11 952
334	Computer and electronic product manufacturing .....	2	5	3	g	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
335314	Relay and industrial control manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>CHESAPEAKE (IC)</b>													
31-33	Manufacturing .....	1	145	51	4 651	185 450	3 213	6 470	112 254	460 428	655 514	1 139 760	23 771
333	Machinery manufacturing .....	-	14	7	998	44 302	522	962	18 147	102 212	97 821	227 723	D
336	Transportation equipment manufacturing .....	-	13	7	1 265	56 466	992	2 019	43 279	127 827	176 275	301 201	D
3366	Ship and boat building .....	-	8	5	f	D	D	D	D	D	D	D	D
33661	Ship and boat building .....	-	8	5	f	D	D	D	D	D	D	D	D
336611	Ship building and repairing .....	-	7	5	f	D	D	D	D	D	D	D	D
<b>CHRISTIANSBURG</b>													
31-33	Manufacturing .....	1	24	9	1 287	47 569	893	1 784	26 699	128 277	124 285	256 347	13 945
335	Electrical equipment, appliance, and component manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3351	Electric lighting equipment manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
33512	Lighting fixture manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
335129	Other lighting equipment manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>COLONIAL HEIGHTS (IC)</b>													
31-33	Manufacturing .....	1	11	5	1 156	40 629	939	1 502	27 200	145 606	117 079	264 985	5 782
326	Plastics and rubber products manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
32629	Other rubber product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
326299	All other rubber product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>COVINGTON (IC)</b>													
31-33	Manufacturing .....	-	9	6	g	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3221	Pulp, paper, and paperboard mills .....	-	1	1	g	D	D	D	D	D	D	D	D
32213	Paperboard mills .....	-	1	1	g	D	D	D	D	D	D	D	D
322130	Paperboard mills .....	-	1	1	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	3	2	2	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	3	2	2	f	D	D	D	D	D	D	D	D
<b>CULPEPER</b>													
31-33	Manufacturing .....	-	12	6	769	26 536	673	1 294	21 255	107 034	87 310	197 224	2 150
<b>DANVILLE (IC)</b>													
31-33	Manufacturing .....	-	46	19	9 024	299 582	7 459	15 844	215 908	640 066	751 972	1 389 804	39 823
312	Beverage and tobacco product manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3122	Tobacco manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
31221	Tobacco stemming and redrying .....	-	2	2	f	D	D	D	D	D	D	D	D
312210	Tobacco stemming and redrying .....	-	2	2	f	D	D	D	D	D	D	D	D
313	Textile mills .....	-	2	1	h	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	1	1	h	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	-	1	1	h	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	-	1	1	h	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	-	5	4	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing ...	-	1	1	g	D	D	D	D	D	D	D	D
32621	Tire manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326211	Tire manufacturing (except retreading) .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>EMPORIA (IC)</b>													
31-33	Manufacturing .....	-	13	8	1 145	37 541	986	2 141	30 646	87 130	108 507	194 526	2 619
<b>FREDERICKSBURG (IC)</b>													
31-33	Manufacturing .....	2	46	15	943	34 665	653	1 354	20 843	73 302	83 295	157 675	2 717
<b>FRONT ROYAL</b>													
31-33	Manufacturing .....	-	15	2	f	D	D	D	D	D	D	D	D
<b>GALAX (IC)</b>													
31-33	Manufacturing .....	1	21	12	3 573	75 741	3 141	5 859	62 763	143 523	181 918	328 280	6 328
313	Textile mills .....	-	1	1	f	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
31324	Knit fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
313241	Weft knit fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	2	5	5	2 372	45 586	2 136	4 014	39 777	88 263	78 946	168 932	2 873
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	2	5	5	2 372	45 586	2 136	4 014	39 777	88 263	78 946	168 932	2 873
33712	Household and institutional furniture manufacturing .....	2	5	5	2 372	45 586	2 136	4 014	39 777	88 263	78 946	168 932	2 873
337122	Nonupholstered wood household furniture manufacturing .....	2	5	5	2 372	45 586	2 136	4 014	39 777	88 263	78 946	168 932	2 873

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>HAMPTON (IC)</b>													
31-33	Manufacturing .....	-	85	26	4 133	137 099	3 193	6 259	84 223	581 677	763 530	1 350 118	26 796
331	Primary metal manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
3315	Foundries .....	-	1	1	g	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries .....	-	1	1	g	D	D	D	D	D	D	D	D
331512	Steel investment foundries ..	-	1	1	g	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	1	18	6	620	22 392	451	923	15 191	43 105	22 995	64 613	D
334	Computer and electronic product manufacturing .....	-	6	5	g	D	D	D	D	D	D	D	D
3341	Computer and peripheral equipment manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing ....	-	2	1	f	D	D	D	D	D	D	D	D
334111	Electronic computer manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
<b>HARRISONBURG (IC)</b>													
31-33	Manufacturing .....	-	59	20	4 774	141 682	3 977	7 938	105 801	406 886	359 655	769 020	29 978
311	Food manufacturing .....	2	6	4	518	12 333	451	857	9 835	22 536	105 977	127 247	2 649
323	Printing and related support activities .....	-	7	2	g	D	D	D	D	D	D	D	D
3231	Printing and related support activities .....	-	7	2	g	D	D	D	D	D	D	D	D
32311	Printing .....	-	7	2	g	D	D	D	D	D	D	D	D
323117	Books printing .....	-	2	2	g	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>HILLSVILLE</b>													
31-33	Manufacturing .....	-	13	9	1 369	33 737	1 214	2 486	28 303	107 505	92 700	197 597	8 060
313	Textile mills .....	-	4	4	814	21 683	723	1 513	18 469	81 420	71 707	150 941	D
<b>HOPEWELL (IC)</b>													
31-33	Manufacturing .....	-	17	6	1 892	112 283	1 376	3 070	77 209	569 553	484 736	1 045 853	36 156
325	Chemical manufacturing .....	-	6	5	g	D	D	D	D	D	D	D	D
3251	Basic chemical manufacturing ...	-	6	5	g	D	D	D	D	D	D	D	D
32519	Other basic organic chemical manufacturing .....	-	4	3	1 425	82 443	1 042	2 237	57 181	434 645	425 680	851 882	32 253
325199	All other basic organic chemical manufacturing ....	-	4	3	1 425	82 443	1 042	2 237	57 181	434 645	425 680	851 882	32 253
<b>LEBANON</b>													
31-33	Manufacturing .....	2	9	4	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>LEESBURG</b>													
31-33	Manufacturing .....	4	16	4	511	19 873	315	733	9 690	34 315	31 896	66 222	1 686
<b>LURAY</b>													
31-33	Manufacturing .....	-	9	3	g	D	D	D	D	D	D	D	2 224
315	Apparel manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
31522	Men's and boys' cut and sew apparel manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
315224	Men's and boys' cut and sew trouser, slack, and jean manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>LYNCHBURG (IC)</b>													
31-33	Manufacturing .....	1	118	48	9 567	423 220	6 333	13 754	227 198	1 186 198	654 193	1 758 135	49 087
311	Food manufacturing .....	3	8	4	f	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	-	11	1	f	D	D	D	D	D	D	D	D
3231	Printing and related support activities .....	-	11	1	f	D	D	D	D	D	D	D	D
32311	Printing .....	-	11	1	f	D	D	D	D	D	D	D	D
323111	Commercial gravure printing .....	-	1	1	f	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	1	8	6	h	D	D	D	D	D	D	D	D
3251	Basic chemical manufacturing .....	2	2	2	g	D	D	D	D	D	D	D	D
32518	Other basic inorganic chemical manufacturing .....	2	2	2	g	D	D	D	D	D	D	D	D
325188	All other basic inorganic chemical manufacturing .....	2	2	2	g	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, and toilet preparation manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
32562	Toilet preparation manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
325620	Toilet preparation manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
331	Primary metal manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3315	Foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
331511	Iron foundries .....	-	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	4	26	9	1 008	40 244	765	1 640	27 200	133 068	60 525	193 970	4 150
333	Machinery manufacturing .....	-	11	7	895	40 302	485	1 065	17 408	82 360	62 273	146 357	1 506
334	Computer and electronic product manufacturing .....	-	9	4	f	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	9	12	2	f	D	D	D	D	D	D	D	D
3399	Other miscellaneous manufacturing .....	9	8	2	f	D	D	D	D	D	D	D	D
33999	All other miscellaneous manufacturing .....	9	5	2	f	D	D	D	D	D	D	D	D
339991	Gasket, packing, and sealing device manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D
<b>MANASSAS (IC)</b>													
31-33	Manufacturing .....	2	43	14	2 790	162 211	1 243	2 336	66 436	558 690	106 475	699 007	19 557
334	Computer and electronic product manufacturing .....	2	5	3	g	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D
334413	Semiconductor and related device manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>MARION</b>													
31-33	Manufacturing .....	-	8	3	915	24 959	677	1 371	12 507	73 951	37 491	115 550	D
334	Computer and electronic product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>MARTINSVILLE (IC)</b>													
31-33	Manufacturing .....	2	33	15	3 311	92 838	2 560	5 035	60 604	167 523	241 861	415 735	8 306
315	Apparel manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
3151	Apparel knitting mills .....	-	2	1	f	D	D	D	D	D	D	D	D
31519	Other apparel knitting mills .....	-	2	1	f	D	D	D	D	D	D	D	D
315191	Outerwear knitting mills .....	-	2	1	f	D	D	D	D	D	D	D	D
321	Wood product manufacturing .....	9	3	3	f	D	D	D	D	D	D	D	D
3219	Other wood product manufacturing .....	9	2	2	f	D	D	D	D	D	D	D	D
32199	All other wood product manufacturing .....	9	2	2	f	D	D	D	D	D	D	D	D
321992	Prefabricated wood building manufacturing .....	9	2	2	f	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	-	4	2	g	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	4	2	g	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
337127	Institutional furniture manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>NEWPORT NEWS (IC)</b>													
31-33	Manufacturing .....	-	121	42	22 213	989 026	14 270	27 520	563 297	2 730 794	1 091 929	3 827 696	109 990
311	Food manufacturing .....	4	11	4	645	21 581	416	726	9 969	51 111	133 280	184 558	D
333	Machinery manufacturing .....	1	8	5	531	19 356	284	553	8 522	47 740	30 523	79 245	727
334	Computer and electronic product manufacturing .....	-	9	4	g	D	D	D	D	D	D	D	D
3341	Computer and peripheral equipment manufacturing .....	-	4	2	g	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing .....	-	4	2	g	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	6	4	j	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
336312	Gasoline engine and engine parts manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3366	Ship and boat building .....	-	3	2	j	D	D	D	D	D	D	D	D
33661	Ship and boat building .....	-	3	2	j	D	D	D	D	D	D	D	D
336611	Ship building and repairing .....	-	2	1	j	D	D	D	D	D	D	D	D
<b>NORFOLK (IC)</b>													
31-33	Manufacturing .....	-	194	70	9 752	418 413	7 738	16 215	320 779	1 564 248	2 743 752	4 294 111	92 479
311	Food manufacturing .....	-	14	10	771	18 895	462	790	9 114	85 215	87 559	173 108	3 782
332	Fabricated metal product manufacturing .....	1	32	10	608	20 016	438	920	11 796	42 351	34 315	76 406	1 535
333	Machinery manufacturing .....	4	10	4	1 120	29 374	760	1 579	16 119	69 325	41 131	109 466	2 102
3333	Commercial and service industry machinery manufacturing .....	9	2	1	f	D	D	D	D	D	D	D	D
33331	Commercial and service industry machinery manufacturing .....	9	2	1	f	D	D	D	D	D	D	D	D
333319	Other commercial and service industry machinery manufacturing .....	9	2	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	17	8	h	D	D	D	D	D	D	D	D
3361	Motor vehicle manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
33611	Automobile and light duty motor vehicle manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
336112	Light truck and utility vehicle manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3366	Ship and boat building .....	-	13	7	g	D	D	D	D	D	D	D	9 864
33661	Ship and boat building .....	-	13	7	g	D	D	D	D	D	D	D	9 864
336611	Ship building and repairing .....	-	11	6	g	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E <sup>1</sup>	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>NORFOLK (IC)—Con.</b>													
339	Miscellaneous manufacturing .....	5	21	7	774	19 469	634	1 219	14 435	51 139	15 021	60 528	D
3391	Medical equipment and supplies manufacturing .....	4	10	5	525	14 017	418	751	9 780	40 273	9 666	43 986	D
33911	Medical equipment and supplies manufacturing .....	4	10	5	525	14 017	418	751	9 780	40 273	9 666	43 986	D
<b>PETERSBURG (IC)</b>													
31-33	Manufacturing .....	3	41	20	2 416	106 728	1 755	3 592	60 840	328 090	344 577	660 096	42 986
<b>PORTSMOUTH (IC)</b>													
31-33	Manufacturing .....	—	66	17	1 864	71 878	1 374	2 877	48 739	263 282	171 072	435 737	D
311	Food manufacturing .....	—	9	4	739	21 574	570	1 273	16 665	130 424	50 491	181 610	3 081
3116	Animal slaughtering and processing .....	—	3	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	—	3	1	f	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses .....	—	2	1	f	D	D	D	D	D	D	D	D
<b>PULASKI</b>													
31-33	Manufacturing .....	2	15	9	1 787	47 003	1 586	3 427	39 234	117 610	116 050	237 919	D
337	Furniture and related product manufacturing .....	—	4	3	f	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	—	4	3	f	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	—	4	3	f	D	D	D	D	D	D	D	D
<b>RADFORD (IC)</b>													
31-33	Manufacturing .....	2	21	10	2 065	73 297	1 771	3 883	59 003	189 258	158 354	346 129	6 158
331	Primary metal manufacturing .....	—	3	3	f	D	D	D	D	D	D	D	D
3315	Foundries .....	—	2	2	f	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries .....	—	2	2	f	D	D	D	D	D	D	D	D
331511	Iron foundries .....	—	2	2	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	5	2	2	f	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	5	2	2	f	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	5	2	2	f	D	D	D	D	D	D	D	D
335312	Motor and generator manufacturing .....	5	2	2	f	D	D	D	D	D	D	D	D
<b>RICHMOND (IC)</b>													
31-33	Manufacturing .....	—	297	97	15 417	748 994	9 995	20 121	410 812	11 347 830	2 600 073	13 923 842	138 524
311	Food manufacturing .....	—	18	9	f	D	D	D	D	D	D	D	2 389
3118	Bakeries and tortilla manufacturing .....	—	12	5	f	D	D	D	D	D	D	D	D
312	Beverage and tobacco product manufacturing .....	—	4	2	h	D	D	D	D	D	D	D	D
3122	Tobacco manufacturing .....	—	3	2	h	D	D	D	D	D	D	D	D
31222	Tobacco product manufacturing .....	—	3	2	h	D	D	D	D	D	D	D	D
312221	Cigarette manufacturing .....	—	1	1	h	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	1	20	14	1 489	59 740	1 167	2 443	40 116	104 861	207 744	311 839	5 891
3222	Converted paper product manufacturing .....	1	17	11	g	D	D	D	D	D	D	D	D
32221	Paperboard container manufacturing .....	1	12	7	f	D	D	D	D	D	D	D	2 743
323	Printing and related support activities .....	1	55	16	g	D	D	D	D	D	D	D	4 718
3231	Printing and related support activities .....	1	55	16	g	D	D	D	D	D	D	D	4 718
32311	Printing .....	1	48	13	g	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing .....	1	21	7	f	D	D	D	D	D	D	D	2 721

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>RICHMOND (IC)—Con.</b>													
325	Chemical manufacturing .....	-	13	6	1 536	55 982	735	1 114	15 448	382 895	146 370	507 783	31 871
3254	Pharmaceutical and medicine manufacturing .....	-	1	g	D	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing .....	-	1	g	D	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation manufacturing .....	-	1	g	D	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	8	6	f	D	D	D	D	D	D	D	5 916
3261	Plastics product manufacturing ..	-	8	6	f	D	D	D	D	D	D	D	5 916
331	Primary metal manufacturing .....	-	5	2	f	D	D	D	D	D	D	D	D
3313	Alumina and aluminum production and processing .....	-	2	2	f	D	D	D	D	D	D	D	D
33131	Alumina and aluminum production and processing ...	-	2	2	f	D	D	D	D	D	D	D	D
331315	Aluminum sheet, plate, and foil manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	4	39	10	f	D	D	D	D	D	D	D	2 897
337	Furniture and related product manufacturing .....	8	34	8	f	D	D	D	D	D	D	D	2 622
<b>ROANOKE (IC)</b>													
31-33	Manufacturing .....	2	126	45	4 579	160 293	3 341	6 557	98 048	556 855	471 997	1 026 999	16 983
311	Food manufacturing .....	6	7	4	f	D	D	D	D	D	D	D	D
331	Primary metal manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
<b>ROCKY MOUNT</b>													
31-33	Manufacturing .....	-	20	9	2 268	70 774	1 622	3 464	45 889	144 738	172 003	311 053	7 328
326	Plastics and rubber products manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	1	1	g	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>SALEM (IC)</b>													
31-33	Manufacturing .....	-	76	28	4 671	177 326	3 304	6 105	113 237	769 741	380 444	1 167 795	29 463
326	Plastics and rubber products manufacturing .....	-	3	1	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing ...	-	2	1	g	D	D	D	D	D	D	D	D
32621	Tire manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326211	Tire manufacturing (except retreading) .....	-	1	1	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
335314	Relay and industrial control manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>SMITHFIELD</b>													
31-33	Manufacturing .....	-	9	4	h	D	D	D	D	D	D	D	D
311	Food manufacturing .....	-	5	4	h	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	5	4	h	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	5	4	h	D	D	D	D	D	D	D	D
311611	Animal (except poultry) slaughtering .....	-	2	2	h	D	D	D	D	D	D	D	D
<b>SOUTH BOSTON</b>													
31-33	Manufacturing .....	-	20	5	828	29 828	616	1 142	17 711	118 058	25 100	142 005	8 770
<b>SOUTH HILL</b>													
31-33	Manufacturing .....	1	17	9	956	24 562	812	1 620	17 506	59 376	61 494	123 424	5 172

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>STRASBURG</b>													
31-33	Manufacturing .....	-	9	6	g	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	-	2	1	f	D	D	D	D	D	D	D	D
3231	Printing and related support activities .....	-	2	1	f	D	D	D	D	D	D	D	D
32311	Printing .....	-	2	1	f	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing .....	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>SUFFOLK (IC)</b>													
31-33	Manufacturing .....	3	55	21	2 229	89 939	1 586	3 117	56 111	573 164	577 071	1 155 828	27 169
311	Food manufacturing .....	4	10	3	896	37 173	668	1 257	23 458	438 696	394 748	837 231	D
3119	Other food manufacturing .....	3	6	3	f	D	D	D	D	D	D	D	D
31192	Coffee and tea manufacturing .	6	2	2	f	D	D	D	D	D	D	D	D
311920	Coffee and tea manufacturing .....	6	2	2	f	D	D	D	D	D	D	D	D
<b>VIRGINIA BEACH (IC)</b>													
31-33	Manufacturing .....	2	225	40	5 067	152 780	3 748	7 065	90 682	605 058	592 649	1 171 374	34 609
323	Printing and related support activities .....	8	40	6	687	19 052	540	908	13 370	146 919	32 238	179 296	4 087
3231	Printing and related support activities .....	8	40	6	687	19 052	540	908	13 370	146 919	32 238	179 296	4 087
32311	Printing .....	8	38	6	f	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	-	9	4	g	D	D	D	D	D	D	D	D
3331	Agriculture, construction, and mining machinery manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
33311	Agricultural implement manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
333112	Lawn and garden tractor and home lawn and garden equipment manufacturing ..	-	1	1	g	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	3	37	5	928	23 020	737	1 353	13 184	59 831	43 058	101 868	D
3399	Other miscellaneous manufacturing .....	2	23	5	864	20 906	689	1 252	11 770	55 713	41 572	96 270	D
<b>WAYNESBORO (IC)</b>													
31-33	Manufacturing .....	-	39	14	3 149	134 931	2 335	5 047	89 028	451 836	279 666	731 581	23 733
313	Textile mills .....	-	2	2	f	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	2	2	f	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
32522	Artificial and synthetic fibers and filaments manufacturing ..	-	1	1	g	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>WEST POINT</b>													
31-33	Manufacturing .....	-	7	5	f	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
3221	Pulp, paper, and paperboard mills .....	-	1	1	f	D	D	D	D	D	D	D	D
32213	Paperboard mills .....	-	1	1	f	D	D	D	D	D	D	D	D
322130	Paperboard mills .....	-	1	1	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>WINCHESTER (IC)</b>													
31-33	Manufacturing .....	-	45	24	i	D	D	D	D	D	D	D	46 593
311	Food manufacturing .....	-	7	3	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	6	6	2 582	109 015	1 607	3 385	61 073	449 466	160 269	612 237	D
3261	Plastics product manufacturing ..	-	5	5	h	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	4	4	g	D	D	D	D	D	D	D	14 148
326199	All other plastics product manufacturing .....	-	4	4	g	D	D	D	D	D	D	D	14 148
<b>WYTHEVILLE</b>													
31-33	Manufacturing .....	2	27	13	1 439	43 818	1 171	2 443	32 126	148 008	122 291	266 202	4 803
<b>BALANCE OF ACCOMACK COUNTY</b>													
31-33	Manufacturing .....	-	34	11	h	D	D	D	D	D	D	D	D
311	Food manufacturing .....	-	13	5	h	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	4	3	h	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	4	3	h	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	3	2	h	D	D	D	D	D	D	D	D
<b>BALANCE OF ALBEMARLE COUNTY</b>													
31-33	Manufacturing .....	3	46	14	1 399	47 568	915	1 838	25 179	106 304	146 872	252 193	D
<b>BALANCE OF ALLEGHANY COUNTY</b>													
31-33	Manufacturing .....	2	10	5	748	20 232	593	1 154	13 383	56 519	61 988	108 441	5 149
<b>BALANCE OF AMHERST COUNTY</b>													
31-33	Manufacturing .....	1	41	12	1 689	71 391	1 358	2 850	55 757	272 244	214 856	478 009	8 079
<b>BALANCE OF APPOMATTOX COUNTY</b>													
31-33	Manufacturing .....	-	18	2	678	20 947	552	1 020	15 196	39 374	24 689	64 153	919
337	Furniture and related product manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>BALANCE OF ARLINGTON COUNTY</b>													
31-33	Manufacturing .....	2	54	8	585	16 490	398	684	10 247	35 868	27 451	63 311	1 044
<b>BALANCE OF AUGUSTA COUNTY</b>													
31-33	Manufacturing .....	-	52	25	4 631	174 441	3 791	7 250	124 813	765 880	542 981	1 305 651	22 717
311	Food manufacturing .....	-	4	1	f	D	D	D	D	D	D	D	D
3113	Sugar and confectionery product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
31133	Confectionery manufacturing from purchased chocolate .....	-	1	1	f	D	D	D	D	D	D	D	D
311330	Confectionery manufacturing from purchased chocolate ..	-	1	1	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	-	16	8	1 618	59 591	1 242	2 108	34 792	153 826	119 014	275 030	10 903
3322	Cutlery and handtool manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
33221	Cutlery and handtool manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3329	Other fabricated metal product manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
33291	Metal valve manufacturing ....	-	1	1	f	D	D	D	D	D	D	D	D
332919	Other metal valve and pipe fitting manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	1	4	3	f	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
31-33	<b>BALANCE OF BEDFORD COUNTY</b> Manufacturing .....	1	68	16	1 677	68 025	1 076	2 108	32 983	275 241	209 942	485 632	23 773
31-33	<b>BALANCE OF BOTETOURT COUNTY</b> Manufacturing .....	-	28	18	1 878	60 939	1 123	2 013	30 888	143 746	231 709	373 305	15 951
31-33	<b>BALANCE OF BRUNSWICK COUNTY</b> Manufacturing .....	1	19	7	527	13 989	416	813	9 652	39 913	31 176	73 840	3 427
31-33	<b>BALANCE OF CAMPBELL COUNTY</b> Manufacturing .....	2	48	11	1 573	46 695	1 312	2 782	34 278	73 729	117 290	188 590	4 626
31-33	<b>BALANCE OF CHARLOTTE COUNTY</b> Manufacturing .....	1	15	9	999	26 478	880	1 766	20 934	51 920	87 775	138 832	2 900
313	Textile mills .....	-	1	1	f	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	-	1	1	f	D	D	D	D	D	D	D	D
31-33	<b>BALANCE OF CHESTERFIELD COUNTY</b> Manufacturing .....	-	176	53	9 674	431 871	7 254	15 597	288 364	1 484 825	1 629 766	3 125 438	113 108
311	Food manufacturing .....	2	12	5	690	19 564	546	1 019	14 021	85 454	131 102	216 555	D
312	Beverage and tobacco product manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
3122	Tobacco manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
313	Textile mills .....	-	3	2	g	D	D	D	D	D	D	D	D
3132	Fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
31323	Nonwoven fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
313230	Nonwoven fabric mills .....	-	2	2	g	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	-	8	5	725	27 829	627	1 259	21 881	59 002	62 361	125 000	1 663
3222	Converted paper product manufacturing .....	-	8	5	725	27 829	627	1 259	21 881	59 002	62 361	125 000	1 663
325	Chemical manufacturing .....	-	10	4	g	D	D	D	D	D	D	D	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
32521	Resin and synthetic rubber manufacturing .....	-	2	1	g	D	D	D	D	D	D	D	D
325211	Plastics material and resin manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	2	2	f	D	D	D	D	D	D	D	D
333	Machinery manufacturing .....	6	18	4	890	36 623	607	1 331	22 044	98 857	89 484	188 334	D
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	9	2	1	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	9	2	1	f	D	D	D	D	D	D	D	D
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	9	1	1	f	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	2	26	8	516	17 878	374	782	10 299	48 627	29 037	75 944	1 701
31-33	<b>BALANCE OF CULPEPER COUNTY</b> Manufacturing .....	-	'21	'9	'637	'22 883	401	606	11 197	'69 795	'92 198	'161 882	'9 312
31-33	<b>BALANCE OF DINWIDDIE COUNTY</b> Manufacturing .....	-	10	5	f	D	D	D	D	D	D	D	3 803

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>BALANCE OF ESSEX COUNTY</b>													
31-33	Manufacturing .....	4	15	5	727	18 755	580	1 214	13 602	26 086	42 354	68 519	1 091
<b>BALANCE OF FAIRFAX COUNTY</b>													
31-33	Manufacturing .....	2	388	82	9 952	448 905	5 276	10 634	186 449	976 258	652 230	1 636 623	45 043
311	Food manufacturing .....	—	31	8	714	22 353	359	703	10 120	79 007	98 393	176 319	1 541
323	Printing and related support activities .....	—	109	20	2 908	118 254	2 083	4 071	75 418	197 508	124 353	321 975	16 570
3231	Printing and related support activities .....	—	109	20	2 908	118 254	2 083	4 071	75 418	197 508	124 353	321 975	16 570
32311	Printing .....	—	101	18	h	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing .....	—	48	13	2 184	95 945	1 592	3 104	63 565	152 354	109 078	261 251	D
334	Computer and electronic product manufacturing .....	3	42	15	3 110	181 268	736	1 543	32 488	382 580	200 710	587 957	12 473
3342	Communications equipment manufacturing .....	4	12	7	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	1	13	7	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing .....	1	13	7	g	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	1	4	3	g	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing .....	4	64	7	743	26 942	456	869	12 692	53 578	27 562	82 505	3 494
<b>BALANCE OF FAUQUIER COUNTY</b>													
31-33	Manufacturing .....	1	33	8	792	29 421	555	981	16 861	50 276	60 688	110 556	2 324
<b>BALANCE OF FRANKLIN COUNTY</b>													
31-33	Manufacturing .....	—	35	7	831	25 674	620	1 135	14 547	54 156	62 019	116 251	1 741
<b>BALANCE OF FREDERICK COUNTY</b>													
31-33	Manufacturing .....	—	76	40	h	D	D	D	D	D	D	D	D
311	Food manufacturing .....	—	8	5	591	19 907	423	874	12 921	137 946	321 128	448 578	D
321	Wood product manufacturing .....	—	9	6	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	1	10	6	530	16 188	409	682	11 064	61 586	71 724	133 670	D
336	Transportation equipment manufacturing .....	—	2	2	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
33636	Motor vehicle seating and interior trim manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
336360	Motor vehicle seating and interior trim manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
<b>BALANCE OF GILES COUNTY</b>													
31-33	Manufacturing .....	—	10	5	g	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
32522	Artificial and synthetic fibers and filaments manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
325221	Cellulosic organic fiber manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
<b>BALANCE OF GRAYSON COUNTY</b>													
31-33	Manufacturing .....	3	17	8	737	27 249	541	1 228	14 982	135 184	63 505	196 604	16 203

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>BALANCE OF GREENE COUNTY</b>													
31-33	Manufacturing .....	-	10	1	f	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	-	2	1	f	D	D	D	D	D	D	D	D
3346	Manufacturing and reproducing magnetic and optical media.....	-	1	1	f	D	D	D	D	D	D	D	D
33461	Manufacturing and reproducing magnetic and optical media...	-	1	1	f	D	D	D	D	D	D	D	D
334612	Prerecorded compact disc (except software), tape, and record reproducing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>BALANCE OF GREENSVILLE COUNTY</b>													
31-33	Manufacturing .....	-	7	4	1 506	36 508	1 413	2 725	32 476	173 251	102 402	274 968	7 172
311	Food manufacturing .....	-	3	3	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	3	3	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	3	3	g	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	2	2	g	D	D	D	D	D	D	D	D
<b>BALANCE OF HALIFAX COUNTY</b>													
31-33	Manufacturing .....	-	22	11	2 426	61 911	2 100	3 613	46 365	202 923	218 010	428 297	18 174
326	Plastics and rubber products manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	3	2	f	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	3	2	f	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	-	2	2	f	D	D	D	D	D	D	D	D
<b>BALANCE OF HANOVER COUNTY</b>													
31-33	Manufacturing .....	3	104	28	2 352	88 794	1 577	3 030	48 877	293 113	262 955	555 385	10 831
339	Miscellaneous manufacturing .....	-	9	3	f	D	D	D	D	D	D	D	D
3399	Other miscellaneous manufacturing .....	-	7	3	f	D	D	D	D	D	D	D	D
<b>BALANCE OF HENRICO COUNTY</b>													
31-33	Manufacturing .....	1	209	75	9 800	357 660	7 235	14 293	223 853	1 713 776	1 169 489	2 899 674	103 770
311	Food manufacturing .....	1	12	3	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	1	1	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	1	1	g	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	1	1	g	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing .....	-	9	1	f	D	D	D	D	D	D	D	D
31182	Cookie, cracker, and pasta manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
311821	Cookie and cracker manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
322	Paper manufacturing .....	1	13	9	1 133	48 925	860	1 878	30 331	130 766	181 381	313 442	7 213
3222	Converted paper product manufacturing .....	1	13	9	1 133	48 925	860	1 878	30 331	130 766	181 381	313 442	7 213
32221	Paperboard container manufacturing .....	1	6	5	802	34 257	620	1 349	21 971	85 245	134 320	220 861	D
322211	Corrugated and solid fiber box manufacturing .....	2	5	4	f	D	D	D	D	D	D	D	D
323	Printing and related support activities .....	1	43	18	g	D	D	D	D	D	D	D	8 057
3231	Printing and related support activities .....	1	43	18	g	D	D	D	D	D	D	D	8 057
32311	Printing .....	1	39	15	g	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>BALANCE OF HENRICO COUNTY—Con.</b>													
326	Plastics and rubber products manufacturing .....	1	10	9	913	29 026	735	1 603	22 016	104 890	105 213	212 450	6 117
3261	Plastics product manufacturing ..	1	10	9	913	29 026	735	1 603	22 016	104 890	105 213	212 450	6 117
334	Computer and electronic product manufacturing .....	—	5	2	g	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing .....	—	3	1	g	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component manufacturing .....	—	3	1	g	D	D	D	D	D	D	D	D
334413	Semiconductor and related device manufacturing .....	—	1	1	g	D	D	D	D	D	D	D	D
<b>BALANCE OF HENRY COUNTY</b>													
31-33	Manufacturing .....	2	72	32	6 484	166 449	5 608	11 244	126 774	474 391	518 846	1 017 410	25 463
313	Textile mills .....	6	4	4	g	D	D	D	D	D	D	D	D
3132	Fabric mills .....	8	2	2	f	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills .....	9	1	1	f	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills .....	9	1	1	f	D	D	D	D	D	D	D	D
314	Textile product mills .....	—	1	1	f	D	D	D	D	D	D	D	D
3141	Textile furnishings mills .....	—	1	1	f	D	D	D	D	D	D	D	D
31412	Curtain and linen mills .....	—	1	1	f	D	D	D	D	D	D	D	D
314129	Other household textile product mills .....	—	1	1	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	—	5	4	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	—	4	4	f	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing .....	—	14	7	g	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	—	11	6	g	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	—	7	6	g	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture manufacturing .....	—	3	3	g	D	D	D	D	D	D	D	D
<b>BALANCE OF JAMES CITY COUNTY</b>													
31-33	Manufacturing .....	—	37	11	2 325	108 994	1 713	3 502	69 102	996 692	474 476	1 472 341	56 173
312	Beverage and tobacco product manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
3121	Beverage manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
31212	Breweries .....	—	1	1	f	D	D	D	D	D	D	D	D
312120	Breweries .....	—	1	1	f	D	D	D	D	D	D	D	D
<b>BALANCE OF LOUDOUN COUNTY</b>													
31-33	Manufacturing .....	2	138	44	4 788	235 007	2 781	5 596	104 691	476 369	367 768	837 324	30 963
323	Printing and related support activities .....	7	29	6	f	D	D	D	D	D	D	D	D
3231	Printing and related support activities .....	7	29	6	f	D	D	D	D	D	D	D	D
32311	Printing .....	7	24	6	f	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing .....	7	13	5	f	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing .....	1	26	12	1 249	57 218	733	1 545	27 429	114 672	87 558	197 157	D
336	Transportation equipment manufacturing .....	—	5	3	1 125	80 685	260	550	16 228	133 828	143 077	277 982	D
3364	Aerospace product and parts manufacturing .....	—	3	3	g	D	D	D	D	D	D	D	D
33641	Aerospace product and parts manufacturing .....	—	3	3	g	D	D	D	D	D	D	D	D
336414	Guided missile and space vehicle manufacturing .....	—	1	1	f	D	D	D	D	D	D	D	D
<b>BALANCE OF LOUISA COUNTY</b>													
31-33	Manufacturing .....	4	23	8	612	19 317	498	970	12 395	51 918	46 544	98 863	2 942

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>BALANCE OF LUNENBURG COUNTY</b>													
31-33	Manufacturing .....	-	8	5	f	D	D	D	D	D	D	D	D
<b>BALANCE OF MECKLENBURG COUNTY</b>													
31-33	Manufacturing .....	-	21	11	1 582	36 746	1 234	1 932	24 194	76 436	129 056	225 384	2 713
313	Textile mills .....	-	2	2	f	D	D	D	D	D	D	D	D
3131	Fiber, yarn, and thread mills .....	-	2	2	f	D	D	D	D	D	D	D	D
31311	Fiber, yarn, and thread mills ...	-	2	2	f	D	D	D	D	D	D	D	D
313111	Yarn spinning mills .....	-	2	2	f	D	D	D	D	D	D	D	D
<b>BALANCE OF MONTGOMERY COUNTY</b>													
31-33	Manufacturing .....	-	13	4	834	22 021	713	1 466	16 578	53 973	49 819	103 997	D
337	Furniture and related product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33712	Household and institutional furniture manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
337121	Upholstered household furniture manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>BALANCE OF ORANGE COUNTY</b>													
31-33	Manufacturing .....	-	16	7	1 526	55 084	1 151	2 251	32 652	303 937	251 280	555 022	22 647
326	Plastics and rubber products manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D
32611	Plastics packaging materials and unlaminated film and sheet manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>BALANCE OF PAGE COUNTY</b>													
31-33	Manufacturing .....	-	13	5	g	D	D	D	D	D	D	D	966
<b>BALANCE OF PATRICK COUNTY</b>													
31-33	Manufacturing .....	3	30	10	1 537	40 272	1 368	2 419	31 417	71 843	77 061	149 344	4 295
<b>BALANCE OF PITTSYLVANIA COUNTY</b>													
31-33	Manufacturing .....	-	57	22	3 142	84 849	2 525	4 999	60 846	254 315	432 378	673 496	13 098
313	Textile mills .....	-	1	1	f	D	D	D	D	D	D	D	D
3133	Textile and fabric finishing and fabric coating mills .....	-	1	1	f	D	D	D	D	D	D	D	D
31331	Textile and fabric finishing mills .....	-	1	1	f	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>BALANCE OF PRINCE GEORGE COUNTY</b>													
31-33	Manufacturing .....	-	23	9	2 095	66 090	1 677	3 209	45 787	216 015	197 377	416 133	34 512
311	Food manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	1	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	1	1	f	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	1	1	g	D	D	D	D	D	D	D	D
32611	Plastics packaging materials and unlaminated film and sheet manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>BALANCE OF PRINCE WILLIAM COUNTY</b>													
31-33	Manufacturing .....	2	92	24	2 221	87 584	1 617	3 371	56 103	172 181	162 754	338 404	D

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

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			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>BALANCE OF PULASKI COUNTY</b>													
31-33	Manufacturing .....	-	34	20	4 227	163 734	3 057	5 947	98 415	371 580	851 547	1 207 982	D
325	Chemical manufacturing .....	-	3	3	g	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
32592	Explosives manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
325920	Explosives manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	7	6	g	D	D	D	D	D	D	D	D
3361	Motor vehicle manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
33612	Heavy duty truck manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
336120	Heavy duty truck manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>BALANCE OF ROANOKE COUNTY</b>													
31-33	Manufacturing .....	-	50	13	h	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing .....	-	9	4	678	26 317	456	767	12 617	55 736	33 816	90 044	1 610
334	Computer and electronic product manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	-	3	1	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing ...	-	3	1	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
<b>BALANCE OF ROCKBRIDGE COUNTY</b>													
31-33	Manufacturing .....	-	23	11	1 887	53 334	1 616	3 379	39 741	123 908	268 700	386 947	9 450
314	Textile product mills .....	-	2	2	g	D	D	D	D	D	D	D	D
3141	Textile furnishings mills .....	-	1	1	g	D	D	D	D	D	D	D	D
31411	Carpet and rug mills .....	-	1	1	g	D	D	D	D	D	D	D	D
314110	Carpet and rug mills .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>BALANCE OF ROCKINGHAM COUNTY</b>													
31-33	Manufacturing .....	-	69	23	i	D	D	D	D	D	D	D	182 810
311	Food manufacturing .....	-	13	8	h	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	8	6	h	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing .....	-	8	6	h	D	D	D	D	D	D	D	D
311615	Poultry processing .....	-	4	4	h	D	D	D	D	D	D	D	D
325	Chemical manufacturing .....	-	3	2	g	D	D	D	D	D	D	D	D
3254	Pharmaceutical and medicine manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing .....	-	2	2	g	D	D	D	D	D	D	D	D
325411	Medicinal and botanical manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>BALANCE OF SCOTT COUNTY</b>													
31-33	Manufacturing .....	-	9	5	f	D	D	D	D	D	D	D	D
<b>BALANCE OF SHENANDOAH COUNTY</b>													
31-33	Manufacturing .....	-	28	13	2 487	69 752	2 126	4 404	54 734	138 087	245 582	381 899	20 812
311	Food manufacturing .....	-	5	4	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing .....	-	3	3	1 078	24 660	981	2 136	22 269	35 116	119 983	154 651	D
31161	Animal slaughtering and processing .....	-	3	3	1 078	24 660	981	2 136	22 269	35 116	119 983	154 651	D
311615	Poultry processing .....	-	2	2	g	D	D	D	D	D	D	D	D

See footnotes at end of table.

**Table 4. Industry Statistics for Places: 2002—Con.**

[Includes data for industry groups and industries with 500 employees or more. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by \*, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E1	All establishments <sup>2</sup>		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
<b>BALANCE OF SMYTH COUNTY</b>													
31-33	Manufacturing .....	-	40	19	3 653	110 546	3 129	6 152	87 325	193 220	343 916	546 146	D
321	Wood product manufacturing .....	-	7	4	f	D	D	D	D	D	D	D	D
3219	Other wood product manufacturing .....	-	5	3	f	D	D	D	D	D	D	D	D
32191	Millwork .....	-	3	3	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing .....	-	3	3	931	25 526	812	1 504	22 781	47 759	136 685	188 677	D
3362	Motor vehicle body and trailer manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer manufacturing .....	-	1	1	f	D	D	D	D	D	D	D	D
336212	Truck trailer manufacturing ..	-	1	1	f	D	D	D	D	D	D	D	D
<b>BALANCE OF SOUTHAMPTON COUNTY</b>													
31-33	Manufacturing .....	-	18	10	2 526	128 379	2 061	4 526	101 401	551 472	373 759	880 773	51 238
322	Paper manufacturing .....	-	1	1	g	D	D	D	D	D	D	D	D
3221	Pulp, paper, and paperboard mills .....	-	1	1	g	D	D	D	D	D	D	D	D
32212	Paper mills .....	-	1	1	g	D	D	D	D	D	D	D	D
322121	Paper (except newsprint) mills .....	-	1	1	g	D	D	D	D	D	D	D	D
<b>BALANCE OF SPOTSYLVANIA COUNTY</b>													
31-33	Manufacturing .....	-	42	17	1 753	63 924	1 368	2 744	45 879	163 292	178 553	340 932	9 536
<b>BALANCE OF STAFFORD COUNTY</b>													
31-33	Manufacturing .....	1	40	6	674	19 538	503	1 022	13 838	58 615	60 139	119 964	7 539
<b>BALANCE OF TAZEWELL COUNTY</b>													
31-33	Manufacturing .....	1	30	9	526	18 084	347	654	9 214	46 183	47 062	93 430	D
<b>BALANCE OF WASHINGTON COUNTY</b>													
31-33	Manufacturing .....	1	54	23	2 068	63 095	1 608	3 254	40 267	193 849	181 178	367 936	D
<b>BALANCE OF YORK COUNTY</b>													
31-33	Manufacturing .....	-	39	7	f	D	D	D	D	D	D	D	D

<sup>1</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of the figures shown: 1-10 to 19 percent; 2-20 to 29 percent; 3-30 to 39 percent; 4-40 to 49 percent; 5-50 to 59 percent; 6-60 to 69 percent; 7-70 to 79 percent; 8-80 to 89 percent; 9-90 percent or more.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Industries with 500 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 500 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: 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.

<sup>4</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

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

**Table 5. Detailed Statistics for the State: 2002**

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
<b>VIRGINIA</b>	
Companies <sup>1</sup> .....	number.. N
All establishments <sup>2</sup> .....	number.. '5 909
Establishments with 1 to 19 employees .....	number.. 4 008
Establishments with 20 to 99 employees .....	number.. '1 273
Establishments with 100 employees or more .....	number.. 628
All employees <sup>3</sup> .....	number.. '311 787
Total compensation .....	\$1,000.. '14 865 560
Annual payroll .....	\$1,000.. '11 632 963
Total fringe benefits .....	\$1,000.. '3 232 597
Production workers, average for year .....	number.. 229 590
Production workers on March 12 .....	number.. 227 141
Production workers on May 12 .....	number.. 231 781
Production workers on August 12 .....	number.. 229 749
Production workers on November 12 .....	number.. 229 237
Production worker hours .....	..1,000.. 462 114
Production worker wages .....	\$1,000.. 7 293 991
Total cost of materials .....	\$1,000.. '35 696 427
Materials, parts, containers, packaging, etc., used .....	\$1,000.. '31 829 483
Resales .....	\$1,000.. '1 839 689
Purchased fuels .....	\$1,000.. '593 865
Purchased electricity .....	\$1,000.. '768 513
Contract work .....	\$1,000.. '664 877
Quantity of electricity purchased for heat and power .....	1,000 kWh.. '18 650 255
Quantity of electricity generated less sold for heat and power .....	1,000 kWh.. D
Total value of shipments .....	\$1,000.. '83 952 547
Value of resales .....	\$1,000.. '2 391 130
Value added .....	\$1,000.. '48 261 833
Total inventories, beginning of year .....	\$1,000.. '9 144 380
Finished goods inventories .....	\$1,000.. '2 864 472
Work-in-process inventories .....	\$1,000.. '1 765 634
Materials and supplies inventories .....	\$1,000.. '4 514 274
Total inventories, end of year .....	\$1,000.. '8 986 690
Finished goods inventories .....	\$1,000.. '2 823 284
Work-in-process inventories .....	\$1,000.. '1 744 050
Materials and supplies inventories .....	\$1,000.. '4 419 356
Gross value of depreciable assets (acquisition costs) at beginning of year .....	\$1,000.. '37 288 101
Total capital expenditures (new and used) .....	\$1,000.. '2 384 729
Buildings and other structures (new and used) .....	\$1,000.. '383 475
Machinery and equipment (new and used) .....	\$1,000.. '2 001 254
Automobiles, trucks, etc., for highway use .....	\$1,000.. '69 077
Computers and peripheral data processing equipment .....	\$1,000.. '140 817
All other expenditures for machinery and equipment .....	\$1,000.. '1 791 360
Total retirements .....	\$1,000.. '1 126 382
Gross value of depreciable assets at end of year .....	\$1,000.. '38 546 448
Depreciation charges during year .....	\$1,000.. '2 259 625
Total rental payments .....	\$1,000.. 568 606
Buildings and other structures .....	\$1,000.. 284 083
Machinery and equipment .....	\$1,000.. 284 523

<sup>1</sup>For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

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

# Appendix A.

## Explanation of Terms

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### **COMPANY**

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

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

If the company operated at different physical locations, even if the individual locations were producing the same 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.

### **Establishment**

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

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

### **PAYROLL**

This item includes the gross earnings of all employees on the payrolls of operating manufacturing establishments paid in the calendar year. 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’ total supplemental labor costs (those required by federal and state laws and those incurred voluntarily or as part of collective bargaining agreements).

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## **TOTAL FRINGE BENEFITS**

This item is the employer's costs for social security tax, unemployment tax, workmen's compensation insurance, state disability insurance pension plans, stock purchase plans, union-negotiated benefits, life insurance premiums, and insurance premiums on hospital and medical plans for employees.

Fringe benefits 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.

## **NUMBER OF 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 that included the 12th of the months specified on the report form. Included are employees on paid sick leave, paid holidays, and paid vacations; not included are proprietors and partners of unincorporated businesses.

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

The "all employees" 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**

The "production workers" number 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**

The "other employees" 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 truck drivers and their helpers), advertising, credit, collection, installation and servicing of own products, clerical and routine office functions, 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 utilized as a separate work force.

## **PRODUCTION-WORKER HOURS**

This item covers all hours worked or paid for at the manufacturing plant, including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the establishment.

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## **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.

Included in this item are:

1. Cost of parts, components, containers, etc. Includes 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. Cost of products bought and sold in the same condition.
3. Cost of fuels consumed for heat and power. 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.
4. Cost of purchased electricity. The cost of purchased electric energy represents the amount actually used during the year for heat and power. In addition, information was 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.
5. Cost of contract work. This term applies to work done by others on materials furnished by the manufacturing establishment. The actual cost of the material is to be reported on the cost of materials, parts, and containers line of this item. The term "Contract Work" refers to the fee a company pays to another company to perform a service.

### **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 that were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. If less than \$25,000 of a listed material was consumed by an establishment, the cost data could be reported in the "Cost of all other materials" Census material code 00970099.

Also, the cost of materials for small establishments for which administrative records or short forms were used was imputed into the "Materials not specified by kind" Census materials code 00971000.

## **QUANTITY OF ELECTRICITY PURCHASED FOR HEAT AND POWER**

Data on the cost of purchased electric energy were collected on all census forms. However, data on the quantity of purchased electric energy were collected only on the Annual Survey of Manufactures (ASM) form. 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.

## **TOTAL VALUE OF SHIPMENTS**

Includes the received or receivable net selling values, "Free on Board" (FOB) 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 sold without further processing. Included are all

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items made by or for the establishments from material 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.

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

1. reported contract work — receipts for work or services that a plant performed for others on their materials;
2. value of resales — sales of products bought and sold without further manufacture, processing, or assembly; and
3. other miscellaneous receipts — includes repair work, installation, sales of scrap, etc.

Industry primary product value of shipments represents one of three components of value of shipments. These components are:

1. primary product value of shipments;
2. secondary product value of shipments; and
3. total miscellaneous receipts.

Primary product shipments is used in the calculations of industry specialization ratio and industry coverage ratio.

### **Duplication in cost of materials and value of shipment**

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 the paper manufacturing 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 that 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.

### **Specialization and coverage ratio**

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.

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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 ratio have been developed to measure the relationship of primary product shipments to the data on shipments for a particular industry.

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.

### **VALUE ADDED**

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, 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.

### **TOTAL END-OF-YEAR INVENTORIES**

This item is comprised of:

- a. Finished products
- b. Work-in-process
- c. Materials, supplies, fuels, etc.

Beginning in 1982, respondents were asked to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior years in which respondents were permitted to value their inventories using any generally accepted accounting method. Therefore, 1982 through 2002 data for inventories are not strictly comparable to prior-year data.

In addition, total beginning-of-year inventories is the sum of several different types of inventory valuations.

Inventory valuations include:

1. Subject to Last-in, first-out (LIFO) costing (including LIFO reserve and value)
2. Not subject to LIFO costing
3. Valuation method not reported, and
4. Amount subject to LIFO reported without associated reserve and value.

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## **GROSS VALUE OF DEPRECIABLE/DEPLETABLE ASSETS AT BEGINNING OF YEAR**

Gross value of depreciable/depletable assets includes all fixed depreciable/depletable assets contained in accounting records of establishments. The values shown (gross book value) represent the actual cost of assets at the time they were acquired. Included are all costs incurred in making the assets usable (such as transportation and installation)

Gross value of depreciable/depletable assets includes:

1. Buildings and other structures (new and used).
2. Machinery and equipment (new and used), including automobiles, trucks, etc. for highway use and computers and peripheral data processing equipment.
3. Retirements.

Excluded are nondepreciable capital assets including inventories and intangible assets.

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.

In addition, respondents were requested to make certain that assets at the beginning of the year plus capital expenditures, less retirements, equaled assets at the end of the year.

## **CAPITAL EXPENDITURES FOR NEW AND USED PLANT AND EQUIPMENT**

Represents the total new and used capital expenditures reported by establishments in operation and any known plants under construction.

These data include expenditures for:

1. Permanent additions and major alterations to manufacturing and mining establishments.
2. New and used machinery and equipment used for replacement and additions to plant capacity, if they are of the type for which depreciation, depletion, or (for mining establishments) Office of Minerals Exploration accounts are ordinarily maintained. In addition, for mining establishments, these data include expenditures made during the year for development and exploration of mineral properties. For manufacturing establishments, these data are broken down into three types.
  - a. Automobiles, trucks, etc. for highway use. These include vehicles acquired under a lease-purchase agreement and excludes vehicles leased or normally designed to transport materials, property, or equipment on mining, construction, petroleum development, and similar projects. These vehicles are of such size or weight as to be normally restricted by state laws or regulations from operating on public highways. It also excludes purchases of vehicles that are purchased by a company for highway use.
  - b. Computers and peripheral data processing equipment. This item includes all purchases of computers and related equipment.
  - c. All other expenditures for machinery and equipment excluding automobiles and computer equipment.

Capital expenditures include work done by contract, as well as by the establishment's own workforce.

These data exclude expenditures for land and mineral rights and cost of maintenance and repairs charged as current operating expenses.

## **RETIREMENTS OF DEPRECIABLE ASSETS**

Included in this item is the gross value of assets sold, retired, scrapped, destroyed, etc., during the calendar year. 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.

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## **RENTAL PAYMENTS**

Total rental payments are 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.

## **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.

# Appendix B.

## NAICS Codes, Titles, and Descriptions

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### **SECTOR 31-33 MANUFACTURING**

The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the activity is appropriately classified in Sector 23, Construction.

Establishments in the Manufacturing sector are often described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment. However, establishments that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public products made on the same premises from which they are sold, such as bakeries, candy stores, and custom tailors, may also be included in this sector. Manufacturing establishments may process materials or may contract with other establishments to process their materials for them. Both types of establishments are included in manufacturing.

The materials, substances, or components transformed by manufacturing establishments are raw materials that are products of agriculture, forestry, fishing, mining, or quarrying as well as products of other manufacturing establishments. The materials used may be purchased directly from producers, obtained through customary trade channels, or secured without recourse to the market by transferring the product from one establishment to another, under the same ownership. The new product of a manufacturing establishment may be finished in the sense that it is ready for utilization or consumption, or it may be semifinished to become an input for an establishment engaged in further manufacturing. For example, the product of the alumina refinery is the input used in the primary production of aluminum; primary aluminum is the input to an aluminum wire drawing plant; and aluminum wire is the input for a fabricated wire product manufacturing establishment.

The subsectors in the Manufacturing sector generally reflect distinct production processes related to material inputs, production equipment, and employee skills. In the machinery area, where assembling is a key activity, parts and accessories for manufactured products are classified in the industry of the finished manufactured item when they are made for separate sale. For example, a replacement refrigerator door would be classified with refrigerators and an attachment for a piece of metal working machinery would be classified with metal working machinery. However, components, input from other manufacturing establishments, are classified based on the production function of the component manufacturer. For example, electronic components are classified in Subsector 334, Computer and Electronic Product Manufacturing and stampings are classified in Subsector 332, Fabricated Metal Product Manufacturing.

Manufacturing establishments often perform one or more activities that are classified outside the Manufacturing sector of NAICS. For instance, almost all manufacturing has some captive research and development or administrative operations, such as accounting, payroll, or management. These captive services are treated the same as captive manufacturing activities. When the services are provided by separate establishments, they are classified to the NAICS sector where such services are primary, not in manufacturing.

The boundaries of manufacturing and the other sectors of the classification system can be somewhat blurry. The establishments in the manufacturing sector are engaged in the transformation of materials into new products. Their output is a new product. However, the definition of what constitutes a new product can be somewhat subjective. As clarification, the following activities are considered manufacturing in NAICS: Milk bottling and pasteurizing; Water bottling and processing;

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Fresh fish packaging (oyster shucking, fish filleting); Apparel jobbing (assigning of materials to contract factories or shops for fabrication or other contract operations) as well as contracting on materials owned by others; Printing and related activities; Ready-mixed concrete production; Leather converting; Grinding of lenses to prescription; Wood preserving; Electroplating, plating, metal heat treating, and polishing for the trade; Lapidary work for the trade; Fabricating signs and advertising displays; Rebuilding or remanufacturing machinery (i.e., automotive parts) Ship repair and renovation; Machine shops; and Tire retreading. Conversely, there are activities that are sometimes considered manufacturing, but which for NAICS are classified in another sector (i.e., not classified as manufacturing).

They include: (1) Logging, classified in Sector 11, Agriculture, Forestry, Fishing and Hunting is considered a harvesting operation; (2) The beneficiating of ores and other minerals, classified in Sector 21, Mining, is considered part of the activity of mining; (3) The construction of structures and fabricating operations performed at the site of construction by contractors, is classified in Sector 23, Construction; (4) Establishments engaged in breaking of bulk and redistribution in smaller lots, including packaging, repackaging, or bottling products, such as liquors or chemicals; the customized assembly of computers; sorting of scrap; mixing paints to customer order; and cutting metals to customer order, classified in Sector 42, Wholesale Trade or Sector 44-45, Retail Trade, produce a modified version of the same product, not a new product; and (5) Publishing and the combined activity of publishing and printing, classified in Sector 51, Information, perform the transformation of information into a product where as the value of the product to the consumer lies in the information content, not in the format in which it is distributed (i.e., the book or software diskette).

### **311 FOOD MANUFACTURING**

Industries in the Food Manufacturing subsector transform livestock and agricultural products into products for intermediate or final consumption. The industry groups are distinguished by the raw materials (generally of animal or vegetable origin) processed into food products.

The food products manufactured in these establishments are typically sold to wholesalers or retailers for distribution to consumers, but establishments primarily engaged in retailing bakery and candy products made on the premises not for immediate consumption are included.

Establishments primarily engaged in manufacturing beverages are classified in Subsector 312, Beverage and Tobacco Product Manufacturing.

#### **3111 ANIMAL FOOD MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing food and feed for animals from ingredients, such as grains, oilseed mill products, and meat products.

##### **31111 ANIMAL FOOD MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing food and feed for animals from ingredients, such as grains, oilseed mill products, and meat products.

##### **311111 DOG AND CAT FOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing dog and cat food from ingredients, such as grains, oilseed mill products, and meat products.

##### **311119 OTHER ANIMAL FOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing animal food (except dog and cat) from ingredients, such as grains, oilseed mill products, and meat products.

#### **3112 GRAIN AND OILSEED MILLING**

This industry group comprises establishments primarily engaged in one or more of the following:

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1. Milling flour or meal from grains or vegetables;
  2. Preparing flour mixes or doughs from flour milled in the same establishment;
  3. Milling, cleaning, and polishing rice; and
  4. Manufacturing malt from barley, rye, or other grains.

### **31121 FLOUR MILLING AND MALT MANUFACTURING**

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

1. Milling flour or meal from grains or vegetables
2. Preparing flour mixes or doughs from flour milled in the same establishment
3. Milling, cleaning, and polishing rice; and
4. Manufacturing malt from barley, rye, or other grains.

### **311211 FLOUR MILLING**

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

1. Milling flour or meal from grains (except rice) or vegetables and/or
2. Milling flour and preparing flour mixes or doughs.

### **311212 RICE MILLING**

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

1. milling rice;
2. cleaning and polishing rice; or
3. milling, cleaning, and polishing rice.

The establishments in this industry may package the rice they mill with other ingredients.

### **311213 MALT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing malt from barley, rye, or other grains.

### **31122 STARCH AND VEGETABLE FATS AND OILS MANUFACTURING**

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

1. Wet milling corn and vegetables;
2. Crushing oilseeds and tree nuts;
3. Refining and/or blending vegetable oils;
4. Manufacturing shortening and margarine; and
5. Blending purchased animal fats with vegetable fats.

### **311221 WET CORN MILLING**

This U.S. industry comprises establishments primarily engaged in wet milling corn and other vegetables (except to make ethyl alcohol). Examples of products made in these establishments are corn sweeteners, such as glucose, dextrose, and fructose; corn oil; and starches (except laundry).

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### **311222 SOYBEAN PROCESSING**

This U.S. industry comprises establishments engaged in crushing soybeans. Examples of products produced in these establishments are soybean oil, soybean cake and meal, and soybean protein isolates and concentrates.

### **311223 OTHER OILSEED PROCESSING**

This U.S. industry comprises establishments engaged in crushing oilseeds (except soybeans) and tree nuts, such as cottonseeds, linseeds, peanuts, and sunflower seeds.

### **311225 FATS AND OILS REFINING AND BLENDING**

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

1. Manufacturing shortening and margarine from purchased fats and oils;
2. Refining and/or blending vegetable, oilseed, and tree nut oils from purchased oils; and
3. Blending purchased animal fats with purchased vegetable fats.

### **31123 BREAKFAST CEREAL MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing breakfast cereal foods.

### **311230 BREAKFAST CEREAL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing breakfast cereal foods.

### **3113 SUGAR AND CONFECTIONERY PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in one of the following:

1. Process agricultural inputs, such as sugarcane, beet, and cacao, to give rise to a new product (sugar or chocolate), and
2. Those that begin with sugar and chocolate and process these further.

### **31131 SUGAR MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing raw sugar, liquid sugar, and refined sugar from sugarcane, raw cane sugar and sugarbeets.

### **311311 SUGARCANE MILLS**

This U.S. industry comprises establishments primarily engaged in processing sugarcane.

### **311312 CANE SUGAR REFINING**

This U.S. industry comprises establishments primarily engaged in refining cane sugar from raw cane sugar.

### **311313 BEET SUGAR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing refined beet sugar from sugarbeets.

### **31132 CHOCOLATE AND CONFECTIONERY MANUFACTURING FROM CACAO BEANS**

This industry comprises establishments primarily engaged in shelling, roasting, and grinding cacao beans and making chocolate cacao products and chocolate confectioneries.

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### **311320 CHOCOLATE AND CONFECTIONERY MANUFACTURING FROM CACAO BEANS**

This U.S. industry comprises establishments primarily engaged in shelling, roasting, and grinding cacao beans and making chocolate cacao products and chocolate confectioneries.

### **31133 CONFECTIONERY MANUFACTURING FROM PURCHASED CHOCOLATE**

This industry comprises establishments primarily engaged in manufacturing chocolate confectioneries from chocolate produced elsewhere. Included in this industry are establishments primarily engaged in retailing chocolate confectionery products not for immediate consumption made on the premises from chocolate made elsewhere.

### **311330 CONFECTIONERY MANUFACTURING FROM PURCHASED CHOCOLATE**

This U.S. industry comprises establishments primarily engaged in manufacturing chocolate confectioneries from chocolate produced elsewhere. Included in this industry are establishments primarily engaged in retailing chocolate confectionery products not for immediate consumption made on the premises from chocolate made elsewhere.

### **31134 NONCHOCOLATE CONFECTIONERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing nonchocolate confectioneries. Included in this industry are establishments primary engaged in retailing nonchocolate confectionery products not for immediate consumption made on the premises.

### **311340 NONCHOCOLATE CONFECTIONERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonchocolate confectioneries. Included in this industry are establishments primary engaged in retailing nonchocolate confectionery products not for immediate consumption made on the premises.

### **3114 FRUIT AND VEGETABLE PRESERVING AND SPECIALTY FOOD MANUFACTURING**

This industry group comprises establishments primarily engaged in the following:

1. Those that freeze food and
2. Those that use preservation processes, such as pickling, canning, and dehydrating.

Both types begin their production process with inputs of vegetable or animal origin.

### **31141 FROZEN FOOD MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing frozen fruit, frozen juices, frozen vegetables, and frozen specialty foods (except seafood), such as frozen dinners, entrees, and side dishes; frozen pizza; frozen whipped toppings; and frozen waffles, pancakes, and french toast.

### **311411 FROZEN FRUIT, JUICE, AND VEGETABLE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing frozen fruits; frozen vegetables; and frozen fruit juices, ades, drinks, cocktail mixes and concentrates.

### **311412 FROZEN SPECIALTY FOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing frozen specialty foods (except seafood), such as frozen dinners, entrees, and side dishes; frozen pizza; frozen whipped topping; and frozen waffles, pancakes, and french toast.

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## **31142 FRUIT AND VEGETABLE CANNING, PICKLING, AND DRYING**

This industry comprises establishments primarily engaged in manufacturing canned, pickled, and dried fruits, vegetables, and specialty foods. Establishments in this industry may package the dried or dehydrated ingredients they make with other purchased ingredients. Examples of products made by these establishments are canned juices; canned baby foods; canned soups (except seafood); canned dry beans; canned tomato-based sauces, such as catsup, salsa, chili, spaghetti, barbeque, and tomato paste, pickles, relishes, jams and jellies, dried soup mixes and bullions, and sauerkraut.

### **311421 FRUIT AND VEGETABLE CANNING**

This U.S. industry comprises establishments primarily engaged in manufacturing canned, pickled, and brined fruits and vegetables. Examples of products made in these establishments are canned juices; canned jams and jellies; canned tomato-based sauces, such as catsup, salsa, chili, spaghetti, barbeque, and tomato paste; pickles, relishes, and sauerkraut.

### **311422 SPECIALTY CANNING**

This U.S. industry comprises establishments primarily engaged in manufacturing canned specialty foods. Examples of products made in these establishments are canned baby food, canned baked beans, canned soups (except seafood), canned spaghetti, and other canned nationality foods.

### **311423 DRIED AND DEHYDRATED FOOD MANUFACTURING**

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

1. Drying (including freeze-dried) and/or dehydrating fruits, vegetables, and soup mixes and bouillon and/or
2. Drying and/or dehydrating ingredients and packaging them with other purchased ingredients, such as rice and dry pasta.

## **3115 DAIRY PRODUCT MANUFACTURING**

This industry group comprises establishments that manufacture dairy products from raw milk, processed milk, and dairy substitutes.

### **31151 DAIRY PRODUCT (EXCEPT FROZEN) MANUFACTURING**

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

1. Manufacturing dairy products (except frozen) from raw milk and/or processed milk products;
2. Manufacturing dairy substitutes (except frozen) from soybeans and other nondairy substances; and
3. Manufacturing dry, condensed, concentrated, and evaporated dairy and dairy substitute products.

### **311511 FLUID MILK MANUFACTURING**

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

1. Manufacturing processed milk products, such as pasteurized milk or cream and sour cream and/or
2. Manufacturing fluid milk dairy substitutes from soybeans and other nondairy substances.

### **311512 CREAMERY BUTTER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing creamery butter from milk and/or processed milk products.

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### **311513 CHEESE MANUFACTURING**

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

1. manufacturing cheese products (except cottage cheese) from raw milk and/or processed milk products and/or
2. manufacturing cheese substitutes from soybean and other nondairy substances.

### **311514 DRY, CONDENSED, AND EVAPORATED DAIRY PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing dry, condensed, and evaporated milk and dairy substitute products.

### **31152 ICE CREAM AND FROZEN DESSERT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing ice cream, frozen yogurts, frozen ices, sherbets, frozen tofu, and other frozen desserts (except bakery products).

### **311520 ICE CREAM AND FROZEN DESSERT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing ice cream, frozen yogurts, frozen ices, sherbets, frozen tofu, and other frozen desserts (except bakery products).

### **3116 ANIMAL SLAUGHTERING AND PROCESSING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Slaughtering animals;
2. Preparing processed meats and meat byproducts; and
3. Rendering and/or refining animal fat, bones, and meat scraps.

This industry includes establishments primarily engaged in assembly cutting and packing of meats (i.e., boxed meats) from purchased carcasses.

### **31161 ANIMAL SLAUGHTERING AND PROCESSING**

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

1. Slaughtering animals;
2. Preparing processed meats and meat byproducts; and
3. Rendering and/or refining animal fat, bones, and meat scraps.

This industry includes establishments primarily engaged in assembly cutting and packing of meats (i.e., boxed meats) from purchased carcasses.

### **311611 ANIMAL (EXCEPT POULTRY) SLAUGHTERING**

This U.S. industry comprises establishments primarily engaged in slaughtering animals (except poultry and small game). Establishments that slaughter and prepare meats are included in this industry.

### **311612 MEAT PROCESSED FROM CARCASSES**

This U.S. industry comprises establishments primarily engaged in processing or preserving meat and meat byproducts (except poultry and small game) from purchased meats. This industry includes establishments primarily engaged in assembly cutting and packing of meats (i.e., boxed meats) from purchased meats.

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### **311613 RENDERING AND MEAT BYPRODUCT PROCESSING**

This U.S. industry comprises establishments primarily engaged in rendering animal fat, bones, and meat scraps.

### **311615 POULTRY PROCESSING**

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

1. slaughtering poultry and small game and/or
2. preparing processed poultry and small game meat and meat byproducts.

### **3117 SEAFOOD PRODUCT PREPARATION AND PACKAGING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Canning seafood (including soup);
2. Smoking, salting, and drying seafood;
3. Eviscerating fresh fish by removing heads, fins, scales, bones, and entrails;
4. Shucking and packing fresh shellfish;
5. Processing marine fats and oils; and
6. Freezing seafood.

Establishments known as “floating factory ships” that are engaged in the gathering and processing of seafood into canned seafood products are also included in this industry group.

### **31171 SEAFOOD PRODUCT PREPARATION AND PACKAGING**

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

1. Canning seafood (including soup);
2. Smoking, salting, and drying seafood;
3. Eviscerating fresh fish by removing heads, fins, scales, bones, and entrails;
4. Shucking and packing fresh shellfish;
5. Processing marine fats and oils; and
6. Freezing seafood.

Establishments known as “floating factory ships” that are engaged in the gathering and processing of seafood into canned seafood products are also included in this industry.

### **311711 SEAFOOD CANNING**

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

1. Canning seafood (including soup) and marine fats and oils and/or
2. Smoking, salting, and drying seafood.

Establishments known as “floating factory ships” that are engaged in the gathering and processing of seafood into canned seafood products are also included in this industry.

### **311712 FRESH AND FROZEN SEAFOOD PROCESSING**

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

1. Eviscerating fresh fish by removing heads, fins, scales, bones, and entrails;
2. Shucking and packing fresh shellfish;

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3. Manufacturing frozen seafood; and
  4. Processing fresh and frozen marine fats and oils.

### **3118 BAKERIES AND TORTILLA MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Bread and bakery product manufacturing;
2. Cookie, cracker, and pasta manufacturing; and
3. Tortilla manufacturing.

### **31181 BREAD AND BAKERY PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing fresh and frozen bread and other bakery products.

#### **311811 RETAIL BAKERIES**

This U.S. industry comprises establishments primarily engaged in retailing bread and other bakery products not for immediate consumption made on the premises from flour, not from prepared dough.

#### **311812 COMMERCIAL BAKERIES**

This U.S. industry comprises establishments primarily engaged in manufacturing fresh and frozen bread and bread-type rolls and other fresh bakery (except cookies and crackers) products.

#### **311813 FROZEN CAKES, PIES, AND OTHER PASTRIES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing frozen bakery products (except bread), such as cakes, pies, and doughnuts.

### **31182 COOKIE, CRACKER, AND PASTA MANUFACTURING**

This industry comprises establishments primarily engaged in one of the following:

1. Manufacturing cookies and crackers;
2. Preparing flour and dough mixes and dough from flour ground elsewhere; and
3. Manufacturing dry pasta.

The establishments in this industry may package the dry pasta they manufacture with other ingredients.

#### **311821 COOKIE AND CRACKER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing cookies, crackers, and other products, such as ice cream cones.

#### **311822 FLOUR MIXES AND DOUGH MANUFACTURING FROM PURCHASED FLOUR**

This U.S. industry comprises establishments primarily engaged in manufacturing prepared flour mixes or dough mixes from flour ground elsewhere.

#### **311823 DRY PASTA MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing dry pasta. The establishments in this industry may package the dry pasta they manufacture with other ingredients.

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### **311821 COOKIE AND CRACKER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing cookies, crackers, and other products, such as ice cream cones.

### **311822 FLOUR MIXES AND DOUGH MANUFACTURING FROM PURCHASED FLOUR**

This U.S. industry comprises establishments primarily engaged in manufacturing prepared flour mixes or dough mixes from flour ground elsewhere.

### **311823 DRY PASTA MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing dry pasta. The establishments in this industry may package the dry pasta they manufacture with other ingredients.

### **31183 TORTILLA MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing tortillas.

### **311830 TORTILLA MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing tortillas.

### **3119 OTHER FOOD MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing food (except animal food; grain and oilseed milling; sugar and confectionery products; preserved fruit, vegetable, and specialty foods; dairy products; meat products; seafood products; and bakeries and tortillas). The industry group includes industries with different productive processes, such as snack food manufacturing; coffee and tea manufacturing; concentrate, syrup, condiment, and spice manufacturing; and, in general, an entire range of other miscellaneous food product manufacturing.

### **31191 SNACK FOOD MANUFACTURING**

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

1. Salting, roasting, drying, cooking, or canning nuts;
2. Processing grains or seeds into snacks;
3. Manufacturing peanut butter; and
4. Manufacturing potato chips, corn chips, popped popcorn, pretzels (except soft), pork rinds, and similar snacks.

### **311911 ROASTED NUTS AND PEANUT BUTTER MANUFACTURING**

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

1. Salting, roasting, drying, cooking, or canning nuts;
2. Processing grains or seeds into snacks; and
3. Manufacturing peanut butter.

### **311919 OTHER SNACK FOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing snack foods (except roasted nuts and peanut butter).

### **31192 COFFEE AND TEA MANUFACTURING**

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

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1. Roasting coffee;
  2. Manufacturing coffee and tea concentrates (including instant and freeze-dried);
  3. Blending tea;
  4. Manufacturing herbal tea; and
  5. Manufacturing coffee extracts, flavorings, and syrups.

### **311920 COFFEE AND TEA MANUFACTURING**

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

1. Roasting coffee;
2. Manufacturing coffee and tea concentrates (including instant and freeze-dried);
3. Blending tea;
4. Manufacturing herbal tea; and
5. Manufacturing coffee extracts, flavorings, and syrups.

### **31193 FLAVORING SYRUP AND CONCENTRATE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing flavoring syrup drink concentrates and related products for soda fountain use or for the manufacture of soft drinks.

#### **311930 FLAVORING SYRUP AND CONCENTRATE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing flavoring syrup drink concentrates and related products for soda fountain use or for the manufacture of soft drinks.

### **31194 SEASONING AND DRESSING MANUFACTURING**

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

1. Manufacturing dressings and sauces, such as mayonnaise, salad dressing, vinegar, mustard, horseradish, soy sauce, tarter sauce, Worcestershire sauce, and other prepared sauces (except tomato-based and gravies);
2. Manufacturing spices, table salt, seasoning, and flavoring extracts (except coffee and meat), and natural food colorings; and
3. Manufacturing dry mix food preparations, such as salad dressing mixes, gravy and sauce mixes, frosting mixes, and other dry mix preparations.

#### **311941 MAYONNAISE, DRESSING, AND OTHER PREPARED SAUCE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing mayonnaise, salad dressing, vinegar, mustard, horseradish, soy sauce, tarter sauce, Worcestershire sauce, and other prepared sauces (except tomato-based and gravy).

#### **311942 SPICE AND EXTRACT MANUFACTURING**

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

1. Manufacturing spices, table salt, seasonings, flavoring extracts (except coffee and meat), and natural food colorings and/or
2. Manufacturing dry mix food preparations, such as salad dressing mixes, gravy and sauce mixes, frosting mixes, and other dry mix preparations.

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### **31199 ALL OTHER FOOD MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing food (except animal food; grain and oilseed milling; sugar and confectionery products; preserved fruits, vegetables, and specialties; dairy products; meat products; seafood products; bakeries and tortillas; snack foods; coffee and tea; flavoring syrups and concentrates; seasonings; and dressings). Included in this industry are establishments primarily engaged in mixing purchased dried and/or dehydrated ingredients including those mixing purchased dried and/or dehydrated ingredients for soup mixes and bouillon.

#### **311991 PERISHABLE PREPARED FOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing perishable prepared foods, such as salads, sandwiches, prepared meals, fresh pizza, fresh pasta, and peeled or cut vegetables.

#### **311999 ALL OTHER MISCELLANEOUS FOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing food (except animal food; grain and oilseed milling; sugar and confectionery products; preserved fruits, vegetables, and specialties; dairy products; meat products; seafood products; bakery and tortillas products; snack foods; coffee and tea; flavoring syrups and concentrates; seasonings and dressings; and perishable prepared food). Included in this industry are establishments primarily engaged in mixing purchased dried and/or dehydrated ingredients including those mixing purchased dried and/or dehydrated ingredients for soup mixes and bouillon.

### **312 BEVERAGE AND TOBACCO PRODUCT MANUFACTURING**

Industries in the Beverage and Tobacco Product Manufacturing subsector manufacture beverages and tobacco products. The industry group, Beverage Manufacturing, includes three types of establishments:

1. Those that manufacture nonalcoholic beverages;
2. Those that manufacture alcoholic beverages through the fermentation process; and
3. Those that produce distilled alcoholic beverages.

Ice manufacturing, while not a beverage, is included with nonalcoholic beverage manufacturing because it uses the same production process as water purification.

In the case of activities related to the manufacture of beverages, the structure follows the defined productive processes. Brandy, a distilled beverage, was not placed under distillery product manufacturing, but rather under the NAICS class for winery product manufacturing since the productive process used in the manufacturing of alcoholic grape-based beverages produces both wines (fermented beverage) and brandies (distilled beverage).

The industry group, Tobacco Manufacturing, includes two types of establishments:

1. Those engaged in redrying and stemming tobacco and,
2. Those that manufacture tobacco products, such as cigarettes and cigars.

#### **3121 BEVERAGE MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing soft drinks; ice; bottled water; breweries; wineries; and/or distilleries.

##### **31211 SOFT DRINK AND ICE MANUFACTURING**

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

1. Manufacturing soft drinks;

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2. Manufacturing ice; and
  3. Purifying and bottling water.

### **312111 SOFT DRINK MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing soft drinks and artificially carbonated waters.

### **312112 BOTTLED WATER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in purifying and bottling water (including naturally carbonated).

### **312113 ICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing ice.

### **31212 BREWERIES**

This industry comprises establishments primarily engaged in brewing beer, ale, malt liquors, and nonalcoholic beer.

### **312120 BREWERIES**

This U.S. industry comprises establishments primarily engaged in brewing beer, ale, malt liquors, and nonalcoholic beer.

### **31213 WINERIES**

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

1. Growing grapes and manufacturing wine and brandies;
2. Manufacturing wine and brandies from grapes and other fruits grown elsewhere; and
3. Blending wines and brandies.

### **312130 WINERIES**

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

1. Growing grapes and manufacturing wine and brandies;
2. Manufacturing wine and brandies from grapes and other fruits grown elsewhere; and
3. Blending wines and brandies.

### **31214 DISTILLERIES**

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

1. Distilling potable liquors (except brandies);
2. Distilling and blending liquors; and
3. Blending and mixing liquors and other ingredients.

### **312140 DISTILLERIES**

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

1. Distilling potable liquors (except brandies);
2. Distilling and blending liquors; and
3. Blending and mixing liquors and other ingredients.

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### **3122 TOBACCO MANUFACTURING**

This industry group comprises establishments primarily engaged in the stemming and redrying of tobacco, and in the manufacturing of tobacco products.

#### **31221 TOBACCO STEMMING AND REDRYING**

This industry comprises establishments primarily engaged in the stemming and redrying of tobacco.

#### **312210 TOBACCO STEMMING AND REDRYING**

This U.S. industry comprises establishments primarily engaged in the stemming and redrying of tobacco.

#### **31222 TOBACCO PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing cigarettes, cigars, smoking and chewing tobacco, and reconstituted tobacco.

#### **312221 CIGARETTE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing cigarettes.

#### **312229 OTHER TOBACCO PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing tobacco products (except cigarettes).

### **313 TEXTILE MILLS**

Industries in the Textile Mills subsector group establishments that transform a basic fiber (natural or synthetic) into a product, such as yarn or fabric, that is further manufactured into usable items, such as apparel, sheets towels, and textile bags for individual or industrial consumption. The further manufacturing may be performed in the same establishment and classified in this subsector, or it may be performed at a separate establishment and be classified elsewhere in manufacturing.

The main processes in this subsector include preparation and spinning of fiber, knitting or weaving of fabric, and the finishing of the textile. The NAICS structure follows and captures this process flow. Major industries in this flow, such as preparation of fibers, weaving of fabric, knitting of fabric, and fiber and fabric finishing, are uniquely identified. Texturizing, throwing, twisting, and winding of yarn contains aspects of both fiber preparation and fiber finishing and is classified with preparation of fibers rather than with finishing of fiber.

NAICS separates the manufacturing of primary textiles and the manufacturing of textile products (except apparel) when the textile product is produced from purchased primary textiles, such as fabric. The manufacturing of textile products (except apparel) from purchased fabric is classified in Subsector 314, Textile Product Mills, and apparel from purchased fabric is classified in Subsector 315, Apparel Manufacturing.

Excluded from this subsector are establishments that weave or knit fabric and make garments. These establishments are included in Subsector 315, Apparel Manufacturing.

#### **3131 FIBER, YARN, AND THREAD MILLS**

This NAICS Industry Group include establishments classified in NAICS Industry 31311, Fiber, Yarn, and Thread Mills.

#### **31311 FIBER, YARN, AND THREAD MILLS**

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

1. spinning yarn

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2. manufacturing thread of any fiber
  3. texturizing, throwing, twisting, and winding purchased yarn or manmade fiber filaments
  4. producing hemp yarn and further processing into rope or bags.

### **313111 YARN SPINNING MILLS**

This U.S. industry comprises establishments primarily engaged in spinning yarn from any fiber and/or producing hemp yarn and further processing into rope or bags.

### **313112 YARN TEXTURIZING, THROWING, AND TWISTING MILLS**

This U.S. industry comprises establishments primarily engaged in texturizing, throwing, twisting, spooling, or winding purchased yarns or manmade fiber filaments.

### **313113 THREAD MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing thread (e.g., sewing, hand-knitting, crochet) of all fibers.

### **3132 FABRIC MILLS**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Broadwoven fabric mills;
2. Narrow fabric mills and schiffli machine embroidery;
3. Nonwoven fabric mills; and
4. Knit fabric mills.

### **31321 BROADWOVEN FABRIC MILLS**

This industry comprises establishments primarily engaged in weaving broadwoven fabrics and felts (except tire fabrics and rugs). Establishments in this industry may weave only, weave and finish, or weave, finish, and further fabricate fabric products.

#### **313210 BROADWOVEN FABRIC MILLS**

This U.S. industry comprises establishments primarily engaged in weaving broadwoven fabrics and felts (except tire fabrics and rugs). Establishments in this industry may weave only, weave and finish, or weave, finish, and further fabricate fabric products.

#### **31322 NARROW FABRIC MILLS AND SCHIFFLI MACHINE EMBROIDERY**

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

1. weaving or braiding narrow fabrics
2. manufacturing Schiffli machine embroideries
3. making fabric-covered elastic yarn and thread.

#### **313221 NARROW FABRIC MILLS**

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

1. weaving or braiding narrow fabrics in their final form or initially made in wider widths that are specially constructed for narrower widths and/or
2. making fabric-covered elastic yarn and thread.

Establishments in this industry may weave only; weave and finish; or weave, finish, and further fabricate fabric products.

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### **313222 SCHIFFLI MACHINE EMBROIDERY**

This U.S. industry comprises establishments primarily engaged in manufacturing Schiffli machine embroideries.

### **31323 NONWOVEN FABRIC MILLS**

This industry comprises establishments primarily engaged in manufacturing nonwoven fabrics and felts. Processes used include bonding and/or interlocking fibers by mechanical, chemical, thermal, or solvent means, or by combinations thereof.

### **313230 NONWOVEN FABRIC MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing nonwoven fabrics and felts. Processes used include bonding and/or interlocking fibers by mechanical, chemical, thermal, or solvent means, or by combinations thereof.

### **31324 KNIT FABRIC MILLS**

This industry comprises establishments primarily engaged in one of the following:

1. knitting weft (i.e., circular) and warp (i.e., flat) fabric
2. knitting and finishing weft and warp fabric
3. manufacturing lace
4. manufacturing, dyeing, and finishing lace and lace goods. Establishments in this industry may knit only; knit and finish; or knit, finish, and further fabricate fabric products (except apparel).

### **313241 WEFT KNIT FABRIC MILLS**

This U.S. industry comprises establishments primarily engaged in knitting weft (i.e., circular) fabric or knitting and finishing weft fabric. Establishments in this industry may knit only; knit and finish; or knit, finish, and further fabricate fabric products (except apparel).

### **313249 OTHER KNIT FABRIC AND LACE MILLS**

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

1. knitting warp (i.e., flat) fabric;
2. knitting and finishing warp fabric;
3. manufacturing lace; or
4. manufacturing, dyeing, or finishing lace and lace goods.

Establishments in this industry may knit only; knit and finish; or knit, finish, and further fabricate fabric products (except apparel).

### **3133 TEXTILE AND FABRIC FINISHING AND FABRIC COATING MILLS**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Textile and fabric finishing mills and
2. Fabric coating mills.

### **31331 TEXTILE AND FABRIC FINISHING MILLS**

This industry comprises:

1. establishments primarily engaged in finishing of textiles, fabrics, and apparel
2. establishments of converters who buy fabric goods in the grey, have them finished on contract, and sell at wholesale. Finishing operations include:

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- a. bleaching
  - b. dyeing
  - c. printing (e.g., roller, screen, flock, plisse)
  - d. stonewashing
  - e. other mechanical finishing (preshrinking, shrinking, sponging, calendering, mercerizing, and napping; as well as cleaning, scouring, and the preparation of natural fibers and raw stock).

### **313311 BROADWOVEN FABRIC FINISHING MILLS**

This U.S. industry comprises:

1. Establishments primarily engaged in finishing broadwoven fabrics
2. Establishments of converters who buy broadwoven fabrics in the grey, have them finished on contract, and sell at wholesale.

### **313312 TEXTILE AND FABRIC FINISHING (EXCEPT BROADWOVEN FABRIC) MILLS**

This U.S. industry comprises:

1. Establishments primarily engaged in dyeing, bleaching, printing, and other finishing of textiles, apparel, and fabrics (except broadwoven)
2. Establishments of converters who buy fabrics (except broadwoven) in the grey, have them finished on contract, and sell at wholesale. Finishing operations include bleaching, dyeing, printing (e.g., roller, screen, flock, plisse), stonewashing, and other mechanical finishing, such as preshrinking, shrinking, sponging, calendering, mercerizing and napping; as well as cleaning, scouring, and the preparation of natural fibers and raw stock.

### **31332 FABRIC COATING MILLS**

This industry comprises establishments primarily engaged in coating, laminating, varnishing, waxing, and rubberizing textiles and apparel.

### **313320 FABRIC COATING MILLS**

This U.S. industry comprises establishments primarily engaged in coating, laminating, varnishing, waxing, and rubberizing textiles and apparel.

### **314 TEXTILE PRODUCT MILLS**

Industries in the Textile Product Mills subsector group establishments that make textile products (except apparel). With a few exceptions, processes used in these industries are generally cut and sew (i.e., purchasing fabric and cutting and sewing to make nonapparel textile products, such as sheets and towels).

### **3141 TEXTILE FURNISHINGS MILLS**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Carpet and rug mills and
2. Curtain and linen mills.

### **31411 CARPET AND RUG MILLS**

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

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1. Manufacturing woven, tufted, and other carpets and rugs, such as art squares, floor mattings, needlepunch carpeting, and door mats and mattings, from textile materials or from twisted paper, grasses, reeds, sisal, jute, or rags and/or
  2. Finishing carpets and rugs.

### **314110 CARPET AND RUG MILLS**

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

1. manufacturing woven, tufted, and other carpets and rugs, such as art squares, floor mattings, needlepunch carpeting, and door mats and mattings, from textile materials or from twisted paper, grasses, reeds, sisal, jute, or rags and/or
2. finishing carpets and rugs.

### **31412 CURTAIN AND LINEN MILLS**

This industry comprises establishments primarily engaged in manufacturing household textile products, such as curtains, draperies, linens, bedspreads, sheets, tablecloths, towels, and shower curtains, from purchased materials.

### **314121 CURTAIN AND DRAPERY MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing window curtains and draperies from purchased fabrics or sheet goods. The curtains and draperies may be made on a stock or custom basis for sale to individual retail customers.

### **314129 OTHER HOUSEHOLD TEXTILE PRODUCT MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing household textile products (except window curtains and draperies), such as bedspreads, sheets, tablecloths, towels, and shower curtains, from purchased materials.

### **3149 OTHER TEXTILE PRODUCT MILLS**

This industry group comprises establishments primarily engaged in making textile products, (except carpets and rugs, curtains and draperies, and other household textile products) from purchased materials.

### **31491 TEXTILE BAG AND CANVAS MILLS**

This industry comprises establishments primarily engaged in manufacturing textile bags, awnings, tents, and related products from purchased textile fabrics.

### **314911 TEXTILE BAG MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing bags from purchased textile fabrics or yarns.

### **314912 CANVAS AND RELATED PRODUCT MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing canvas and canvas-like products, such as awnings, sails, tarpaulins, and tents, from purchased fabrics.

### **31499 ALL OTHER TEXTILE PRODUCT MILLS**

This industry comprises establishments primarily engaged in manufacturing nonapparel textile products (except carpet, rugs, curtains, linens, bags, and canvas products) from purchased materials.

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### **314991 ROPE, CORDAGE, AND TWINE MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing rope, cable, cordage, twine, and related products from all materials (e.g., abaca, sisal, henequen, hemp, cotton, paper, jute, flax, manmade fibers including glass).

### **314992 TIRE CORD AND TIRE FABRIC MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing cord and fabric of polyester, rayon, cotton, glass, steel, or other materials for use in reinforcing rubber tires, industrial belting, and similar uses.

### **314999 ALL OTHER MISCELLANEOUS TEXTILE PRODUCT MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing textile products (except carpets and rugs; curtains and linens; textile bags and canvas products; rope, cordage, and twine; and tire cords and tire fabrics) from purchased materials.

## **315 APPAREL MANUFACTURING**

Industries in the Apparel Manufacturing subsector group establishments with two distinct manufacturing processes:

1. Cut and sew (i.e., purchasing fabric and cutting and sewing to make a garment), and
2. The manufacture of garments in establishments that first knit fabric and then cut and sew the fabric into a garment.

The Apparel Manufacturing subsector includes a diverse range of establishments manufacturing full lines of ready-to-wear apparel and custom apparel: apparel contractors, performing cutting or sewing operations on materials owned by others; jobbers performing entrepreneurial functions involved in apparel manufacture; and tailors, manufacturing custom garments for individual clients are all included. Knitting, when done alone, is classified in the Textile Mills subsector, but when knitting is combined with the production of complete garments, the activity is classified in Apparel Manufacturing.

### **3151 APPAREL KNITTING MILLS**

This industry group comprises establishments primarily engaged in knitting apparel or knitting fabric and then manufacturing apparel. This industry group includes jobbers performing entrepreneurial functions involved in knitting apparel and accessories. Knitting fabric, without manufacturing apparel, is classified in Subsector 313, Textile Mills.

### **31511 HOSIERY AND SOCK MILLS**

This industry comprises establishments primarily engaged in knitting or knitting and finishing hosiery and socks.

#### **315111 SHEER HOSIERY MILLS**

This U.S. industry comprises establishments primarily engaged in knitting or knitting and finishing women's, misses', and girls' full-length and knee-length sheer hosiery (except socks).

#### **315119 OTHER HOSIERY AND SOCK MILLS**

This U.S. industry comprises establishments primarily engaged in knitting or knitting and finishing hosiery (except women's, misses', and girls' sheer hosiery).

### **31519 OTHER APPAREL KNITTING MILLS**

This industry comprises establishments primarily engaged in one of the following:

1. knitting underwear, outerwear, and/or nightwear;

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2. knitting fabric and manufacturing underwear, outerwear, and/or nightwear; or
  3. knitting, manufacturing, and finishing knit underwear, outerwear, and/or nightwear.

### **315191 OUTERWEAR KNITTING MILLS**

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

1. knitting outerwear;
2. knitting fabric and manufacturing outerwear; and
3. knitting, manufacturing, and finishing knit outerwear.

Examples of products made in knit outerwear mills are shirts, shorts, sweat suits, sweaters, gloves, and pants.

### **315192 UNDERWEAR AND NIGHTWEAR KNITTING MILLS**

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

1. knitting underwear and nightwear;
2. knitting fabric and manufacturing underwear and nightwear; or
3. knitting, manufacturing, and finishing knit underwear and nightwear.

Examples of products produced in underwear and nightwear knitting mills are briefs, underwear T-shirts, pajamas, nightshirts, foundation garments, and panties.

### **3152 CUT AND SEW APPAREL MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing cut and sew apparel from woven fabric or purchased knit fabric. Included in this industry group is a diverse range of establishments manufacturing full lines of ready-to-wear apparel and custom apparel: apparel contractors, performing cutting or sewing operations on materials owned by others; jobbers performing entrepreneurial functions involved in apparel manufacture; and tailors, manufacturing custom garments for individual clients. Establishments weaving or knitting fabric, without manufacturing apparel, are classified in Subsector 313, Textile Mills.

### **31521 CUT AND SEW APPAREL CONTRACTORS**

This industry comprises establishments commonly referred to as contractors primarily engaged in one of the following:

1. cutting materials owned by others for apparel and accessories and/or
2. sewing materials owned by others for apparel and accessories.

### **315211 MEN'S AND BOYS' CUT AND SEW APPAREL CONTRACTORS**

This U.S. industry comprises establishments (commonly referred to as contractors) primarily engaged in:

1. cutting materials owned by others for men's and boys' apparel and/or
2. sewing materials owned by others for men's and boys' apparel.

### **315212 WOMEN'S, GIRLS', AND INFANTS' CUT AND SEW APPAREL CONTRACTORS**

This U.S. industry comprises establishments commonly referred to as contractors primarily engaged in one of the following:

1. cutting materials owned by others for women's, girls', and infants' apparel and accessories and/or
2. sewing materials owned by others for women's, girls', and infants' apparel and accessories.

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### **31522 MEN'S AND BOYS' CUT AND SEW APPAREL MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing men's and boys' cut and sew apparel from purchased fabric. Men's and boys' clothing jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included.

### **315221 MEN'S AND BOYS' CUT AND SEW UNDERWEAR AND NIGHTWEAR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing men's and boys' underwear and nightwear from purchased fabric. Men's and boys' underwear and nightwear jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included. Examples of products made by these establishments are briefs, bathrobes, underwear T-shirts and shorts, nightshirts, and pajamas.

### **315222 MEN'S AND BOYS' CUT AND SEW SUIT, COAT, AND OVERCOAT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing men's and boys' suits, overcoats, sport coats, tuxedos, dress uniforms, and other tailored apparel (except fur and leather) from purchased fabric. Men's and boys' suit, coat, and overcoat jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included.

### **315223 MEN'S AND BOYS' CUT AND SEW SHIRT (EXCEPT WORK SHIRT) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing men's and boys' outerwear shirts from purchased fabric. Men's and boys' shirt (except work shirt) jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included. Unisex outerwear shirts, such as T-shirts and sweatshirts that are sized without specific reference to gender (i.e., adult S, M, L, XL) are included in this industry.

### **315224 MEN'S AND BOYS' CUT AND SEW TROUSER, SLACK, AND JEAN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing men's and boys' jeans, dungarees, and other separate trousers and slacks (except work pants) from purchased fabric. Men's and boys' trouser, slack, and jean jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included.

### **315225 MEN'S AND BOYS' CUT AND SEW WORK CLOTHING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing men's and boys' work shirts, work pants (excluding jeans and dungarees), other work clothing, and washable service apparel from purchased fabric. Men's and boys' work clothing jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included. Examples of products made by these establishments are washable service apparel, laboratory coats, work shirts, work pants (except jeans and dungarees), and hospital apparel.

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### **315228 MEN'S AND BOYS' CUT AND SEW OTHER OUTERWEAR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing men's and boys' cut and sew outerwear from purchased fabric (except underwear, nightwear, shirts, suits, overcoats and tailored coats, separate trousers and slacks, and work clothing). Men's and boys' other outerwear jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included. Unisex sweatpants and similar garments that are sized without specific reference to gender (i.e., adult S, M, L, XL) are also included in this industry. Examples of products made by these establishments are athletic clothing (except athletic uniforms), bathing suits, down coats, outerwear shorts, windbreakers and jackets, and jogging suits.

### **31523 WOMEN'S AND GIRLS' CUT AND SEW APPAREL MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing women's and girls' apparel from purchased fabric. Women's and girls' clothing jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included.

### **315231 WOMEN'S AND GIRLS' CUT AND SEW LINGERIE, LOUNGEWEAR, AND NIGHTWEAR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing women's and girls' bras, girdles, and other underwear; lingerie; loungewear; and nightwear from purchased fabric. Women's and girls' lingerie, loungewear, and nightwear jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included. Examples of products made by these establishments are bathrobes, foundation garments, nightgowns, pajamas, panties, and slips.

### **315232 WOMEN'S AND GIRLS' CUT AND SEW BLOUSE AND SHIRT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing women's and girls' blouses and shirts from purchased fabric. Women's and girls' blouse and shirt jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included.

### **315233 WOMEN'S AND GIRLS' CUT AND SEW DRESS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing women's and girls' dresses from purchased fabric. Women's and girls' dress jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included.

### **315234 WOMEN'S AND GIRLS' CUT AND SEW SUIT, COAT, TAILORED JACKET, AND SKIRT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing women's and girls' suits, pantsuits, skirts, tailored jackets, vests, raincoats, and other tailored coats, (except fur and leather coats) from purchased fabric. Women's and girls' suit, coat, tailored jacket, and skirt jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included.

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### **315239 WOMEN'S AND GIRLS' CUT AND SEW OTHER OUTERWEAR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing women's and girls' cut and sew apparel from purchased fabric (except underwear, lingerie, nightwear, blouses, shirts, dresses, suits, tailored coats, tailored jackets, and skirts). Women's and girls' other outerwear clothing jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included. Examples of products made by these establishments are bathing suits, down coats, sweaters, jogging suits, outerwear pants and shorts, and windbreakers.

### **31529 OTHER CUT AND SEW APPAREL MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing cut and sew apparel from purchased fabric (except men's, boys', women's, and girls' apparel). This industry includes establishments manufacturing apparel, such as fur apparel, leather apparel, infants' apparel, costumes, and clerical vestments.

### **315291 INFANTS' CUT AND SEW APPAREL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing infants' dresses, blouses, shirts, and all other infants' wear from purchased fabric. Infants' clothing jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included. For the purposes of classification, the term "infants' apparel" includes apparel for young children of an age not exceeding 24 months.

### **315292 FUR AND LEATHER APPAREL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing cut and sew fur and leather apparel, and sheep-lined clothing. Fur and leather apparel jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included.

### **315299 ALL OTHER CUT AND SEW APPAREL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing cut and sew apparel from purchased fabric (except cut and sew apparel contractors; men's and boys' cut and sew underwear, nightwear, suits, coats, shirts, trousers, work clothing, and other outerwear; women's and girls' lingerie, blouses, shirts, dresses, suits, coats, and other outerwear; infants' apparel; and fur and leather apparel). Clothing jobbers for these products, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included. Examples of products made by these establishments are team athletic uniforms, band uniforms, academic caps and gowns, clerical vestments, and costumes.

### **3159 APPAREL ACCESSORIES AND OTHER APPAREL MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing apparel accessories and other apparel (except apparel knitting mills, apparel contractors, men's and boys' cut and sew apparel, women's and girls' cut and sew apparel, infants' cut and sew apparel, fur and leather apparel, and all other cut and sew apparel). This industry group includes jobbers performing entrepreneurial functions involved in manufacturing apparel accessories.

### **31599 APPAREL ACCESSORIES AND OTHER APPAREL MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing apparel and accessories (except apparel knitting mills, cut and sew apparel contractors, men's and boys' cut and sew apparel, women's and girls' cut and sew apparel, and other cut and sew apparel). Jobbers, who

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perform entrepreneurial functions involved in apparel accessories manufacture, including buying raw materials, designing and preparing samples, arranging for apparel accessories to be made from their materials, and marketing finished apparel accessories, are included. Examples of products made by these establishments are belts, caps, gloves (except medical, sporting, safety), hats, and neckties.

### **315991 HAT, CAP, AND MILLINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing cut and sew hats, caps, millinery, and hat bodies from purchased fabric. Jobbers, who perform entrepreneurial functions involved in hat, cap, and millinery manufacture, including buying raw materials, designing and preparing samples, arranging for hats, caps, and millinery to be made from their materials, and marketing finished hats, caps, and millinery, are included.

### **315992 GLOVE AND MITTEN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing cut and sew gloves (except rubber, metal, and athletic gloves) and mittens from purchased fabric, fur, leather, or from combinations of fabric, fur, or leather. Jobbers, who perform entrepreneurial functions involved in glove and mitten manufacture, including buying raw materials, designing and preparing samples, arranging for gloves and mittens to be made from their materials, and marketing finished gloves and mittens, are included.

### **315993 MEN'S AND BOYS' NECKWEAR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing men's and boys' cut and sew neckties, scarves, and mufflers from purchased fabric, leather, or from combinations of leather and fabric. Men's and boys' neckwear jobbers, who perform entrepreneurial functions involved in neckwear manufacture, including buying raw materials, designing and preparing samples, arranging for neckwear to be made from their materials, and marketing finished neckwear, are included.

### **315999 OTHER APPAREL ACCESSORIES AND OTHER APPAREL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing apparel and apparel accessories (except apparel knitting mills; cut and sew apparel contractors; cut and sew apparel; hats and caps; mittens and gloves; and men's and boys' neckwear). Jobbers for these products, who perform entrepreneurial functions involved in other apparel and accessory manufacture, including buying raw materials, designing and preparing samples, arranging for other apparel and accessories to be made from their materials, and marketing finished other apparel and accessories, are included. Examples of products made by these establishments are apparel trimmings and findings, belts, women's scarves, and suspenders.

### **316 LEATHER AND ALLIED PRODUCT MANUFACTURING**

Establishments in the Leather and Allied Product Manufacturing subsector transform hides into leather by tanning or curing and fabricating the leather into products for final consumption. It also includes the manufacture of similar products from other materials, including products (except apparel) made from "leather substitutes," such as rubber, plastics, or textiles. Rubber footwear, textile luggage, and plastics purses or wallets are examples of "leather substitute" products included in this group. The products made from leather substitutes are included in this subsector because they are made in similar ways leather products are made (e.g., luggage). They are made in the same establishments, so it is not practical to separate them.

The inclusion of leather making in this subsector is partly because leather tanning is a relatively small industry that has few close neighbors as a production process, partly because leather is an input to some of the other products classified in this subsector and partly for historical reasons.

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### **3161 LEATHER AND HIDE TANNING AND FINISHING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Tanning, currying, and finishing hides and skins;
2. Having others process hides and skins on a contract basis; and
3. Dyeing or dressing furs.

### **31611 LEATHER AND HIDE TANNING AND FINISHING**

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

1. tanning, currying, and finishing hides and skins;
2. having others process hides and skins on a contract basis; and
3. dyeing or dressing furs.

### **316110 LEATHER AND HIDE TANNING AND FINISHING**

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

1. tanning, currying, and finishing hides and skins;
2. having others process hides and skins on a contract basis; and
3. dyeing or dressing furs.

### **3162 FOOTWEAR MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing rubber and plastics footwear with vulcanized rubber or plastics soles, molded or cemented to rubber, plastics, or fabric uppers, and rubber and plastics protective footwear.

### **31621 FOOTWEAR MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing footwear (except orthopedic extension footwear).

### **316211 RUBBER AND PLASTICS FOOTWEAR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing rubber and plastics footwear with vulcanized rubber or plastics soles, molded or cemented to rubber, plastics, or fabric uppers, and rubber and plastics protective footwear.

### **316212 HOUSE SLIPPER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing house slippers and slipper socks, regardless of material.

### **316213 MEN'S FOOTWEAR (EXCEPT ATHLETIC) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing men's footwear designed primarily for dress, street, and work. This industry includes men's shoes with rubber or plastics soles and leather or vinyl uppers.

### **316214 WOMEN'S FOOTWEAR (EXCEPT ATHLETIC) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing women's footwear designed for dress, street, and work. This industry includes women's shoes with rubber or plastics soles and leather or vinyl uppers.

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### **316219 OTHER FOOTWEAR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing other footwear (except rubber and plastics footwear; house slippers; men's footwear (except athletic); and women's footwear (except athletic)).

### **3169 OTHER LEATHER AND ALLIED PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing leather products (except footwear and apparel) from purchased leather or leather substitutes (e.g., fabric, plastics).

### **31699 OTHER LEATHER AND ALLIED PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing leather products (except footwear and apparel) from purchased leather or leather substitutes (e.g., fabric, plastics).

### **316991 LUGGAGE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing luggage of any material.

### **316992 WOMEN'S HANDBAG AND PURSE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing women's handbags and purses of any material (except precious metal).

### **316993 PERSONAL LEATHER GOOD (EXCEPT WOMEN'S HANDBAG AND PURSE) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing personal leather goods (i.e., small articles of any material (except metal) normally carried on or about the person or in a handbag). Examples of personal leather goods made by these establishments are billfolds, coin purses, key cases, toilet kits, and watchbands (except metal).

### **316999 ALL OTHER LEATHER GOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing leather goods (except footwear, luggage, handbags, purses, and personal leather goods).

### **321 WOOD PRODUCT MANUFACTURING**

Industries in the Wood Product Manufacturing subsector manufacture wood products, such as lumber, plywood, veneers, wood containers, wood flooring, wood trusses, manufactured homes (i.e., mobile home), and prefabricated wood buildings. The production processes of the Wood Product Manufacturing subsector include sawing, planing, shaping, laminating, and assembling of wood products starting from logs that are cut into bolts, or lumber that then may be further cut, or shaped by lathes or other shaping tools. The lumber or other transformed wood shapes may also be subsequently planed or smoothed, and assembled into finished products, such as wood containers. The Wood Product Manufacturing subsector includes establishments that make wood products from logs and bolts that are sawed and shaped, and establishments that purchase sawed lumber and make wood products. With the exception of sawmills and wood preservation establishments, the establishments are grouped into industries mainly based on the specific products manufactured.

### **3211 SAWMILLS AND WOOD PRESERVATION**

This industry group comprises establishments whose primary production process begins with logs or bolts that are transformed into boards, dimension lumber, beams, timbers, poles, ties, shingles, shakes, siding, and wood chips. Establishments that cut and treat round wood and/or treat wood products made in other establishments to prevent rotting by impregnation with creosote or other chemical compounds are also included in this industry group.

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### **32111 SAWMILLS AND WOOD PRESERVATION**

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

1. sawing dimension lumber, boards, beams, timber, poles, ties, shingles, shakes, siding, and wood chips from logs or bolts;
2. sawing round wood poles, pilings, and posts and treating them with preservatives; and
3. treating wood sawed, planed, or shaped in other establishments with creosote or other preservatives to prevent decay and to protect against fire and insects.

Sawmills may plane the rough lumber that they make with a planing machine to achieve smoothness and uniformity of size.

### **321113 SAWMILLS**

This U.S. industry comprises establishments primarily engaged in sawing dimension lumber, boards, beams, timbers, poles, ties, shingles, shakes, siding, and wood chips from logs or bolts. Sawmills may plane the rough lumber that they make with a planing machine to achieve smoothness and uniformity of size.

### **321114 WOOD PRESERVATION**

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

1. treating wood sawed, planed, or shaped in other establishments with creosote or other preservatives, such as chromated copper arsenate, to prevent decay and to protect against fire and insects and/or
2. sawing round wood poles, pilings, and posts and treating them with preservatives.

### **3212 VENEER, PLYWOOD, AND ENGINEERED WOOD PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Manufacturing veneer and/or plywood;
2. Manufacturing engineered wood members; and
3. Manufacturing reconstituted wood products.

This industry includes manufacturing plywood from veneer made in the same establishment or from veneer made in other establishments, and manufacturing plywood faced with nonwood materials, such as plastics or metal.

### **32121 VENEER, PLYWOOD, AND ENGINEERED WOOD PRODUCT MANUFACTURING**

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

1. manufacturing veneer and/or plywood;
2. manufacturing engineered wood members; and
3. manufacturing reconstituted wood products.

This industry includes manufacturing plywood from veneer made in the same establishment or from veneer made in other establishments, and manufacturing plywood faced with nonwood materials, such as plastics or metal.

### **321211 HARDWOOD VENEER AND PLYWOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing hardwood veneer and/or hardwood plywood.

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### **321212 SOFTWOOD VENEER AND PLYWOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing softwood veneer and/or softwood plywood.

### **321213 ENGINEERED WOOD MEMBER (EXCEPT TRUSS) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated or laminated wood arches and/or other fabricated or laminated wood structural members.

### **321214 TRUSS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing laminated or fabricated wood roof and floor trusses.

### **321219 RECONSTITUTED WOOD PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing reconstituted wood sheets and boards.

### **3219 OTHER WOOD PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing wood products (except establishments operating sawmills and wood preservation facilities; and establishments manufacturing veneer, plywood, or engineered wood products).

### **32191 MILLWORK**

This industry comprises establishments primarily engaged in manufacturing hardwood and softwood cut stock and dimension stock (i.e., shapes); wood windows and wood doors; and other millwork including wood flooring. Dimension stock or cut stock is defined as lumber and worked wood products cut or shaped to specialized sizes. These establishments generally use woodworking machinery, such as jointers, planers, lathes, and routers to shape wood.

### **321911 WOOD WINDOW AND DOOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing window and door units, sash, window and door frames, and doors from wood or wood clad with metal or plastics.

### **321912 CUT STOCK, RESAWING LUMBER, AND PLANING**

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

1. manufacturing dimension lumber from purchased lumber;
2. manufacturing dimension stock (i.e., shapes) or cut stock;
3. resawing the output of sawmills; and
4. planing purchased lumber.

These establishments generally use woodworking machinery, such as jointers, planers, lathes, and routers to shape wood.

### **321918 OTHER MILLWORK (INCLUDING FLOORING)**

This U.S. industry comprises establishments primarily engaged in manufacturing millwork (except wood windows, wood doors, and cut stock).

### **32192 WOOD CONTAINER AND PALLET MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood pallets, wood box shoo, wood boxes, other wood containers, and wood parts for pallets and containers.

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### **321920 WOOD CONTAINER AND PALLET MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood pallets, wood box shoo, wood boxes, other wood containers, and wood parts for pallets and containers.

### **32199 ALL OTHER WOOD PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing wood products (except establishments operating sawmills and wood preservation facilities; and establishments manufacturing veneer, plywood, engineered wood products, millwork, wood containers, or pallets).

### **321991 MANUFACTURED HOME (MOBILE HOME) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in making manufactured homes (i.e., mobile homes) and nonresidential mobile buildings. Manufactured homes are designed to accept permanent water, sewer, and utility connections and although equipped with wheels, they are not intended for regular highway movement.

### **321992 PREFABRICATED WOOD BUILDING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing prefabricated wood buildings and wood sections and panels for prefabricated wood buildings.

### **321999 ALL OTHER MISCELLANEOUS WOOD PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood products (except establishments operating sawmills and preservation facilities; establishments manufacturing veneer, engineered wood products, millwork, wood containers, pallets, and wood container parts; and establishments making manufactured homes (i.e., mobile homes) and prefabricated buildings and components).

## **322 PAPER MANUFACTURING**

Industries in the Paper Manufacturing subsector make pulp, paper, or converted paper products. The manufacturing of these products is grouped together because they constitute a series of vertically connected processes. More than one is often carried out in a single establishment. There are essentially three activities. The manufacturing of pulp involves separating the cellulose fibers from other impurities in wood or used paper. The manufacturing of paper involves matting these fibers into a sheet. Converted paper products are made from paper and other materials by various cutting and shaping techniques and includes coating and laminating activities.

The Paper Manufacturing subsector is subdivided into two industry groups, the first for the manufacturing of pulp and paper and the second for the manufacturing of converted paper products. Paper making is treated as the core activity of the subsector. Therefore, any establishment that makes paper (including paperboard), either alone or in combination with pulp manufacturing or paper converting, is classified as a paper or paperboard mill. Establishments that make pulp without making paper are classified as pulp mills. Pulp mills, paper mills and paperboard mills comprise the first industry group.

Establishments that make products from purchased paper and other materials make up the second industry group, Converted Paper Product Manufacturing. This general activity is then subdivided based, for the most part, on process distinctions. Paperboard container manufacturing uses corrugating, cutting, and shaping machinery to form paperboard into containers. Paper bag and coated and treated paper manufacturing establishments cut and coat paper and foil. Stationery product manufacturing establishments make a variety of paper products used for writing, filing, and similar applications. Other converted paper product manufacturing includes, in particular, the conversion of sanitary paper stock into such things as tissue paper and disposable diapers.

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An important process used in the Paper Bag and Coated and Treated Paper Manufacturing industry is lamination, often combined with coating. Lamination and coating makes a composite material with improved properties of strength, impermeability, and so on. The laminated materials may be paper, metal foil, or plastics film. While paper is often one of the components, it is not always. Lamination of plastics film to plastics film is classified in the NAICS Subsector 326, Plastics and Rubber Products Manufacturing, because establishments that do this often first make the film. The same situation holds with respect to bags. The manufacturing of bags from plastics only, whether or not laminated, is classified in Subsector 326, Plastics and Rubber Products Manufacturing, but all other bag manufacturing is classified in this subsector.

Excluded from this subsector are photosensitive papers. These papers are chemically treated and are classified in Industry 32599, All Other Chemical Product and Preparation Manufacturing.

### **3221 PULP, PAPER, AND PAPERBOARD MILLS**

This industry group comprises establishments primarily engaged in manufacturing pulp, paper, or paperboard.

#### **32211 PULP MILLS**

This industry comprises establishments primarily engaged in manufacturing pulp without manufacturing paper or paperboard. The pulp is made by separating the cellulose fibers from the other impurities in wood or other materials, such as used or recycled rags, linters, scrap paper, and straw.

##### **322110 PULP MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing pulp without manufacturing paper or paperboard. The pulp is made by separating the cellulose fibers from the other impurities in wood or other materials, such as used or recycled rags, linters, scrap paper, and straw.

##### **32212 PAPER MILLS**

This industry comprises establishments primarily engaged in manufacturing paper from pulp. These establishments may manufacture or purchase pulp. In addition, the establishments may convert the paper they make. The activity of making paper classifies an establishment into this industry regardless of the output.

##### **322121 PAPER (EXCEPT NEWSPRINT) MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing paper (except newsprint and uncoated groundwood paper) from pulp. These establishments may manufacture or purchase pulp. In addition, the establishments may also convert the paper they make.

##### **322122 NEWSPRINT MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing newsprint and uncoated groundwood paper from pulp. These establishments may manufacture or purchase pulp. In addition, the establishments may also convert the paper they make.

##### **32213 PAPERBOARD MILLS**

This industry comprises establishments primarily engaged in manufacturing paperboard from pulp. These establishments may manufacture or purchase pulp. In addition, the establishments may also convert the paperboard they make.

##### **322130 PAPERBOARD MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing paperboard from pulp. These establishments may manufacture or purchase pulp. In addition, the establishments may also convert the paperboard they make.

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## **3222 CONVERTED PAPER PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in converting paper or paperboard without manufacturing paper or paperboard.

### **32221 PAPERBOARD CONTAINER MANUFACTURING**

This industry comprises establishments primarily engaged in converting paperboard into containers without manufacturing paperboard. These establishments use corrugating, cutting, and shaping machinery to form paperboard into containers. Products made by these establishments include boxes; corrugated sheets, pads, and pallets; paper dishes; and fiber drums and reels.

#### **322211 CORRUGATED AND SOLID FIBER BOX MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in laminating purchased paper or paperboard into corrugated or solid fiber boxes and related products, such as pads, partitions, pallets, and corrugated paper without manufacturing paperboard. These boxes are generally used for shipping.

#### **322212 FOLDING PAPERBOARD BOX MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting paperboard (except corrugated) into folding paperboard boxes without manufacturing paper and paperboard.

#### **322213 SETUP PAPERBOARD BOX MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting paperboard into setup paperboard boxes (i.e., rigid-sided boxes not shipped flat) without manufacturing paperboard.

#### **322214 FIBER CAN, TUBE, DRUM, AND SIMILAR PRODUCTS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting paperboard into fiber cans, tubes, drums, and similar products without manufacturing paperboard.

#### **322215 NONFOLDING SANITARY FOOD CONTAINER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting sanitary foodboard into food containers (except folding).

### **32222 PAPER BAG AND COATED AND TREATED PAPER MANUFACTURING**

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

1. cutting and coating paper and paperboard;
2. cutting and laminating paper and paperboard and other flexible materials (except plastics film to plastics film);
3. manufacturing bags or multiwall bags or sacks of paper, metal foil, coated paper, or laminates or coated combinations of paper and foil with plastics film;
4. manufacturing laminated aluminum and other converted metal foils from purchased foils; and
5. surface coating paper or paperboard.

### **322221 COATED AND LAMINATED PACKAGING PAPER AND PLASTICS FILM MANUFACTURING**

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

1. cutting and coating paper and

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2. cutting and laminating paper with other flexible materials (except plastics to plastics or foil to paper laminates).

The products made in this industry are made from purchased sheet materials and may be printed in the same establishment.

### **322222 COATED AND LAMINATED PAPER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in performing one or more of the following activities associated with making products designed for purposes other than packaging:

1. cutting and coating paper;
2. cutting and laminating paper and other flexible materials (except plastics film to plastics film); and
3. laminating aluminum and other metal foils for nonpackaging uses from purchased foils.

The products made in this industry are made from purchased sheet materials and may be printed in the same establishment.

### **322223 PLASTICS, FOIL, AND COATED PAPER BAG MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing bags of coated paper, of metal foil, or of laminated or coated combinations of plastics, foil, and paper, whether or not printed.

### **322224 UNCOATED PAPER AND MULTIWALL BAG MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing uncoated paper bags or multiwall bags and sacks.

### **322225 LAMINATED ALUMINUM FOIL MANUFACTURING FOR FLEXIBLE PACKAGING USES**

This U.S. industry comprises establishments primarily engaged in laminating aluminum and other metal foil into products with flexible packaging uses or gift wrap and other packaging wrap applications.

### **322226 SURFACE-COATED PAPERBOARD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in laminating, lining, or surface coating purchased paperboard to make other paperboard products.

### **32223 STATIONERY PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in converting paper or paperboard into products used for writing, filing, art work, and similar applications.

### **322231 DIE-CUT PAPER AND PAPERBOARD OFFICE SUPPLIES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting paper rollstock or paperboard into die-cut paper or paperboard office supplies. For the purpose of this industry, office supplies are defined as office products, such as filing folders, index cards, rolls for adding machines, file separators and dividers, tabulating cards, and other paper and paperboard office supplies.

### **322232 ENVELOPE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing envelopes for mailing or stationery of any material including combinations.

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### **322233 STATIONERY, TABLET, AND RELATED PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting paper and paperboard into products used for writing and similar applications (e.g., looseleaf fillers, notebooks, pads, stationery, and tablets).

### **32229 OTHER CONVERTED PAPER PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in one of the following:

1. converting paper and paperboard into products (except containers, bags, coated and treated paper and paperboard, and stationery products), or
2. converting pulp into pulp products, such as disposable diapers, or molded pulp egg cartons, food trays, and dishes.

Processes used include laminating or lining purchased paper or paperboard.

### **322291 SANITARY PAPER PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting purchased sanitary paper stock or wadding into sanitary paper products, such as facial tissues and handkerchiefs, table napkins, toilet paper, towels, disposable diapers, sanitary napkins, and tampons.

### **322299 ALL OTHER CONVERTED PAPER PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting paper or paperboard into products (except containers, bags, coated and treated paper, stationery products, and sanitary paper products) or converting pulp into pulp products, such as egg cartons, food trays, and other food containers from molded pulp.

### **323 PRINTING AND RELATED SUPPORT ACTIVITIES**

Industries in the Printing and Related Support Activities subsector print products, such as newspapers, books, labels, business cards, stationery, business forms, and other materials, and perform support activities, such as data imaging, platemaking services, and bookbinding. The support activities included here are an integral part of the printing industry, and a product (a printing plate, a bound book, or a computer disk or file) that is an integral part of the printing industry is almost always provided by these operations.

Processes used in printing include a variety of methods used to transfer an image from a plate, screen, film, or computer file to some medium, such as paper, plastics, metal, textile articles, or wood. The most prominent of these methods is to transfer the image from a plate or screen to the medium (lithographic, gravure, screen, and flexographic printing). A rapidly growing new technology uses a computer file to directly “drive” the printing mechanism to create the image and new electrostatic and other types of equipment (digital or nonimpact printing).

In contrast to many other classification systems that locate publishing of printed materials in manufacturing, NAICS classifies the publishing of printed products in Subsector 511, Publishing Industries (except Internet). Though printing and publishing are often carried out by the same enterprise (a newspaper, for example), it is less and less the case that these distinct activities are carried out in the same establishment. When publishing and printing are done in the same establishment, the establishment is classified in Sector 51, Information, in the appropriate NAICS industry even if the receipts for printing exceed those for publishing.

This subsector includes printing on clothing because the production process for that activity is printing, not clothing manufacturing. For instance, the printing of T-shirts is included in this subsector. In contrast, printing on fabric (or grey goods) is not included. This activity is part of the process of finishing the fabric and is included in the NAICS Textile Mills subsector in Industry 31331, Textile and Fabric Finishing Mills.

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## **3231 PRINTING AND RELATED SUPPORT ACTIVITIES**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Printing on apparel and textile products, paper, metal, glass, plastics, and other materials, except fabric (grey goods) and/or
2. Performing prepress (e.g., platemaking, typesetting) and postpress services (e.g., book binding) in support of printing activities.

### **32311 PRINTING**

This industry comprises establishments primarily engaged in printing on apparel and textile products, paper, metal, glass, plastics, and other materials, except fabric (grey goods). The printing processes employed include, but are not limited to, lithographic, gravure, screen, flexographic, digital, and letterpress. Establishments in this industry do not manufacture the stock that they print but may perform postprinting activities, such as folding, cutting, or laminating the materials they print, and mailing.

#### **323110 COMMERCIAL LITHOGRAPHIC PRINTING**

This U.S. industry comprises establishments primarily engaged in lithographic (i.e., offset) printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in lithographic printing on purchased stock materials, such as stationery, letterhead, invitations, labels, and similar items, on a job order basis.

#### **323111 COMMERCIAL GRAVURE PRINTING**

This U.S. industry comprises establishments primarily engaged in gravure printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in gravure printing on purchased stock materials, such as stationery, letterhead, invitations, labels, and similar items, on a job order basis.

#### **323112 COMMERCIAL FLEXOGRAPHIC PRINTING**

This U.S. industry comprises establishments primarily engaged in flexographic printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in flexographic printing on purchased stock materials, such as stationery, invitations, labels, and similar items, on a job order basis.

#### **323113 COMMERCIAL SCREEN PRINTING**

This U.S. industry comprises establishments primarily engaged in screen printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in screen printing on purchased stock materials, such as stationery, invitations, labels, and similar items, on a job order basis. Establishments primarily engaged in printing on apparel and textile products, such as T-shirts, caps, jackets, towels, and napkins, are included in this industry.

#### **323114 QUICK PRINTING**

This U.S. industry comprises establishments primarily engaged in traditional printing activities, such as short-run offset printing or prepress services, in combination with providing document photocopying service. Prepress services include receiving documents in electronic format and directly duplicating from the electronic file and formatting, colorizing, and otherwise modifying the original document to improve presentation. These establishments, known as quick printers, generally provide short-run printing and copying with fast turnaround times.

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### **323115 DIGITAL PRINTING**

This U.S. industry comprises establishments primarily engaged in printing graphical materials using digital printing equipment. Establishments known as digital printers typically provide sophisticated prepress services including using scanners to input images and computers to manipulate and format the graphic images prior to printing.

### **323116 MANIFOLD BUSINESS FORMS PRINTING**

This U.S. industry comprises establishments primarily engaged in printing special forms, including checkbooks, for use in the operation of a business. The forms may be in single and multiple sets, including carbonized, interleaved with carbon, or otherwise processed for multiple reproduction.

### **323117 BOOKS PRINTING**

This U.S. industry comprises establishments primarily engaged in printing or printing and binding books and pamphlets without publishing.

### **323118 BLANKBOOK, LOOSELEAF BINDERS, AND DEVICES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing blankbooks, looseleaf devices, and binders. Establishments in this industry may print or print and bind.

### **323119 OTHER COMMERCIAL PRINTING**

This U.S. industry comprises establishments primarily engaged in commercial printing (except lithographic, gravure, screen, or flexographic printing) without publishing (except books, grey goods, and manifold business forms). Printing processes included in this industry are letterpress printing and engraving printing. This industry includes establishments engaged in commercial printing on purchased stock materials, such as stationery, invitations, labels, and similar items, on a job order basis.

### **32312 SUPPORT ACTIVITIES FOR PRINTING**

This industry comprises establishments primarily engaged in performing prepress (e.g., platemaking, typesetting) and postpress services (e.g., book binding) in support of printing activities.

### **323121 TRADEBINDING AND RELATED WORK**

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

1. tradebinding;
2. sample mounting; and
3. postpress services (e.g., book or paper bronzing, die-cutting, edging, embossing, folding, gilding, gluing, indexing).

### **323122 PREPRESS SERVICES**

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

1. prepress services, such as imagesetting or typesetting, for printers and
2. preparing film or plates for printing purposes.

### **324 PETROLEUM AND COAL PRODUCTS MANUFACTURING**

The Petroleum and Coal Products Manufacturing subsector is based on the transformation of crude petroleum and coal into usable products. The dominant process is petroleum refining that involves the separation of crude petroleum into component products through such techniques as cracking and distillation.

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In addition, this subsector includes establishments that primarily further process refined petroleum and coal products and produce products, such as asphalt coatings and petroleum lubricating oils. However, establishments that manufacture petrochemicals from refined petroleum are classified in Industry 32511, Petrochemical Manufacturing.

### **3241 PETROLEUM AND COAL PRODUCTS MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Petroleum refineries manufacturing;
2. Asphalt paving, roofing, and saturated materials manufacturing; and/or
3. Other petroleum and coal products manufacturing.

#### **32411 PETROLEUM REFINERIES**

This industry comprises establishments primarily engaged in refining crude petroleum into refined petroleum. Petroleum refining involves one or more of the following activities:

1. fractionation;
2. straight distillation of crude oil; and
3. cracking.

##### **324110 PETROLEUM REFINERIES**

This U.S. industry comprises establishments primarily engaged in refining crude petroleum into refined petroleum. Petroleum refining involves one or more of the following activities:

1. fractionation;
2. straight distillation of crude oil; and
3. cracking.

#### **32412 ASPHALT PAVING, ROOFING, AND SATURATED MATERIALS MANUFACTURING**

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

1. manufacturing asphalt and tar paving mixtures and blocks and roofing cements and coatings from purchased asphaltic materials and/or
2. saturating purchased mats and felts with asphalt or tar from purchased asphaltic materials.

##### **324121 ASPHALT PAVING MIXTURE AND BLOCK MANUFACTURING**

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

##### **324122 ASPHALT SHINGLE AND COATING MATERIALS MANUFACTURING**

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

1. saturating purchased mats and felts with asphalt or tar from purchased asphaltic materials and
2. manufacturing asphalt and tar and roofing cements and coatings from purchased asphaltic materials.

#### **32419 OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING**

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

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### **324191 PETROLEUM LUBRICATING OIL AND GREASE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in blending or compounding refined petroleum to make lubricating oils and greases and/or re-refining used petroleum lubricating oils.

### **324199 ALL OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING**

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

### **325 CHEMICAL MANUFACTURING**

The Chemical Manufacturing subsector is based on the transformation of organic and inorganic raw materials by a chemical process and the formulation of products. This subsector distinguishes the production of basic chemicals that comprise the first industry group from the production of intermediate and end products produced by further processing of basic chemicals that make up the remaining industry groups.

This subsector does not include all industries transforming raw materials by a chemical process. It is common for some chemical processing to occur during mining operations. These beneficiating operations, such as copper concentrating, are classified in Sector 21, Mining. Furthermore, the refining of crude petroleum is included in Subsector 324, Petroleum and Coal Products Manufacturing. In addition, the manufacturing of aluminum oxide is included in Subsector 331, Primary Metal Manufacturing; and beverage distilleries are classified in Subsector 312, Beverage and Tobacco Product Manufacturing. As in the case of these two activities, the grouping of industries into subsectors may take into account the association of the activities performed with other activities in the subsector.

### **3251 BASIC CHEMICAL MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing chemicals using basic processes, such as thermal cracking and distillation. Chemicals manufactured in this industry group are usually separate chemical elements or separate chemically-defined compounds.

### **32511 PETROCHEMICAL MANUFACTURING**

This industry comprises establishments primarily engaged in one of the following:

1. manufacturing acyclic (i.e., aliphatic) hydrocarbons such as ethylene, propylene, and butylene made from refined petroleum or liquid hydrocarbon and/or
2. manufacturing cyclic aromatic hydrocarbons such as benzene, toluene, styrene, xylene, ethyl benzene, and cumene made from refined petroleum or liquid hydrocarbons.

### **325110 PETROCHEMICAL MANUFACTURING**

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

1. manufacturing acyclic (i.e., aliphatic) hydrocarbons such as ethylene, propylene, and butylene made from refined petroleum or liquid hydrocarbon and/or
2. manufacturing cyclic aromatic hydrocarbons such as benzene, toluene, styrene, xylene, ethyl benzene, and cumene made from refined petroleum or liquid hydrocarbons.

### **32512 INDUSTRIAL GAS MANUFACTURING**

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

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### **325120 INDUSTRIAL GAS MANUFACTURING**

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

### **32513 SYNTHETIC DYE AND PIGMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing synthetic organic and inorganic dyes and pigments, such as lakes and toners (except electrostatic and photographic).

### **325131 INORGANIC DYE AND PIGMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing inorganic dyes and pigments.

### **325132 SYNTHETIC ORGANIC DYE AND PIGMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing synthetic organic dyes and pigments, such as lakes and toners (except electrostatic and photographic).

### **32518 OTHER BASIC INORGANIC CHEMICAL MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing basic inorganic chemicals (except industrial gases and synthetic dyes and pigments).

### **325181 ALKALIES AND CHLORINE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing chlorine, sodium hydroxide (i.e., caustic soda), and other alkalies often using an electrolysis process.

### **325182 CARBON BLACK MANUFACTURING**

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

### **325188 ALL OTHER BASIC INORGANIC CHEMICAL MANUFACTURING**

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

### **32519 OTHER BASIC ORGANIC CHEMICAL MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing basic organic chemicals (except petrochemicals, industrial gases, and synthetic dyes and pigments).

### **325191 GUM AND WOOD CHEMICAL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in (1) distilling wood or gum into products, such as tall oil and wood distillates, and (2) manufacturing wood or gum chemicals, such as naval stores, natural tanning materials, charcoal briquettes, and charcoal (except activated).

### **325192 CYCLIC CRUDE AND INTERMEDIATE MANUFACTURING**

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

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### **325193 ETHYL ALCOHOL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonpotable ethyl alcohol.

### **325199 ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING**

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

### **3252 RESIN, SYNTHETIC RUBBER, AND ARTIFICIAL AND SYNTHETIC FIBERS AND FILAMENTS MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Resin and synthetic rubber manufacturing and
2. Artificial and synthetic fibers and filaments manufacturing.

### **32521 RESIN AND SYNTHETIC RUBBER MANUFACTURING**

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

1. manufacturing synthetic resins, plastics materials, and nonvulcanizable elastomers and mixing and blending resins on a custom basis;
2. manufacturing noncustomized synthetic resins; and
3. manufacturing synthetic rubber.

### **325211 PLASTICS MATERIAL AND RESIN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in

1. manufacturing resins, plastics materials, and nonvulcanizable thermoplastic elastomers and mixing and blending resins on a custom basis and/or
2. manufacturing noncustomized synthetic resins.

### **325212 SYNTHETIC RUBBER MANUFACTURING**

This U.S. industry consists of establishments primarily engaged in manufacturing synthetic rubber.

### **32522 ARTIFICIAL AND SYNTHETIC FIBERS AND FILAMENTS MANUFACTURING**

This industry comprises establishments primarily engaged in one of the following:

1. manufacturing cellulosic (i.e., rayon and acetate) and noncellulosic (i.e., nylon, polyolefin, and polyester) fibers and filaments in the form of monofilament, filament yarn, staple, or tow or
2. manufacturing and texturing cellulosic and noncellulosic fibers and filaments.

### **325221 CELLULOSIC ORGANIC FIBER MANUFACTURING**

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

1. manufacturing cellulosic (i.e., rayon and acetate) fibers and filaments in the form of monofilament, filament yarn, staple, or tow or
2. manufacturing and texturizing cellulosic fibers and filaments.

### **325222 NONCELLULOSIC ORGANIC FIBER MANUFACTURING**

This U.S. industry consists of establishments primarily engaged in one of the following:

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1. manufacturing noncellulosic (i.e., nylon, polyolefin, and polyester) fibers and filaments in the form of monofilament, filament yarn, staple, or tow, or
  2. manufacturing and texturizing noncellulosic fibers and filaments.

### **3253 PESTICIDE, FERTILIZER, AND OTHER AGRICULTURAL CHEMICAL MANUFACTURING**

This industry group includes establishments classified in one of the following:

1. Fertilizer manufacturing and/or
2. Pesticide and other agricultural chemical manufacturing.

#### **32531 FERTILIZER MANUFACTURING**

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

1. manufacturing nitrogenous or phosphatic fertilizer materials;
2. manufacturing fertilizers from sewage or animal waste;
3. manufacturing nitrogenous or phosphatic materials and mixing with other ingredients into fertilizers; and
4. mixing ingredients made elsewhere into fertilizers.

#### **325311 NITROGENOUS FERTILIZER MANUFACTURING**

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

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

#### **325312 PHOSPHATIC FERTILIZER MANUFACTURING**

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

1. manufacturing phosphatic fertilizer materials or
2. manufacturing phosphatic materials and mixing them into fertilizers.

#### **325314 FERTILIZER (MIXING ONLY) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in mixing ingredients made elsewhere into fertilizers.

#### **32532 PESTICIDE AND OTHER AGRICULTURAL CHEMICAL MANUFACTURING**

This industry comprises establishments primarily engaged in the formulation and preparation of agricultural and household pest control chemicals (except fertilizers).

#### **325320 PESTICIDE AND OTHER AGRICULTURAL CHEMICAL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in the formulation and preparation of agricultural and household pest control chemicals (except fertilizers).

#### **3254 PHARMACEUTICAL AND MEDICINE MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Manufacturing biological and medicinal products;
2. Processing (i.e., grading, grinding, and milling) botanical drugs and herbs;

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3. Isolating active medicinal principals from botanical drugs and herbs; and
  4. Manufacturing pharmaceutical products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

### **32541 PHARMACEUTICAL AND MEDICINE MANUFACTURING**

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

1. manufacturing biological and medicinal products;
2. processing (i.e., grading, grinding, and milling) botanical drugs and herbs;
3. isolating active medicinal principals from botanical drugs and herbs; and
4. manufacturing pharmaceutical products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

### **325411 MEDICINAL AND BOTANICAL MANUFACTURING**

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

1. manufacturing uncompounded medicinal chemicals and their derivatives (i.e., generally for use by pharmaceutical preparation manufacturers) and/or
2. grading, grinding, and milling uncompounded botanicals.

### **325412 PHARMACEUTICAL PREPARATION MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing in-vivo diagnostic substances and pharmaceutical preparations (except biological) intended for internal and external consumption in dose forms, such as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

### **325413 IN-VITRO DIAGNOSTIC SUBSTANCE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing in-vitro (i.e., not taken internally) diagnostic substances, such as chemical, biological, or radioactive substances. The substances are used for diagnostic tests that are performed in test tubes, petri dishes, machines, and other diagnostic test-type devices.

### **325414 BIOLOGICAL PRODUCT (EXCEPT DIAGNOSTIC) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing vaccines, toxoids, blood fractions, and culture media of plant or animal origin (except diagnostic).

### **3255 PAINT, COATING, AND ADHESIVE MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Paint and coating manufacturing and/or
2. Adhesive manufacturing.

### **32551 PAINT AND COATING MANUFACTURING**

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

1. mixing pigments, solvents, and binders into paints and other coatings, such as stains, varnishes, lacquers, enamels, shellacs, and water repellent coatings for concrete and masonry, and/or

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2. manufacturing allied paint products, such as putties, paint and varnish removers, paint brush cleaners, and frit.

### **325510 PAINT AND COATING MANUFACTURING**

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

1. mixing pigments, solvents, and binders into paints and other coatings, such as stains, varnishes, lacquers, enamels, shellacs, and water repellent coatings for concrete and masonry and/or
2. manufacturing allied paint products, such as putties, paint and varnish removers, paint brush cleaners, and frit.

### **32552 ADHESIVE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing adhesives, glues, and caulking compounds.

### **325520 ADHESIVE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing adhesives, glues, and caulking compounds.

### **3256 SOAP, CLEANING COMPOUND, AND TOILET PREPARATION MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Soap and cleaning compound manufacturing and/or
2. Toilet preparation manufacturing.

### **32561 SOAP AND CLEANING COMPOUND MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and packaging soap and other cleaning compounds, surface active agents, and textile and leather finishing agents used to reduce tension or speed the drying process.

### **325611 SOAP AND OTHER DETERGENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and packaging soaps and other detergents, such as laundry detergents; dishwashing detergents; toothpaste gels and tooth powders; and natural glycerin.

### **325612 POLISH AND OTHER SANITATION GOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and packaging polishes and specialty cleaning preparations.

### **325613 SURFACE ACTIVE AGENT MANUFACTURING**

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

1. manufacturing bulk surface active agents for use as wetting agents, emulsifiers, and penetrants, and/or
2. manufacturing textiles and leather finishing agents used to reduce tension or speed the drying process.

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### **32562 TOILET PREPARATION MANUFACTURING**

This industry comprises establishments primarily engaged in preparing, blending, compounding, and packaging toilet preparations, such as perfumes, shaving preparations, hair preparations, face creams, lotions (including sunscreens), and other cosmetic preparations.

### **325620 TOILET PREPARATION MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in preparing, blending, compounding, and packaging toilet preparations, such as perfumes, shaving preparations, hair preparations, face creams, lotions (including sunscreens), and other cosmetic preparations.

### **3259 OTHER CHEMICAL PRODUCT AND PREPARATION MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals; resins, synthetic rubber, cellulosic and noncellulosic fibers and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings, and adhesives; soaps and cleaning compounds; and toilet preparations).

### **32591 PRINTING INK MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing printing and inkjet inks and inkjet cartridges.

### **325910 PRINTING INK MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing printing and inkjet inks and inkjet cartridges.

### **32592 EXPLOSIVES MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing explosives.

### **325920 EXPLOSIVES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing explosives.

### **32599 ALL OTHER CHEMICAL PRODUCT AND PREPARATION MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals, resins, and synthetic rubber; cellulosic and noncellulosic fibers and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings, and adhesives; and soaps, cleaning compounds, and toilet preparations; printing inks; and explosives).

### **325991 CUSTOM COMPOUNDING OF PURCHASED RESINS**

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

1. custom mixing and blending plastics resins made elsewhere or
2. reformulating plastics resins from recycled plastics products.

### **325992 PHOTOGRAPHIC FILM, PAPER, PLATE, AND CHEMICAL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing sensitized film, sensitized paper, sensitized cloth, sensitized plates, toners (i.e., for photocopiers, laser printers, and similar electrostatic printing devices), toner cartridges, and photographic chemicals.

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## **325998 ALL OTHER MISCELLANEOUS CHEMICAL PRODUCT AND PREPARATION MANUFACTURING**

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

## **326 PLASTICS AND RUBBER PRODUCTS MANUFACTURING**

Industries in the Plastics and Rubber Products Manufacturing subsector make goods by processing plastics materials and raw rubber. The core technology employed by establishments in this subsector is that of plastics or rubber product production. Plastics and rubber are combined in the same subsector because plastics are increasingly being used as a substitute for rubber; however the subsector is generally restricted to the production of products made of just one material, either solely plastics or rubber.

Many manufacturing activities use plastics or rubber, for example the manufacture of footwear, or furniture. Typically, the production process of these products involves more than one material. In these cases, technologies that allow disparate materials to be formed and combined are of central importance in describing the manufacturing activity. In NAICS, such activities (the footwear and furniture manufacturing) are not classified in the Plastics and Rubber Products Manufacturing subsector because the core technologies for these activities are diverse and involve multiple materials.

Within the Plastics and Rubber Products Manufacturing subsector, a distinction is made between plastics and rubber products at the industry group level, although it is not a rigid distinction, as can be seen from the definition of Industry 32622, Rubber and Plastics Hoses and Belting Manufacturing. As materials technology progresses, plastics are increasingly being used as a substitute for rubber; and eventually, the distinction may disappear as a basis for establishment classification.

In keeping with the core technology focus of plastics, lamination of plastics film to plastics film as well as the production of bags from plastics only is classified in this subsector. Lamination and bag production involving plastics and materials other than plastics are classified in the NAICS Subsector 322, Paper Manufacturing.

## **3261 PLASTICS PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in processing new or spent (i.e., recycled) plastics resins into intermediate or final products, using such processes as compression molding; extrusion molding; injection molding; blow molding; and casting. Within most of these industries, the production process is such that a wide variety of products can be made.

### **32611 PLASTICS PACKAGING MATERIALS AND UNLAMINATED FILM AND SHEET MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. converting plastics resins into unsupported plastics film and sheet and/or
2. forming, coating or laminating plastics film and sheet into plastics bags.

### **326111 PLASTICS BAG MANUFACTURING**

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

1. converting plastics resins into plastics bags or

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2. forming, coating, or laminating plastics film and sheet into single wall or multiwall plastics bags.

Establishments in this industry may print on the bags they manufacture.

### **326112 PLASTICS PACKAGING FILM AND SHEET (INCLUDING LAMINATED) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting plastics resins into plastics packaging (flexible) film and packaging sheet.

### **326113 UNLAMINATED PLASTICS FILM AND SHEET (EXCEPT PACKAGING) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting plastics resins into plastics film and un laminated sheet (except packaging).

### **32612 PLASTICS PIPE, PIPE FITTING, AND UNLAMINATED PROFILE SHAPE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing plastics pipes and pipe fittings, and plastics profile shapes such as rod, tube, and sausage casings.

### **326121 UNLAMINATED PLASTICS PROFILE SHAPE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting plastics resins into nonrigid plastics profile shapes (except film, sheet, and bags), such as rod, tube, and sausage casings.

### **326122 PLASTICS PIPE AND PIPE FITTING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting plastics resins into rigid plastics pipes and pipe fittings.

### **32613 LAMINATED PLASTICS PLATE, SHEET (EXCEPT PACKAGING), AND SHAPE MANUFACTURING**

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

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

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

### **32614 POLYSTYRENE FOAM PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing polystyrene foam products.

### **326140 POLYSTYRENE FOAM PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing polystyrene foam products.

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### **32615 URETHANE AND OTHER FOAM PRODUCT (EXCEPT POLYSTYRENE) MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing plastics foam products (except polystyrene).

### **326150 URETHANE AND OTHER FOAM PRODUCT (EXCEPT POLYSTYRENE) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing plastics foam products (except polystyrene).

### **32616 PLASTICS BOTTLE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing plastics bottles.

### **326160 PLASTICS BOTTLE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing plastics bottles.

### **32619 OTHER PLASTICS PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing resilient floor covering and other plastics products (except film, sheet, bags, profile shapes, pipes, pipe fittings, laminates, foam products, and bottles).

### **326191 PLASTICS PLUMBING FIXTURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing plastics or fiberglass plumbing fixtures. Examples of products made by these establishments are plastics or fiberglass bathtubs, hot tubs, portable toilets, and shower stalls.

### **326192 RESILIENT FLOOR COVERING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing resilient floor coverings for permanent installation.

### **326199 ALL OTHER PLASTICS PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing plastics products (except film, sheet, bags, profile shapes, pipes, pipe fittings, laminates, foam products, bottles, plumbing fixtures, and resilient floor coverings).

### **3262 RUBBER PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in processing natural, and synthetic or reclaimed rubber materials into intermediate or final products using processes such as vulcanizing, cementing, molding, extruding, and lathe-cutting.

### **32621 TIRE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing tires and inner tubes from natural and synthetic rubber and retreading or rebuilding tires.

### **326211 TIRE MANUFACTURING (EXCEPT RETREADING)**

This U.S. industry comprises establishments primarily engaged in manufacturing tires and inner tubes from natural and synthetic rubber.

### **326212 TIRE RETREADING**

This U.S. industry comprises establishments primarily engaged in retreading or rebuilding tires.

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### **32622 RUBBER AND PLASTICS HOSES AND BELTING MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing rubber hose and/or plastics (reinforced) hose and belting from natural and synthetic rubber and/or plastics resins. Establishments manufacturing garden hoses from purchased hose are included in this industry.

### **326220 RUBBER AND PLASTICS HOSES AND BELTING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing rubber hose and/or plastics (reinforced) hose and belting from natural and synthetic rubber and/or plastics resins. Establishments manufacturing garden hoses from purchased hose are included in this industry.

### **32629 OTHER RUBBER PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing rubber products (except tires, hoses, and belting) from natural and synthetic rubber.

### **326291 RUBBER PRODUCT MANUFACTURING FOR MECHANICAL USE**

This U.S. industry comprises establishments primarily engaged in molding, extruding, or lathe-cutting rubber to manufacture rubber goods (except tubing) for mechanical applications. Products of this industry are generally parts for motor vehicles, machinery, and equipment.

### **326299 ALL OTHER RUBBER PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing rubber products (except tires; hoses and belting; and molded, extruded, and lathe-cut rubber goods for mechanical applications) from natural and synthetic rubber.

### **327 NONMETALLIC MINERAL PRODUCT MANUFACTURING**

The Nonmetallic Mineral Product Manufacturing subsector transforms mined or quarried nonmetallic minerals, such as sand, gravel, stone, clay, and refractory materials, into products for intermediate or final consumption. Processes used include grinding, mixing, cutting, shaping, and honing. Heat often is used in the process and chemicals are frequently mixed to change the composition, purity, and chemical properties for the intended product. For example, glass is produced by heating silica sand to the melting point (sometimes combined with cullet or recycled glass) and then drawn, floated, or blow molded to the desired shape or thickness. Refractory materials are heated and then formed into bricks or other shapes for use in industrial applications. The Nonmetallic Mineral Product Manufacturing subsector includes establishments that manufacture products, such as bricks, refractories, ceramic products, and glass and glass products, such as plate glass and containers. Also included are cement and concrete products, lime, gypsum and other nonmetallic mineral products including abrasive products, ceramic plumbing fixtures, statuary, cut stone products, and mineral wool. The products are used in a wide range of activities from construction and heavy and light manufacturing to articles for personal use.

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

Excluded from the Nonmetallic Mineral Product Manufacturing subsector are establishments that primarily beneficiate mined nonmetallic minerals. Beneficiation is the process whereby the extracted material is reduced to particles that can be separated into mineral and waste, the former suitable for further processing or direct use. Beneficiation establishments are included in Sector 21, Mining.

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## **3271 CLAY PRODUCT AND REFRACTORY MANUFACTURING**

This industry group comprises establishments primarily engaged in shaping, molding, glazing, and firing pottery, ceramics, and plumbing fixtures made entirely or partly of clay or other ceramic materials and/or shaping, molding, baking, burning, or hardening clay refractories, non-clay refractories, ceramic tile, structural clay tile, brick, and other structural clay building materials.

### **32711 POTTERY, CERAMICS, AND PLUMBING FIXTURE MANUFACTURING**

This industry comprises establishments primarily engaged in shaping, molding, glazing, and firing pottery, ceramics, and plumbing fixtures made entirely or partly of clay or other ceramic materials.

#### **327111 VITREOUS CHINA PLUMBING FIXTURE AND CHINA AND EARTHENWARE BATHROOM ACCESSORIES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing vitreous china plumbing fixtures and china and earthenware bathroom accessories, such as faucet handles, towel bars, and soap dishes.

#### **327112 VITREOUS CHINA, FINE EARTHENWARE, AND OTHER POTTERY PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing table and kitchen articles, art and ornamental items, and similar vitreous china, fine earthenware, stoneware, coarse earthenware, and pottery products.

#### **327113 PORCELAIN ELECTRICAL SUPPLY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing porcelain electrical insulators, molded porcelain parts for electrical devices, ferrite or ceramic magnets, and electronic and electrical supplies from nonmetallic minerals, such as clay and ceramic materials.

### **32712 CLAY BUILDING MATERIAL AND REFRACTORIES MANUFACTURING**

This industry comprises establishments primarily engaged in shaping, molding, baking, burning, or hardening clay refractories, nonclay refractories, ceramic tile, structural clay tile, brick, and other structural clay building materials.

#### **327121 BRICK AND STRUCTURAL CLAY TILE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing brick and structural clay tiles.

#### **327122 CERAMIC WALL AND FLOOR TILE MANUFACTURING**

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

#### **327123 OTHER STRUCTURAL CLAY PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing clay sewer pipe, drain tile, flue lining tile, architectural terra-cotta, and other structural clay products.

#### **327124 CLAY REFRACTORY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing clay refractory, mortar, brick, block, tile, and fabricated clay refractories, such as melting pots. A refractory is a material that will retain its shape and chemical identity when subjected to high temperatures and is used in applications that require extreme resistance to heat, such as furnace linings.

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### **327125 NONCLAY REFRACTORY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonclay refractory, mortar, brick, block, tile, and fabricated nonclay refractories such as graphite, magnesite, silica, or alumina crucibles. A refractory is a material that will retain its shape and chemical identity when subjected to high temperatures and is used in applications that require extreme resistance to heat, such as furnace linings.

### **3272 GLASS AND GLASS PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing glass and/or glass products. Establishments in this industry may manufacture glass and/or glass products by melting silica sand or cullet, or purchasing glass.

### **32721 GLASS AND GLASS PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing glass and/or glass products. Establishments in this industry may manufacture glass and/or glass products by melting silica sand or cullet, or purchasing glass.

### **327211 FLAT GLASS MANUFACTURING**

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

1. manufacturing flat glass by melting silica sand or cullet; or
2. manufacturing both flat glass and laminated glass by melting silica sand or cullet.

### **327212 OTHER PRESSED AND BLOWN GLASS AND GLASSWARE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing glass by melting silica sand or cullet and making pressed, blown, or shaped glass or glassware (except glass packaging containers).

### **327213 GLASS CONTAINER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing glass packaging containers.

### **327215 GLASS PRODUCT MANUFACTURING MADE OF PURCHASED GLASS**

This U.S. industry comprises establishments primarily engaged in coating, laminating, tempering, or shaping purchased glass.

### **3273 CEMENT AND CONCRETE PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Cement manufacturing;
2. Ready-mix concrete manufacturing;
3. Concrete pipe, brick, and block manufacturing; and/or
4. Other concrete product manufacturing.

### **32731 CEMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing portland, natural, masonry, pozzalanic, and other hydraulic cements. Cement manufacturing establishments may calcine earths or mine, quarry, manufacture, or purchase lime.

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### **327310 CEMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing portland, natural, masonry, pozzalanic, and other hydraulic cements. Cement manufacturing establishments may calcine earths or mine, quarry, manufacture, or purchase lime.

### **32732 READY-MIX CONCRETE MANUFACTURING**

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

### **327320 READY-MIX CONCRETE MANUFACTURING**

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

### **32733 CONCRETE PIPE, BRICK, AND BLOCK MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing concrete pipe, brick, and block.

### **327331 CONCRETE BLOCK AND BRICK MANUFACTURING**

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

### **327332 CONCRETE PIPE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing concrete pipe.

### **32739 OTHER CONCRETE PRODUCT MANUFACTURING**

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

### **327390 OTHER CONCRETE PRODUCT MANUFACTURING**

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

### **3274 LIME AND GYPSUM PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing lime from calcitic limestone, dolomitic limestone, or other calcareous materials, such as coral, chalk, and shells and/or gypsum products such as wallboard, plaster, plasterboard, molding, ornamental moldings, statuary, and architectural plaster work.

### **32741 LIME MANUFACTURING**

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

### **327410 LIME MANUFACTURING**

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

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### **32742 GYPSUM PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing gypsum products such as wallboard, plaster, plasterboard, molding, ornamental moldings, statuary, and architectural plaster work. Gypsum product manufacturing establishments may mine, quarry, or purchase gypsum.

### **327420 GYPSUM PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing gypsum products such as wallboard, plaster, plasterboard, molding, ornamental moldings, statuary, and architectural plaster work. Gypsum product manufacturing establishments may mine, quarry, or purchase gypsum.

### **3279 OTHER NONMETALLIC MINERAL PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except clay products, refractory products, glass products, cement and concrete products, lime, and gypsum products).

### **32791 ABRASIVE PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing abrasive grinding wheels of natural or synthetic materials, abrasive-coated products, and other abrasive products.

### **327910 ABRASIVE PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing abrasive grinding wheels of natural or synthetic materials, abrasive-coated products, and other abrasive products.

### **32799 ALL OTHER NONMETALLIC MINERAL PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except pottery, ceramics, and plumbing fixtures; clay building materials and refractories; glass and glass products; cement; ready-mix concrete; concrete products; lime; gypsum products; and abrasive products).

### **327991 CUT STONE AND STONE PRODUCT MANUFACTURING**

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

### **327992 GROUND OR TREATED MINERAL AND EARTH MANUFACTURING**

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

### **327993 MINERAL WOOL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing mineral wool and mineral wool (i.e., fiberglass) insulation products made of such siliceous materials as rock, slag, and glass or combinations thereof.

### **327999 ALL OTHER MISCELLANEOUS NONMETALLIC MINERAL PRODUCT MANUFACTURING**

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

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### **331 PRIMARY METAL MANUFACTURING**

Industries in the Primary Metal Manufacturing subsector smelt and/or refine ferrous and nonferrous metals from ore, pig or scrap, using electrometallurgical and other process metallurgical techniques. Establishments in this subsector also manufacture metal alloys and superalloys by introducing other chemical elements to pure metals. The output of smelting and refining, usually in ingot form, is used in rolling, drawing, and extruding operations to make sheet, strip, bar, rod, or wire, and in molten form to make castings and other basic metal products.

Primary manufacturing of ferrous and nonferrous metals begins with ore or concentrate as the primary input. Establishments manufacturing primary metals from ore and/or concentrate remain classified in the primary smelting, primary refining, or iron and steel mill industries regardless of the form of their output. Establishments primarily engaged in secondary smelting and/or secondary refining recover ferrous and nonferrous metals from scrap and/or dross. The output of the secondary smelting and/or secondary refining industries is limited to shapes, such as ingot or billet, that will be further processed. Recovery of metals from scrap often occurs in establishments that are primarily engaged in activities, such as rolling, drawing, extruding, or similar processes.

Excluded from the Primary Metal Manufacturing subsector are establishments primarily engaged in manufacturing ferrous and nonferrous forgings (except ferrous forgings made in steel mills) and stampings. Although forging, stamping, and casting are all methods used to make metal shapes, forging and stamping do not use molten metals and are included in Subsector 332, Fabricated Metal Product Manufacturing. Establishments primarily engaged in operating coke ovens are classified in Industry 32419, Other Petroleum and Coal Products Manufacturing.

#### **3311 IRON AND STEEL MILLS AND FERROALLOY MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Direct reduction of iron ore;
2. Manufacturing pig iron in molten or solid form;
3. Converting pig iron into steel;
4. Manufacturing ferroalloys;
5. Making steel;
6. Making steel and manufacturing shapes (e.g., bar, plate, rod, sheet, strip, and wire); and
7. Making steel and forming pipe and tube.

#### **33111 IRON AND STEEL MILLS AND FERROALLOY MANUFACTURING**

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2. manufacturing pig iron in molten or solid form;
3. converting pig iron into steel;
4. manufacturing ferroalloys;
5. making steel;
6. making steel and manufacturing shapes (e.g., bar, plate, rod, sheet, strip, and wire); and
7. making steel and forming pipe and tube.

#### **331111 IRON AND STEEL MILLS**

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

1. direct reduction of iron ore;

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2. manufacturing pig iron in molten or solid form;
  3. converting pig iron into steel;
  4. making steel;
  5. making steel and manufacturing shapes (e.g., bar, plate, rod, sheet, strip, wire); and
  6. making steel and forming tube and pipe.

### **331112 ELECTROMETALLURGICAL FERROALLOY PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electrometallurgical ferroalloys. Ferroalloys add critical elements, such as silicon and manganese for carbon steel and chromium, vanadium, tungsten, titanium, and molybdenum for low- and high-alloy metals. Ferroalloys include iron-rich alloys and more pure forms of elements added during the steel manufacturing process that alter or improve the characteristics of the metal being made.

### **3312 STEEL PRODUCT MANUFACTURING FROM PURCHASED STEEL**

This industry group comprises establishments primarily engaged in manufacturing iron and steel tube and pipe; drawing steel wire; and rolling or drawing shapes from purchased iron or steel.

#### **33121 IRON AND STEEL PIPE AND TUBE MANUFACTURING FROM PURCHASED STEEL**

This industry comprises establishments primarily engaged in manufacturing welded, riveted, or seamless pipe and tube from purchased iron or steel.

#### **331210 IRON AND STEEL PIPE AND TUBE MANUFACTURING FROM PURCHASED STEEL**

This U.S. industry comprises establishments primarily engaged in manufacturing welded, riveted, or seamless pipe and tube from purchased iron or steel.

#### **33122 ROLLING AND DRAWING OF PURCHASED STEEL**

This industry comprises establishments primarily engaged in rolling and/or drawing steel shapes, such as plate, sheet, strip, rod, and bar, from purchased steel.

##### **331221 ROLLED STEEL SHAPE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in rolling or drawing shapes (except wire), such as plate, sheet, strip, rod, and bar, from purchased steel.

##### **331222 STEEL WIRE DRAWING**

This U.S. industry comprises establishments primarily engaged in drawing wire from purchased steel.

### **3313 ALUMINA AND ALUMINUM PRODUCTION AND PROCESSING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Refining alumina;
2. Making (i.e., the primary production) aluminum from alumina;
3. Recovering aluminum from scrap or dross;
4. Alloying purchased aluminum; and
5. Manufacturing aluminum primary forms (e.g., bar, foil, pipe, plate, rod, sheet, tube, and wire).

#### **33131 ALUMINA AND ALUMINUM PRODUCTION AND PROCESSING**

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

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1. refining alumina;
  2. making (i.e., the primary production) aluminum from alumina;
  3. recovering aluminum from scrap or dross;
  4. alloying purchased aluminum; and
  5. manufacturing aluminum primary forms (e.g., bar, foil, pipe, plate, rod, sheet, tube, and wire).

### **331311 ALUMINA REFINING**

This U.S. industry comprises establishments primarily engaged in refining alumina (i.e., aluminum oxide) generally from bauxite.

### **331312 PRIMARY ALUMINUM PRODUCTION**

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

1. making aluminum from alumina and/or
2. making aluminum from alumina and rolling, drawing, extruding, or casting the aluminum they make into primary forms (e.g., bar, billet, ingot, plate, rod, sheet, and strip).

Establishments in this industry may make primary aluminum or aluminum-based alloys from alumina.

### **331314 SECONDARY SMELTING AND ALLOYING OF ALUMINUM**

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

1. recovering aluminum and aluminum alloys from scrap and/or dross (i.e., secondary smelting) and making billet or ingot (except by rolling) and/or
2. manufacturing alloys, powder, paste, or flake from purchased aluminum.

### **331315 ALUMINUM SHEET, PLATE, AND FOIL MANUFACTURING**

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

1. flat rolling or continuous casting sheet, plate, foil, and welded tube from purchased aluminum and/or
2. recovering aluminum from scrap and flat rolling or continuous casting sheet, plate, foil, and welded tube in integrated mills.

### **331316 ALUMINUM EXTRUDED PRODUCT MANUFACTURING**

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

1. extruding aluminum bar, pipe, and tube blooms or extruding or drawing tube from purchased aluminum and/or
2. recovering aluminum from scrap and extruding bar, pipe, and tube blooms or drawing tube in integrated mills.

### **331319 OTHER ALUMINUM ROLLING AND DRAWING**

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

1. rolling, drawing, or extruding shapes (except flat rolled sheet, plate, foil, and welded tube; extruded rod, bar, pipe, and tube blooms; and drawn or extruded tube) from purchased aluminum and/or
2. recovering aluminum from scrap and rolling, drawing or extruding shapes (except flat rolled sheet, plate, foil, and welded tube; extruded rod, bar, pipe, and tube blooms; and drawn or extruded tube) in integrated mills.

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### **3314 NONFERROUS METAL (EXCEPT ALUMINUM) PRODUCTION AND PROCESSING**

This industry group comprises establishments primarily engaged in one of the following:

1. Nonferrous metal (except aluminum) smelting and refining;
2. Copper rolling, drawing, extruding, and alloying; and/or
3. Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying.

#### **33141 NONFERROUS METAL (EXCEPT ALUMINUM) SMELTING AND REFINING**

This industry comprises establishments primarily engaged in:

1. smelting ores into nonferrous metals and/or
2. the primary refining of nonferrous metals (except aluminum) using electrolytic or other processes.

##### **331411 PRIMARY SMELTING AND REFINING OF COPPER**

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

1. smelting copper ore and/or
2. the primary refining of copper by electrolytic methods or other processes.

Establishments in this industry make primary copper and copper-based alloys, such as brass and bronze, from ore or concentrates.

##### **331419 PRIMARY SMELTING AND REFINING OF NONFERROUS METAL (EXCEPT COPPER AND ALUMINUM)**

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

1. making (primary production) nonferrous metals by smelting ore and/or
2. the primary refining of nonferrous metals by electrolytic methods or other processes.

#### **33142 COPPER ROLLING, DRAWING, EXTRUDING, AND ALLOYING**

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

1. recovering copper or copper alloys from scraps;
2. alloying purchased copper;
3. rolling, drawing, or extruding shapes, (e.g., bar, plate, sheet, strip, tube, wire) from purchased copper; and
4. recovering copper or copper alloys from scrap and rolling drawing, or extruding shapes (e.g., bar, plate, sheet, strip, tube, wire).

##### **331421 COPPER ROLLING, DRAWING, AND EXTRUDING**

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

1. rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube (except bare or insulated copper communication or energy wire)) from purchased copper and/or
2. recovering copper from scrap and rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube (except bare or insulated copper communication or energy wire) in integrated mills.

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### **331422 COPPER WIRE (EXCEPT MECHANICAL) DRAWING**

This U.S. industry comprises establishments primarily engaged in drawing or drawing and insulating communication and energy wire and cable from purchased copper or in integrated secondary smelting and wire drawing plants.

### **331423 SECONDARY SMELTING, REFINING, AND ALLOYING OF COPPER**

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

1. recovering copper and copper alloys from scrap and/or
2. alloying purchased copper.

Establishments in this industry make primary forms, such as ingot, wire bar, cake, and slab from copper or copper alloys, such as brass and bronze.

### **33149 NONFERROUS METAL (EXCEPT COPPER AND ALUMINUM) ROLLING, DRAWING, EXTRUDING, AND ALLOYING**

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

1. recovering nonferrous metals (except copper and aluminum) and nonferrous metal alloys from scrap;
2. alloying purchased nonferrous metals (except copper and aluminum);
3. rolling, drawing, and extruding shapes from purchased nonferrous metals (except copper and aluminum); and
4. recovering nonferrous metals from scrap (except copper and aluminum) and rolling, drawing, or extruding shapes in integrated facilities.

### **331491 NONFERROUS METAL (EXCEPT COPPER AND ALUMINUM) ROLLING, DRAWING, AND EXTRUDING**

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

1. rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube) from purchased nonferrous metals and/or
2. recovering nonferrous metals from scrap and rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube) in integrated mills.

### **331492 SECONDARY SMELTING, REFINING, AND ALLOYING OF NONFERROUS METAL (EXCEPT COPPER AND ALUMINUM)**

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

1. alloying purchased nonferrous metals and/or
2. recovering nonferrous metals from scrap.

Establishments in this industry make primary forms (e.g., bar, billet, bloom, cake, ingot, slab, slug, and wire) using smelting or refining processes.

### **3315 FOUNDRIES**

This industry group comprises establishments primarily engaged in pouring molten metal into molds or dies to form castings. Establishments making castings and further manufacturing, such as machining or assembling, a specific manufactured product are classified in the industry of the finished product. Foundries may perform operations, such as cleaning and deburring, on the castings they manufacture. More involved processes, such as tapping, threading, milling, or machining to tight tolerances, that transform castings into more finished products are classified elsewhere in the manufacturing sector based on the product being made.

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Establishments in this industry group make castings from purchased metals or in integrated secondary smelting and casting facilities. When the production of primary metals is combined with making castings, the establishment is classified in 331 with the primary metal being made.

### **33151 FERROUS METAL FOUNDRIES**

This industry comprises establishments primarily engaged in pouring molten iron and steel into molds of a desired shape to make castings. Establishments in this industry purchase iron and steel made in other establishments.

#### **331511 IRON FOUNDRIES**

This U.S. industry comprises establishments primarily engaged in pouring molten pig iron or iron alloys into molds to manufacture castings (e.g., cast iron manhole covers, cast iron pipe, cast iron skillets). Establishments in this industry purchase iron made in other establishments.

#### **331512 STEEL INVESTMENT FOUNDRIES**

This U.S. industry comprises establishments primarily engaged in manufacturing steel investment castings. Investment molds are formed by covering a wax shape with a refractory slurry. After the refractory slurry hardens, the wax is melted, leaving a seamless mold. Investment molds provide highly detailed, consistent castings. Establishments in this industry purchase steel made in other establishments.

#### **331513 STEEL FOUNDRIES (EXCEPT INVESTMENT)**

This U.S. industry comprises establishments primarily engaged in manufacturing steel castings (except steel investment castings). Establishments in this industry purchase steel made in other establishments.

#### **33152 NONFERROUS METAL FOUNDRIES**

This industry comprises establishments primarily engaged in pouring and/or introducing molten nonferrous metal, under high pressure, into metal molds or dies to manufacture castings. Establishments in this industry purchase nonferrous metals made in other establishments.

#### **331521 ALUMINUM DIE-CASTING FOUNDRIES**

This U.S. industry comprises establishments primarily engaged in introducing molten aluminum, under high pressure, into molds or dies to make aluminum die-castings. Establishments in this industry purchase aluminum made in other establishments.

#### **331522 NONFERROUS (EXCEPT ALUMINUM) DIE-CASTING FOUNDRIES**

This U.S. industry comprises establishments primarily engaged in introducing molten nonferrous metal (except aluminum), under high pressure, into molds to make nonferrous metal die-castings. Establishments in this industry purchase nonferrous metals made in other establishments.

#### **331524 ALUMINUM FOUNDRIES (EXCEPT DIE-CASTING)**

This U.S. industry comprises establishments primarily engaged in pouring molten aluminum into molds to manufacture aluminum castings. Establishments in this industry purchase aluminum made in other establishments.

#### **331525 COPPER FOUNDRIES (EXCEPT DIE-CASTING)**

This U.S. industry comprises establishments primarily engaged in pouring molten copper into molds to manufacture copper castings. Establishments in this industry purchase copper made in other establishments.

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### **331528 OTHER NONFERROUS FOUNDRIES (EXCEPT DIE-CASTING)**

This U.S. industry comprises establishments primarily engaged in pouring molten nonferrous metals (except aluminum and copper) into molds to manufacture nonferrous castings (except aluminum die-castings, nonferrous (except aluminum) die-castings, aluminum castings, and copper castings). Establishments in this industry purchase nonferrous metals, such as nickel, lead, and zinc, made in other establishments.

### **332 FABRICATED METAL PRODUCT MANUFACTURING**

Industries in the Fabricated Metal Product Manufacturing subsector transform metal into intermediate or end products, other than machinery, computers and electronics, and metal furniture or treating metals and metal formed products fabricated elsewhere. Important fabricated metal processes are forging, stamping, bending, forming, and machining, used to shape individual pieces of metal; and other processes, such as welding and assembling, used to join separate parts together. Establishments in this subsector may use one of these processes or a combination of these processes.

The NAICS structure for this subsector distinguishes the forging and stamping processes in a single industry. The remaining industries, in the subsector, group establishments based on similar combinations of processes used to make products.

The manufacturing performed in the Fabricated Metal Product Manufacturing subsector begins with manufactured metal shapes. The establishments in this sector further fabricate the purchased metal shapes into a product. For instance, the Spring and Wire Product Manufacturing industry starts with wire and fabricates such items.

Within manufacturing there are other establishments that make the same products made by this subsector; only these establishments begin production further back in the production process. These establishments have a more integrated operation. For instance, one establishment may manufacture steel, draw it into wire, and make wire products in the same establishment. Such operations are classified in the Primary Metal Manufacturing subsector.

### **3321 FORGING AND STAMPING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Manufacturing forgings from purchased metals;
2. Manufacturing metal custom roll forming products;
3. Manufacturing metal stamped and spun products (except automotive, cans, and coins); and
4. Manufacturing powder metallurgy products.

Establishments making metal forgings, metal stampings, and metal spun products and further manufacturing (e.g., machining and assembling) a specific manufactured product are classified in the industry of the finished product. Metal forging, metal stamping, and metal spun products establishments may perform surface finishing operations, such as cleaning and deburring, on the products they manufacture.

### **33211 FORGING AND STAMPING**

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

1. manufacturing forgings from purchased metals;
2. manufacturing metal custom roll forming products;
3. manufacturing metal stamped and spun products (except automotive, cans, and coins); and
4. manufacturing powder metallurgy products.

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Establishments making metal forgings, metal stampings, and metal spun products and further manufacturing (e.g., machining and assembling) a specific manufactured product are classified in the industry of the finished product. Metal forging, metal stamping, and metal spun products establishments may perform surface finishing operations, such as cleaning and deburring, on the products they manufacture.

### **332111 IRON AND STEEL FORGING**

This U.S. industry comprises establishments primarily engaged in manufacturing iron and steel forgings from purchased iron and steel by hammering mill shapes. Establishments making iron and steel forgings and further manufacturing (e.g., machining, assembling) a specific manufactured product are classified in the industry of the finished product. Iron and steel forging establishments may perform surface finishing operations, such as cleaning and deburring, on the forgings they manufacture.

### **332112 NONFERROUS FORGING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonferrous forgings from purchased nonferrous metals by hammering mill shapes. Establishments making nonferrous forgings and further manufacturing (e.g., machining, assembling) a specific manufactured product are classified in the industry of the finished product. Nonferrous forging establishments may perform surface finishing operations, such as cleaning and deburring, on the forgings they manufacture.

### **332114 CUSTOM ROLL FORMING**

This U.S. industry comprises establishments primarily engaged in custom roll forming metal products by use of rotary motion of rolls with various contours to bend or shape the products.

### **332115 CROWN AND CLOSURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in stamping metal crowns and closures, such as bottle caps and home canning lids and rings.

### **332116 METAL STAMPING**

This U.S. industry comprises establishments primarily engaged in manufacturing unfinished metal stampings and spinning unfinished metal products (except crowns, cans, closures, automotive, and coins). Establishments making metal stampings and metal spun products and further manufacturing (e.g., machining, assembling) a specific product are classified in the industry of the finished product. Metal stamping and metal spun products establishments may perform surface finishing operations, such as cleaning and deburring, on the products they manufacture.

### **332117 POWDER METALLURGY PART MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing powder metallurgy products by compacting them in a shaped die and sintering. Establishments in this industry generally make a wide range of parts on a job or order basis.

### **3322 CUTLERY AND HANDTOOL MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Manufacturing nonprecious and precious plated metal cutlery and flatware;
2. Manufacturing nonpowered hand and edge tools;
3. Manufacturing nonpowered handsaws;
4. Manufacturing saw blades, all types (including those for sawing machines); and

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5. Manufacturing metal kitchen utensils (except cutting-type) and pots and pans (except those manufactured by casting (e.g., cast iron skillets) or stamped without further fabrication).

### **33221 CUTLERY AND HANDTOOL MANUFACTURING**

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

1. manufacturing nonprecious and precious plated metal cutlery and flatware;
2. manufacturing nonpowered hand and edge tools;
3. manufacturing nonpowered handsaws;
4. manufacturing saw blades, all types (including those for sawing machines); and
5. manufacturing metal kitchen utensils (except cutting-type) and pots and pans (except those manufactured by casting (e.g., cast iron skillets) or stamped without further fabrication).

### **332211 CUTLERY AND FLATWARE (EXCEPT PRECIOUS) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonprecious and precious plated metal cutlery and flatware.

### **332212 HAND AND EDGE TOOL MANUFACTURING**

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

### **332213 SAW BLADE AND HANDSAW MANUFACTURING**

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

1. manufacturing nonpowered handsaws and/or
2. manufacturing saw blades, all types (including those for power sawing machines).

### **332214 KITCHEN UTENSIL, POT, AND PAN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal kitchen utensils (except cutting-type), pots, and pans (except those manufactured by casting (e.g., cast iron skillets) or stamped without further fabrication).

### **3323 ARCHITECTURAL AND STRUCTURAL METALS MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing one or more of the following:

1. Plate work and fabricated structural product manufacturing and
2. Ornamental and architectural metal products manufacturing.

### **33231 PLATE WORK AND FABRICATED STRUCTURAL PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing one or more of the following:

1. prefabricated metal buildings, panels and sections;
2. structural metal products; and
3. metal plate work products.

### **332311 PREFABRICATED METAL BUILDING AND COMPONENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing prefabricated metal buildings, panels, and sections.

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### **332312 FABRICATED STRUCTURAL METAL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in fabricating structural metal products, such as concrete reinforcing bars and fabricated bar joists.

### **332313 PLATE WORK MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated metal plate work by cutting, punching, bending, shaping, and welding purchased metal plate.

### **33232 ORNAMENTAL AND ARCHITECTURAL METAL PRODUCTS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing one or more of the following:

1. metal framed windows (i.e., typically using purchased glass) and metal doors;
2. sheet metal work; and
3. ornamental and architectural metal products.

### **332321 METAL WINDOW AND DOOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal framed windows (typically using purchased glass) and metal doors. Examples of products made by these establishments are: metal door frames; metal framed window and door screens; and metal molding and trim (except automotive).

### **332322 SHEET METAL WORK MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing sheet metal work (except stampings).

### **332323 ORNAMENTAL AND ARCHITECTURAL METAL WORK MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing ornamental and architectural metal work, such as staircases, metal open steel flooring, fire escapes, railings, and scaffolding.

### **3324 BOILER, TANK, AND SHIPPING CONTAINER MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Power boiler and heat exchanger manufacturing;
2. Metal tank (heavy gauge) manufacturing; and
3. Metal can, box, and other metal container (light gauge) manufacturing.

### **33241 POWER BOILER AND HEAT EXCHANGER MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing power boilers and heat exchangers. Establishments in this industry may perform installation in addition to manufacturing power boilers and heat exchangers.

### **332410 POWER BOILER AND HEAT EXCHANGER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing power boilers and heat exchangers. Establishments in this industry may perform installation in addition to manufacturing power boilers and heat exchangers.

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### **33242 METAL TANK (HEAVY GAUGE) MANUFACTURING**

This industry comprises establishments primarily engaged in cutting, forming, and joining heavy gauge metal to manufacture tanks, vessels, and other containers.

### **332420 METAL TANK (HEAVY GAUGE) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in cutting, forming, and joining heavy gauge metal to manufacture tanks, vessels, and other containers.

### **33243 METAL CAN, BOX, AND OTHER METAL CONTAINER (LIGHT GAUGE) MANUFACTURING**

This industry comprises establishments primarily engaged in forming light gauge metal containers.

### **332431 METAL CAN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal cans, lids, and ends.

### **332439 OTHER METAL CONTAINER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal (light gauge) containers (except cans).

### **3325 HARDWARE MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated and time locks).

### **33251 HARDWARE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated and time locks).

### **332510 HARDWARE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated and time locks).

### **3326 SPRING AND WIRE PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in:

1. Manufacturing steel springs by forming, such as cutting, bending, and heat winding, metal rod or strip stock, and/or
2. Manufacturing wire springs and fabricated wire products from wire drawn elsewhere (except watch and clock springs).

### **33261 SPRING AND WIRE PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. manufacturing steel springs by forming, such as cutting, bending, and heat winding, metal rod or strip stock, and/or
2. manufacturing wire springs and fabricated wire products from wire drawn elsewhere (except watch and clock springs).

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### **332611 SPRING (HEAVY GAUGE) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing heavy gauge springs by forming, such as cutting, bending, and heat winding, rod or strip stock.

### **332612 SPRING (LIGHT GAUGE) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing light gauge springs from purchased wire or strip.

### **332618 OTHER FABRICATED WIRE PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated wire products (except springs) made from purchased wire.

### **3327 MACHINE SHOPS; TURNED PRODUCT; AND SCREW, NUT, AND BOLT MANUFACTURING**

This industry group comprises establishments primarily engaged in:

1. Machine shops and/or
2. Turned product and screw, nut, and bolt manufacturing.

#### **33271 MACHINE SHOPS**

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

##### **332710 MACHINE SHOPS**

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

##### **33272 TURNED PRODUCT AND SCREW, NUT, AND BOLT MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. machining precision turned products or
2. manufacturing metal bolts, nuts, screws, rivets, and other industrial fasteners.

Included in this industry are establishments primarily engaged in manufacturing parts for machinery and equipment on a customized basis.

##### **332721 PRECISION TURNED PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in machining precision products of all materials on a job or order basis (known as precision turned manufacturers). Generally precision turned product jobs are large volume using machines, such as automatic screw machines, rotary transfer machines, computer numerically controlled (CNC) lathes, or turning centers.

##### **332722 BOLT, NUT, SCREW, RIVET, AND WASHER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal bolts, nuts, screws, rivets, washers, and other industrial fasteners using machines, such as headers, threaders, and nut forming machines.

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### **3328 COATING, ENGRAVING, HEAT TREATING, AND ALLIED ACTIVITIES**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Heat treating metals and metal products;
2. Enameling, lacquering, and varnishing metals and metal products;
3. Hot dip galvanizing metals and metal products;
4. Engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates);
5. Powder coating metals and metal products;
6. Electroplating, plating, anodizing, coloring, and finishing metals and metal products; and
7. Providing other metal surfacing services for the trade.

Included in this industry are establishments that coat engravings and heat treat metals and metal formed products fabricated elsewhere.

### **33281 COATING, ENGRAVING, HEAT TREATING, AND ALLIED ACTIVITIES**

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

1. heat treating metals and metal products;
2. enameling, lacquering, and varnishing metals and metal products;
3. hot dip galvanizing metals and metal products;
4. engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates);
5. powder coating metals and metal products;
6. electroplating, plating, anodizing, coloring, and finishing metals and metal products; and
7. providing other metal surfacing services for the trade.

Included in this industry are establishments that coat engravings and heat treat metals and metal formed products fabricated elsewhere.

### **332811 METAL HEAT TREATING**

This U.S. industry comprises establishments primarily engaged in heat treating, such as annealing, tempering, and brazing metals and metal products for the trade.

### **332812 METAL COATING, ENGRAVING (EXCEPT JEWELRY AND SILVERWARE), AND ALLIED SERVICES TO MANUFACTURERS**

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

1. enameling, lacquering, and varnishing metals and metal products;
2. hot dip galvanizing metals and metal products;
3. engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates);
4. powder coating metals and metal products; and
5. providing other metal surfacing services for the trade.

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### **332813 ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING**

This U.S. industry comprises establishments primarily engaged in electroplating, plating, anodizing, coloring, buffing, polishing, cleaning, and sandblasting metals and metal products for the trade.

### **3329 OTHER FABRICATED METAL PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metals, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, and nuts and bolts).

### **33291 METAL VALVE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing one or more of the following metal valves:

1. industrial valves;
2. fluid power valves and hose fittings;
3. plumbing fixture fittings and trim; and
4. other metal valves and pipe fittings.

### **332911 INDUSTRIAL VALVE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial valves and valves for water works and municipal water systems.

### **332912 FLUID POWER VALVE AND HOSE FITTING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power valves and hose fittings.

### **332913 PLUMBING FIXTURE FITTING AND TRIM MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal and plastics plumbing fixture fittings and trim, such as faucets, flush valves, and shower heads.

### **332919 OTHER METAL VALVE AND PIPE FITTING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal valves (except industrial valves, fluid power valves, fluid power hose fittings, and plumbing fixture fittings and trim).

### **33299 ALL OTHER FABRICATED METAL PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metal products, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, nuts and bolts, and metal valves).

### **332991 BALL AND ROLLER BEARING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing ball and roller bearings of all materials.

### **332992 SMALL ARMS AMMUNITION MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing small arms ammunition.

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### **332993 AMMUNITION (EXCEPT SMALL ARMS) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing ammunition (except small arms). Examples of products made by these establishments are bombs, depth charges, rockets (except guided missiles), grenades, mines, and torpedoes.

### **332994 SMALL ARMS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing small firearms that are carried and fired by the individual.

### **332995 OTHER ORDNANCE AND ACCESSORIES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing ordnance (except small arms) and accessories.

### **332996 FABRICATED PIPE AND PIPE FITTING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in fabricating, such as cutting, threading, and bending metal pipes and pipe fittings made from purchased metal pipe.

### **332997 INDUSTRIAL PATTERN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial patterns.

### **332998 ENAMELED IRON AND METAL SANITARY WARE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing enameled iron and metal sanitary ware.

### **332999 ALL OTHER MISCELLANEOUS FABRICATED METAL PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metals, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, nuts and bolts, metal valves, ball and roller bearings, ammunition, small arms and other ordnances, fabricated pipes and pipe fittings, industrial patterns, and enameled iron and metal sanitary ware).

## **333 MACHINERY MANUFACTURING**

Industries in the Machinery Manufacturing subsector create end products that apply mechanical force, for example, the application of gears and levers, to perform work. Some important processes for the manufacture of machinery are forging, stamping, bending, forming, and machining that are used to shape individual pieces of metal. Processes, such as welding and assembling are used to join separate parts together. Although these processes are similar to those used in metal fabricating establishments, machinery manufacturing is different because it typically employs multiple metal forming processes in manufacturing the various parts of the machine. Moreover, complex assembly operations are an inherent part of the production process.

In general, design considerations are very important in machinery production. Establishments specialize in making machinery designed for particular applications. Thus, design is considered to be part of the production process for the purpose of implementing NAICS. The NAICS structure reflects this by defining industries and industry groups that make machinery for different applications. A broad distinction exists between machinery that is generally used in a variety of industrial applications (i.e., general purpose machinery) and machinery that is designed to be used in a particular industry (i.e., special purpose machinery). Three industry groups consist of special purpose machinery--Agricultural, Construction, and Mining Machinery Manufacturing; Industrial Machinery

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Manufacturing; and Commercial and Service Industry Machinery Manufacturing. The other industry groups make general-purpose machinery: Ventilation, Heating, Air Conditioning, and Commercial Refrigeration Equipment Manufacturing; Metalworking Machinery Manufacturing; Engine, Turbine, and Power Transmission Equipment Manufacturing; and Other General Purpose Machinery Manufacturing.

### **3331 AGRICULTURE, CONSTRUCTION, AND MINING MACHINERY MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Agricultural implement manufacturing;
2. Construction machinery manufacturing; and
3. Mining and oil and gas field machinery manufacturing.

#### **33311 AGRICULTURAL IMPLEMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing farm machinery and equipment, powered mowing equipment, and other powered home lawn and garden equipment.

##### **333111 FARM MACHINERY AND EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing agricultural and farm machinery and equipment and other turf and grounds care equipment, including planting, harvesting, and grass mowing equipment (except lawn and garden-type).

##### **333112 LAWN AND GARDEN TRACTOR AND HOME LAWN AND GARDEN EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing powered lawnmowers, lawn and garden tractors, and other home lawn and garden equipment, such as tillers, shredders, and yard vacuums and blowers.

#### **33312 CONSTRUCTION MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing construction machinery, surface mining machinery, and logging equipment.

##### **333120 CONSTRUCTION MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing construction machinery, surface mining machinery, and logging equipment.

#### **33313 MINING AND OIL AND GAS FIELD MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing oil and gas field and underground mining machinery and equipment.

##### **333131 MINING MACHINERY AND EQUIPMENT MANUFACTURING**

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

1. manufacturing underground mining machinery and equipment, such as coal breakers, mining cars, core drills, coal cutters, and rock drills and
2. manufacturing mineral beneficiating machinery and equipment used in surface or underground mines.

##### **333132 OIL AND GAS FIELD MACHINERY AND EQUIPMENT MANUFACTURING**

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

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1. manufacturing oil and gas field machinery and equipment, such as oil and gas field drilling machinery and equipment; oil and gas field production machinery and equipment; and oil and gas field derricks; and
  2. manufacturing water well drilling machinery.

### **3332 INDUSTRIAL MACHINERY MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Sawmill and woodworking machinery manufacturing;
2. Plastics and rubber industry machinery manufacturing; and
3. Other industrial machinery manufacturing.

#### **33321 SAWMILL AND WOODWORKING MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing sawmill and wood-working machinery (except handheld), such as circular and band sawing equipment, planing machinery, and sanding machinery.

##### **333210 SAWMILL AND WOODWORKING MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing sawmill and woodworking machinery (except handheld), such as circular and band sawing equipment, planing machinery, and sanding machinery.

#### **33322 PLASTICS AND RUBBER INDUSTRY MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing plastics and rubber products making machinery, such as plastics compression, extrusion and injection molding machinery and equipment, and tire building and recapping machinery and equipment.

##### **333220 PLASTICS AND RUBBER INDUSTRY MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing plastics and rubber products making machinery, such as plastics compression, extrusion and injection molding machinery and equipment, and tire building and recapping machinery and equipment.

#### **33329 OTHER INDUSTRIAL MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing industrial machinery (except agricultural and farm-type, construction, mining, sawmill and woodworking, and plastics and rubber products making machinery).

##### **333291 PAPER INDUSTRY MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing paper industry machinery for making paper and paper products, such as pulp making machinery, paper and paperboard making machinery, and paper and paperboard converting machinery.

##### **333292 TEXTILE MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing textile machinery for making thread, yarn, and fiber.

##### **333293 PRINTING MACHINERY AND EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing printing and bookbinding machinery and equipment, such as printing presses, typesetting machinery, and bindery machinery.

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### **333294 FOOD PRODUCT MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing food and beverage manufacturing-type machinery and equipment, such as dairy product plant machinery and equipment (e.g., homogenizers, pasteurizers, and ice cream freezers), bakery machinery and equipment (e.g., dough mixers, bake ovens, and pastry rolling machines), meat and poultry processing and preparation machinery, and other commercial food products machinery (e.g., slicers, choppers, and mixers).

### **333295 SEMICONDUCTOR MACHINERY MANUFACTURING**

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

### **333298 ALL OTHER INDUSTRIAL MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial machinery (except agricultural and farm-type, construction and mining machinery, sawmill and woodworking machinery, plastics and rubber making machinery, paper and paperboard making machinery, textile machinery, printing machinery and equipment, food manufacturing-type machinery, and semiconductor making machinery).

### **3333 COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing commercial and service machinery, such as automatic vending machinery, commercial laundry and dry-cleaning machinery, office machinery, photographic and photocopying machinery, optical instruments and machinery, automotive maintenance equipment (except mechanic's handtools), industrial vacuum cleaners, and commercial-type cooking equipment.

### **33331 COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing commercial and service machinery, such as automatic vending machinery, commercial laundry and dry-cleaning machinery, office machinery, photographic and photocopying machinery, optical instruments and machinery, automotive maintenance equipment (except mechanic's handtools), industrial vacuum cleaners, and commercial-type cooking equipment.

### **333311 AUTOMATIC VENDING MACHINE MANUFACTURING**

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

1. manufacturing coin, token, currency, or magnetic card operated vending machines; and/or
2. manufacturing coin operated mechanism for machines, such as vending machines, lockers, and laundry machines.

### **333312 COMMERCIAL LAUNDRY, DRYCLEANING, AND PRESSING MACHINE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing commercial and industrial laundry and drycleaning equipment and pressing machines.

### **333313 OFFICE MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing office machinery (except computers and photocopying equipment), such as mailhandling machinery and equipment, calculators, typewriters, and dedicated word processing equipment.

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### **333314 OPTICAL INSTRUMENT AND LENS MANUFACTURING**

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

1. manufacturing optical instruments and lens, such as binoculars, microscopes (except electron and proton), telescopes, prisms, and lenses (except ophthalmic);
2. coating or polishing lenses (except ophthalmic); and
3. mounting lenses (except ophthalmic).

### **333315 PHOTOGRAPHIC AND PHOTOCOPYING EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing photographic and photocopying equipment, such as cameras (except television, video, and digital), projectors, film developing equipment, photocopying equipment, and microfilm equipment.

### **333319 OTHER COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing commercial and service industry equipment (except automatic vending machines, commercial laundry, drycleaning and pressing machines, office machinery, optical instruments and lenses, and photographic and photocopying equipment).

### **3334 VENTILATION, HEATING, AIR-CONDITIONING, AND COMMERCIAL REFRIGERATION EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing ventilation, heating, air-conditioning, and commercial and industrial refrigeration and freezer equipment.

### **33341 VENTILATION, HEATING, AIR-CONDITIONING, AND COMMERCIAL REFRIGERATION EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing ventilation, heating, air-conditioning, and commercial and industrial refrigeration and freezer equipment.

### **333411 AIR PURIFICATION EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing stationary air purification equipment, such as industrial dust and fume collection equipment, electrostatic precipitation equipment, warm air furnace filters, air washers, and other dust collection equipment.

### **333412 INDUSTRIAL AND COMMERCIAL FAN AND BLOWER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing attic fans and industrial and commercial fans and blowers, such as commercial exhaust fans and commercial ventilating fans.

### **333414 HEATING EQUIPMENT (EXCEPT WARM AIR FURNACES) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing heating equipment (except electric and warm air furnaces), such as heating boilers, heating stoves, floor and wall furnaces, and wall and baseboard heating units.

### **333415 AIR-CONDITIONING AND WARM AIR HEATING EQUIPMENT AND COMMERCIAL AND INDUSTRIAL REFRIGERATION EQUIPMENT MANUFACTURING**

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

1. manufacturing air-conditioning (except motor vehicle) and warm air furnace equipment and/or
2. manufacturing commercial and industrial refrigeration and freezer equipment.

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### **3335 METALWORKING MACHINERY MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing metalworking machinery, such as metal cutting and metal forming machine tools; cutting tools; and accessories for metalworking machinery; special dies, tools, jigs, and fixtures; industrial molds; rolling mill machinery; assembly machinery; coil handling, conversion, or straightening equipment; and wire drawing and fabricating machines.

### **33351 METALWORKING MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing metalworking machinery, such as metal cutting and metal forming machine tools; cutting tools; and accessories for metalworking machinery; special dies, tools, jigs, and fixtures; industrial molds; rolling mill machinery; assembly machinery; coil handling, conversion, or straightening equipment; and wire drawing and fabricating machines.

### **333511 INDUSTRIAL MOLD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial molds for casting metals or forming other materials, such as plastics, glass, or rubber.

### **333512 MACHINE TOOL (METAL CUTTING TYPES) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal cutting machine tools (except handtools).

### **333513 MACHINE TOOL (METAL FORMING TYPES) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal forming machine tools (except handtools), such as punching, sheering, bending, forming, pressing, forging, and die-casting machines.

### **333514 SPECIAL DIE AND TOOL, DIE SET, JIG, AND FIXTURE MANUFACTURING**

This U.S. industry comprises establishments, known as tool and die shops, primarily engaged in manufacturing special tools and fixtures, such as cutting dies and jigs.

### **333515 CUTTING TOOL AND MACHINE TOOL ACCESSORY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing accessories and attachments for metal cutting and metal forming machine tools.

### **333516 ROLLING MILL MACHINERY AND EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing rolling mill machinery and equipment for metal production.

### **333518 OTHER METALWORKING MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal working machinery (except industrial molds; metal cutting machine tools; metal forming machine tools; special dies and tools, die sets, jigs, and fixtures; cutting tools and machine tool accessories; and rolling mill machinery and equipment).

### **3336 ENGINE, TURBINE, AND POWER TRANSMISSION EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing turbines, power transmission equipment, and internal combustion engines (except automotive, gasoline, and aircraft).

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### **33361 ENGINE, TURBINE, AND POWER TRANSMISSION EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing turbines, power transmission equipment, and internal combustion engines (except automotive, gasoline, and aircraft).

#### **333611 TURBINE AND TURBINE GENERATOR SET UNITS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing turbines (except aircraft) and complete turbine generator set units, such as steam, hydraulic, gas, and wind.

#### **333612 SPEED CHANGER, INDUSTRIAL HIGH-SPEED DRIVE, AND GEAR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing gears, speed changers, and industrial high-speed drives (except hydrostatic).

#### **333613 MECHANICAL POWER TRANSMISSION EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing mechanical power transmission equipment (except motor vehicle and aircraft), such as plain bearings, clutches (except motor vehicle and electromagnetic industrial control), couplings, joints, and drive chains.

#### **333618 OTHER ENGINE EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing internal combustion engines (except automotive gasoline and aircraft).

#### **3339 OTHER GENERAL PURPOSE MACHINERY MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Pump and compressor manufacturing;
2. Material handling equipment manufacturing; and
3. All other general purpose machinery manufacturing.

#### **33391 PUMP AND COMPRESSOR MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing pumps and compressors, such as general purpose air and gas compressors, nonagricultural spraying and dusting equipment, general purpose pumps and pumping equipment (except fluid power pumps and motors), and measuring and dispensing pumps.

##### **333911 PUMP AND PUMPING EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing general purpose pumps and pumping equipment (except fluid power pumps and motors), such as reciprocating pumps, turbine pumps, centrifugal pumps, rotary pumps, diaphragm pumps, domestic water system pumps, oil well and oil field pumps, and sump pumps.

##### **333912 AIR AND GAS COMPRESSOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing general purpose air and gas compressors, such as reciprocating compressors, centrifugal compressors, vacuum pumps (except laboratory), and nonagricultural spraying and dusting compressors and spray gun units.

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### **333913 MEASURING AND DISPENSING PUMP MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing measuring and dispensing pumps, such as gasoline pumps and lubricating oil measuring and dispensing pumps.

### **33392 MATERIAL HANDLING EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing material handling equipment, such as elevators and moving stairs; conveyors and conveying equipment; overhead traveling cranes, hoists, and monorail systems; and industrial trucks, tractors, trailers, and stacker machinery.

### **333921 ELEVATOR AND MOVING STAIRWAY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing elevators and moving stairways.

### **333922 CONVEYOR AND CONVEYING EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing conveyors and conveying equipment, such as gravity conveyors, trolley conveyors, tow conveyors, pneumatic tube conveyors, carousel conveyors, farm conveyors, and belt conveyors.

### **333923 OVERHEAD TRAVELING CRANE, HOIST, AND MONORAIL SYSTEM MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing overhead traveling cranes, hoists, and monorail systems.

### **333924 INDUSTRIAL TRUCK, TRACTOR, TRAILER, AND STACKER MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial trucks, tractors, trailers, and stackers (i.e., truck-type), such as forklifts, pallet loaders and unloaders, and portable loading docks.

### **33399 ALL OTHER GENERAL PURPOSE MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing general purpose machinery (except ventilation, heating, air-conditioning, and commercial refrigeration equipment; metal working machinery; engines, turbines, and power transmission equipment; pumps and compressors; and material handling equipment).

### **333991 POWER-DRIVEN HANDTOOL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing power-driven (e.g., battery, corded, and pneumatic) handtools, such as drills, screwguns, circular saws, chain saws, staplers, and nailers.

### **333992 WELDING AND SOLDERING EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing welding and soldering equipment and accessories (except transformers), such as arc, resistance, gas, plasma, laser, electron beam, and ultrasonic welding equipment; welding electrodes; coated or cored welding wire; and soldering equipment (except handheld).

### **333993 PACKAGING MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing packaging machinery, such as wrapping, bottling, canning, and labeling machinery.

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### **333994 INDUSTRIAL PROCESS FURNACE AND OVEN MANUFACTURING**

This U.S. Industry comprises establishments primarily engaged in manufacturing industrial process furnaces, ovens, induction and dielectric heating equipment, and kilns (except cement, chemical, and wood).

### **333995 FLUID POWER CYLINDER AND ACTUATOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power (i.e., hydraulic and pneumatic) cylinders and actuators.

### **333996 FLUID POWER PUMP AND MOTOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power (i.e., hydraulic and pneumatic) pumps and motors.

### **333997 SCALE AND BALANCE (EXCEPT LABORATORY) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing scales and balances (except laboratory).

### **333999 ALL OTHER MISCELLANEOUS GENERAL PURPOSE MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing general purpose machinery (except ventilating, heating, air-conditioning, and commercial refrigeration equipment; metal working machinery; engines, turbines, and power transmission equipment; pumps and compressors; material handling equipment; power-driven handtools; welding and soldering equipment; packaging machinery; industrial process furnaces and ovens; fluid power cylinders and actuators; fluid power pumps and motors; and scales and balances).

## **334 COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING**

Industries in the Computer and Electronic Product Manufacturing subsector group establishments that manufacture computers, computer peripherals, communications equipment, and similar electronic products, and establishments that manufacture components for such products. The Computer and Electronic Product Manufacturing industries have been combined in the hierarchy of NAICS because of the economic significance they have attained. Their rapid growth suggests that they will become even more important to the economies of all three North American countries in the future, and in addition their manufacturing processes are fundamentally different from the manufacturing processes of other machinery and equipment. The design and use of integrated circuits and the application of highly specialized miniaturization technologies are common elements in the production technologies of the computer and electronic subsector. Convergence of technology motivates this NAICS subsector. Digitalization of sound recording, for example, causes both the medium (the compact disc) and the equipment to resemble the technologies for recording, storing, transmitting, and manipulating data. Communications technology and equipment have been converging with computer technology. When technologically-related components are in the same sector, it makes it easier to adjust the classification for future changes, without needing to redefine its basic structure. The creation of the Computer and Electronic Product Manufacturing subsector will assist in delineating new and emerging industries because the activities that will serve as the probable sources of new industries, such as computer manufacturing and communications equipment manufacturing, or computers and audio equipment, are brought together. As new activities emerge, they are less likely therefore, to cross the subsector boundaries of the classification.

### **3341 COMPUTER AND PERIPHERAL EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, input/output devices and terminals. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following:

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1. Store the processing program or programs and the data immediately necessary for the execution of the program;
  2. Can be freely programmed in accordance with the requirements of the user;
  3. Perform arithmetical computations specified by the user; and
  4. Execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run.

Analog computers are capable of simulating mathematical models and comprise at least analog, control, and programming elements.

### **33411 COMPUTER AND PERIPHERAL EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, input/output devices and terminals. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following:

1. store the processing program or programs and the data immediately necessary for the execution of the program;
2. can be freely programmed in accordance with the requirements of the user;
3. perform arithmetical computations specified by the user; and
4. execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run.

Analog computers are capable of simulating mathematical models and comprise at least analog, control, and programming elements.

### **334111 ELECTRONIC COMPUTER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following:

1. store the processing program or programs and the data immediately necessary for the execution of the program;
2. can be freely programmed in accordance with the requirements of the user;
3. perform arithmetical computations specified by the user; and
4. execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run.

Analog computers are capable of simulating mathematical models and contain at least analog, control, and programming elements. The manufacture of computers includes the assembly or integration of processors, coprocessors, memory, storage, and input/output devices into a user-programmable final product.

### **334112 COMPUTER STORAGE DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, optical, or magnetic/optical media. Examples of products made by these establishments are CD-ROM drives, floppy disk drives, hard disk drives, and tape storage and backup units.

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### **334113 COMPUTER TERMINAL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing computer terminals. Computer terminals are input/output devices that connect with a central computer for processing.

### **334119 OTHER COMPUTER PERIPHERAL EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing computer peripheral equipment (except storage devices and computer terminals).

### **3342 COMMUNICATIONS EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Telephone apparatus manufacturing;
2. Radio and television broadcasting and wireless communications equipment manufacturing; and
3. Other communications equipment manufacturing.

### **33421 TELEPHONE APPARATUS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be standalone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, LAN modems, multi-user modems, and other data communications equipment, such as bridges, routers, and gateways.

### **334210 TELEPHONE APPARATUS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be stand-alone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, and data communications equipment, such as bridges, routers, and gateways.

### **33422 RADIO AND TELEVISION BROADCASTING AND WIRELESS COMMUNICATIONS EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.

### **334220 RADIO AND TELEVISION BROADCASTING AND WIRELESS COMMUNICATIONS EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.

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### **33429 OTHER COMMUNICATIONS EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, and radio and television broadcast, and wireless communications equipment).

### **334290 OTHER COMMUNICATIONS EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, radio and television broadcast, and wireless communications equipment).

### **3343 AUDIO AND VIDEO EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

### **33431 AUDIO AND VIDEO EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

### **334310 AUDIO AND VIDEO EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

### **3344 SEMICONDUCTOR AND OTHER ELECTRONIC COMPONENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing semiconductors and other components for electronic applications. Examples of products made by these establishments are capacitors, resistors, microprocessors, bare and loaded printed circuit boards, electron tubes, electronic connectors, and computer modems.

### **33441 SEMICONDUCTOR AND OTHER ELECTRONIC COMPONENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing semiconductors and other components for electronic applications. Examples of products made by these establishments are capacitors, resistors, microprocessors, bare and loaded printed circuit boards, electron tubes, electronic connectors, and computer modems.

### **334411 ELECTRON TUBE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electron tubes and parts (except glass blanks). Examples of products made by these establishments are cathode ray tubes (i.e., picture tubes), klystron tubes, magnetron tubes, and traveling wave tubes.

### **334412 BARE PRINTED CIRCUIT BOARD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing bare (i.e., rigid or flexible) printed circuit boards without mounted electronic components. These establishments print, perforate, plate, screen, etch, or photoprint interconnecting pathways for electric current on laminates.

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### **334413 SEMICONDUCTOR AND RELATED DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing semiconductors and related solid state devices. Examples of products made by these establishments are integrated circuits, memory chips, microprocessors, diodes, transistors, solar cells and other optoelectronic devices.

### **334414 ELECTRONIC CAPACITOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic fixed and variable capacitors and condensers.

### **334415 ELECTRONIC RESISTOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic resistors, such as fixed and variable resistors, resistor networks, thermistors, and varistors.

### **334416 ELECTRONIC COIL, TRANSFORMER, AND OTHER INDUCTOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic inductors, such as coils and transformers.

### **334417 ELECTRONIC CONNECTOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic connectors, such as coaxial; cylindrical; rack and panel; pin and sleeve; printed circuit; and fiber optic.

### **334418 PRINTED CIRCUIT ASSEMBLY (ELECTRONIC ASSEMBLY) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in loading components onto printed circuit boards or who manufacture and ship loaded printed circuit boards. Also known as printed circuit assemblies, electronics assemblies, or modules, these products are printed circuit boards that have some or all of the semiconductor and electronic components inserted or mounted and are inputs to a wide variety of electronic systems and devices.

### **334419 OTHER ELECTRONIC COMPONENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic components (except electron tubes; bare printed circuit boards; semiconductors and related devices; electronic capacitors; electronic resistors; coils, transformers, and other inductors; connectors; and loaded printed circuit boards).

### **3345 NAVIGATIONAL, MEASURING, ELECTROMEDICAL, AND CONTROL INSTRUMENTS MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments, navigation and guidance systems, and physical properties testing equipment.

### **33451 NAVIGATIONAL, MEASURING, ELECTROMEDICAL, AND CONTROL INSTRUMENTS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments, navigation and guidance systems, and physical properties testing equipment.

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### **334510 ELECTROMEDICAL AND ELECTROTHERAPEUTIC APPARATUS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electromedical and electrotherapeutic apparatus, such as magnetic resonance imaging equipment, medical ultrasound equipment, pacemakers, hearing aids, electrocardiographs, and electromedical endoscopic equipment.

### **334511 SEARCH, DETECTION, NAVIGATION, GUIDANCE, AERONAUTICAL, AND NAUTICAL SYSTEM AND INSTRUMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing search, detection, navigation, guidance, aeronautical, and nautical systems and instruments. Examples of products made by these establishments are aircraft instruments (except engine), flight recorders, navigational instruments and systems, radar systems and equipment, and sonar systems and equipment.

### **334512 AUTOMATIC ENVIRONMENTAL CONTROL MANUFACTURING FOR RESIDENTIAL, COMMERCIAL, AND APPLIANCE USE**

This U.S. industry comprises establishments primarily engaged in manufacturing automatic controls and regulators for applications, such as heating, air-conditioning, refrigeration, and appliances.

### **334513 INSTRUMENTS AND RELATED PRODUCTS MANUFACTURING FOR MEASURING, DISPLAYING, AND CONTROLLING INDUSTRIAL PROCESS VARIABLES**

This U.S. industry comprises establishments primarily engaged in manufacturing instruments and related devices for measuring, displaying, indicating, recording, transmitting, and controlling industrial process variables. These instruments measure, display, or control (i.e., monitor and analyze) industrial process variables, such as temperature, humidity, pressure, vacuum, combustion, flow, level, viscosity, density, acidity, concentration, and rotation.

### **334514 TOTALIZING FLUID METER AND COUNTING DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing totalizing (i.e., registering) fluid meters and counting devices. Examples of products made by these establishments are gas consumption meters, water consumption meters, parking meters, taxi meters, motor vehicle gauges, and fare collection equipment.

### **334515 INSTRUMENT MANUFACTURING FOR MEASURING AND TESTING ELECTRICITY AND ELECTRICAL SIGNALS**

This U.S. industry comprises establishments primarily engaged in manufacturing instruments for measuring and testing the characteristics of electricity and electrical signals. Examples of products made by these establishments are circuit and continuity testers, volt meters, ohm meters, wattmeters, multimeters, and semiconductor test equipment.

### **334516 ANALYTICAL LABORATORY INSTRUMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing instruments and instrumentation systems for laboratory analysis of the chemical or physical composition or concentration of samples of solid, fluid, gaseous, or composite material.

### **334517 IRRADIATION APPARATUS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing irradiation apparatus and tubes for applications, such as medical diagnostic, medical therapeutic, industrial, and research and scientific evaluation. Irradiation can take the form of beta-rays, gamma-rays, X-rays, or other ionizing radiation.

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### **334518 WATCH, CLOCK, AND PART MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or assembling: clocks; watches; timing mechanisms for clockwork operated devices; time clocks; time and date recording devices; and clock and watch parts (except crystals), such as springs, jewels, and modules.

### **334519 OTHER MEASURING AND CONTROLLING DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing measuring and controlling devices (except search, detection, navigation, guidance, aeronautical, and nautical instruments and systems; automatic environmental controls for residential, commercial, and appliance use; instruments for measurement, display, and control of industrial process variables; totalizing fluid meters and counting devices; instruments for measuring and testing electricity and electrical signals; analytical laboratory instruments; watches, clocks, and parts; irradiation equipment; and electromedical and electrotherapeutic apparatus).

### **3346 MANUFACTURING AND REPRODUCING MAGNETIC AND OPTICAL MEDIA**

This industry group comprises establishments primarily engaged in:

1. Manufacturing optical and magnetic media, such as blank audio tape, blank video tape, and blank diskettes and/or
2. Mass duplicating (i.e., making copies) audio, video, software, and other data on magnetic, optical, and similar media.

### **33461 MANUFACTURING AND REPRODUCING MAGNETIC AND OPTICAL MEDIA**

This industry comprises establishments primarily engaged in:

1. manufacturing optical and magnetic media, such as blank audio tape, blank video tape, and blank diskettes and/or;
2. mass duplicating (i.e., making copies) audio, video, software, and other data on magnetic, optical, and similar media.

### **334611 SOFTWARE REPRODUCING**

This U.S. industry comprises establishments primarily engaged in mass reproducing computer software. These establishments do not generally develop any software, they mass reproduce data and programs on magnetic media, such as diskettes, tapes, or cartridges. Establishments in this industry mass reproduce products, such as CD-ROMs and game cartridges.

### **334612 PRERECORDED COMPACT DISC (EXCEPT SOFTWARE), TAPE, AND RECORD REPRODUCING**

This U.S. industry comprises establishments primarily engaged in mass reproducing audio and video material on magnetic or optical media. Examples of products mass reproduced by these establishments are audio compact discs, prerecorded audio and video cassettes, and laser discs.

### **334613 MAGNETIC AND OPTICAL RECORDING MEDIA MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing magnetic and optical recording media, such as blank magnetic tape, blank diskettes, blank optical discs, hard drive media, and blank magnetic tape cassettes.

### **335 ELECTRICAL EQUIPMENT, APPLIANCE, AND COMPONENT MANUFACTURING**

Industries in the Electrical Equipment, Appliance, and Component Manufacturing subsector manufacture products that generate, distribute and use electrical power. Electric Lighting Equipment Manufacturing establishments produce electric lamp bulbs, lighting fixtures, and parts. Household

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Appliance Manufacturing establishments make both small and major electrical appliances and parts. Electrical Equipment Manufacturing establishments make goods, such as electric motors, generators, transformers, and switchgear apparatus. Other Electrical Equipment and Component Manufacturing establishments make devices for storing electrical power (e.g., batteries), for transmitting electricity (e.g., insulated wire), and wiring devices (e.g., electrical outlets, fuse boxes, and light switches).

### **3351 ELECTRIC LIGHTING EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Electric lamp bulb and part manufacturing and/or
2. Lighting fixture manufacturing.

#### **33511 ELECTRIC LAMP BULB AND PART MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing electric light bulbs and tubes, and parts and components (except glass blanks for electric light bulbs).

##### **335110 ELECTRIC LAMP BULB AND PART MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electric light bulbs and tubes, and parts and components (except glass blanks for electric light bulbs).

#### **33512 LIGHTING FIXTURE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing electric lighting fixtures (except vehicular), nonelectric lighting equipment, lamp shades (except glass and plastics), and lighting fixture components (except current-carrying wiring devices).

##### **335121 RESIDENTIAL ELECTRIC LIGHTING FIXTURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing fixed or portable residential electric lighting fixtures and lamp shades of metal, paper, or textiles. Residential electric lighting fixtures include those for use both inside and outside the residence.

##### **335122 COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL ELECTRIC LIGHTING FIXTURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing commercial, industrial, and institutional electric lighting fixtures.

##### **335129 OTHER LIGHTING EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electric lighting fixtures (except residential, commercial, industrial, institutional, and vehicular) and nonelectric lighting equipment.

### **3352 HOUSEHOLD APPLIANCE MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Small electrical appliance manufacturing and/or
2. Major appliance manufacturing.

#### **33521 SMALL ELECTRICAL APPLIANCE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing small electric appliances and electric housewares, household-type fans, household-type vacuum cleaners, and other electric household-type floor care machines.

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### **335211 ELECTRIC HOUSEWARES AND HOUSEHOLD FAN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing small electric appliances and electric housewares for heating, cooking, and other purposes, and electric household-type fans (except attic fans).

### **335212 HOUSEHOLD VACUUM CLEANER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electric vacuum cleaners, electric floor waxing machines, and other electric floor care machines typically for household use.

### **33522 MAJOR APPLIANCE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing household-type cooking appliances, household-type laundry equipment, household-type refrigerators, upright and chest freezers, and other electrical and nonelectrical major household-type appliances, such as dishwashers, water heaters, and garbage disposal units.

### **335221 HOUSEHOLD COOKING APPLIANCE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing household-type electric and nonelectric cooking equipment (except small electric appliances and electric housewares).

### **335222 HOUSEHOLD REFRIGERATOR AND HOME FREEZER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing household-type refrigerators and upright and chest freezers.

### **335224 HOUSEHOLD LAUNDRY EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing household-type laundry equipment.

### **335228 OTHER MAJOR HOUSEHOLD APPLIANCE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electric and non-electric major household-type appliances (except cooking equipment, refrigerators, upright and chest freezers, and household-type laundry equipment).

### **3353 ELECTRICAL EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers; electric motors, generators, and motor generator sets; switchgear and switchboard apparatus; relays; and industrial controls.

### **33531 ELECTRICAL EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers; electric motors, generators, and motor generator sets; switchgear and switchboard apparatus; relays; and industrial controls.

### **335311 POWER, DISTRIBUTION, AND SPECIALTY TRANSFORMER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers (except electronic components). Industrial-type and consumer-type transformers in this industry vary (e.g., step up or step down) voltage but do not convert alternating to direct or direct to alternating current.

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### **335312 MOTOR AND GENERATOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electric motors (except internal combustion engine starting motors), power generators (except battery charging alternators for internal combustion engines), and motor generator sets (except turbine generator set units). This industry includes establishments rewinding armatures on a factory basis.

### **335313 SWITCHGEAR AND SWITCHBOARD APPARATUS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing switchgear and switchboard apparatus.

### **335314 RELAY AND INDUSTRIAL CONTROL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing relays, motor starters and controllers, and other industrial controls and control accessories.

### **3359 OTHER ELECTRICAL EQUIPMENT AND COMPONENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing electrical equipment and components (except electric lighting equipment, household-type appliances, transformers, switchgear, relays, motors, and generators).

### **33591 BATTERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing primary and storage batteries.

### **335911 STORAGE BATTERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing storage batteries.

### **335912 PRIMARY BATTERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wet or dry primary batteries.

### **33592 COMMUNICATION AND ENERGY WIRE AND CABLE MANUFACTURING**

This industry comprises establishments insulating fiber-optic cable, and manufacturing insulated nonferrous wire and cable from nonferrous wire drawn in other establishments.

### **335921 FIBER OPTIC CABLE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing insulated fiber-optic cable from purchased fiber-optic strand.

### **335929 OTHER COMMUNICATION AND ENERGY WIRE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing insulated wire and cable of nonferrous metals from purchased wire.

### **33593 WIRING DEVICE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing current-carrying wiring devices and noncurrent-carrying wiring devices for wiring electrical circuits.

### **335931 CURRENT-CARRYING WIRING DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing current-carrying wiring devices.

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### **335932 NONCURRENT-CARRYING WIRING DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing noncurrent-carrying wiring devices.

### **33599 ALL OTHER ELECTRICAL EQUIPMENT AND COMPONENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing electrical equipment (except electric lighting equipment, household-type appliances, transformers, motors, generators, switchgear, relays, industrial controls, batteries, communication and energy wire and cable, and wiring devices).

### **335991 CARBON AND GRAPHITE PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing carbon, graphite, and metal-graphite brushes and brush stock; carbon or graphite electrodes for thermal and electrolytic uses; carbon and graphite fibers; and other carbon, graphite, and metal-graphite products.

### **335999 ALL OTHER MISCELLANEOUS ELECTRICAL EQUIPMENT AND COMPONENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial and commercial electric apparatus and other equipment (except lighting equipment, household appliances, transformers, motors, generators, switchgear, relays, industrial controls, batteries, communication and energy wire and cable, wiring devices, and carbon and graphite products). This industry includes power converters (i.e., AC to DC and DC to AC), power supplies, surge suppressors, and similar equipment for industrial-type and consumer-type equipment.

### **336 TRANSPORTATION EQUIPMENT MANUFACTURING**

Industries in the Transportation Equipment Manufacturing subsector produce equipment for transporting people and goods. Transportation equipment is a type of machinery. An entire subsector is devoted to this activity because of the significance of its economic size in all three North American countries.

Establishments in this subsector utilize production processes similar to those of other machinery manufacturing establishments - bending, forming, welding, machining, and assembling metal or plastic parts into components and finished products. However, the assembly of components and subassemblies and their further assembly into finished vehicles tends to be a more common production process in this subsector than in the Machinery Manufacturing subsector.

NAICS has industry groups for the manufacture of equipment for each mode of transport - road, rail, air and water. Parts for motor vehicles warrant a separate industry group because of their importance and because parts manufacture requires less assembly, and the establishments that manufacture only parts are not as vertically integrated as those that make complete vehicles.

Land use motor vehicle equipment not designed for highway operation (e.g., agricultural equipment, construction equipment, and materials handling equipment) is classified in the appropriate NAICS subsector based on the type and use of the equipment.

### **3361 MOTOR VEHICLE MANUFACTURING**

This industry group comprises establishments primarily engaged in:

1. Automobile and light duty motor vehicle manufacturing and/or
2. Heavy duty truck manufacturing.

### **33611 AUTOMOBILE AND LIGHT DUTY MOTOR VEHICLE MANUFACTURING**

This industry comprises establishments primarily engaged in:

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1. manufacturing complete automobile and light duty motor vehicles (i.e., body and chassis or unibody) or
  2. manufacturing chassis only.

### **336111 AUTOMOBILE MANUFACTURING**

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

1. manufacturing complete automobiles (i.e., body and chassis or unibody) or
2. manufacturing automobile chassis only.

### **336112 LIGHT TRUCK AND UTILITY VEHICLE MANUFACTURING**

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

1. manufacturing complete light trucks and utility vehicles (i.e., body and chassis) or
2. manufacturing light truck and utility vehicle chassis only.

Vehicles made include light duty vans, pick-up trucks, minivans, and sport utility vehicles.

### **33612 HEAVY DUTY TRUCK MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. manufacturing heavy duty truck chassis and assembling complete heavy duty trucks, buses, heavy duty motor homes, and other special purpose heavy duty motor vehicles for highway use or
2. manufacturing heavy duty truck chassis only.

### **336120 HEAVY DUTY TRUCK MANUFACTURING**

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

1. manufacturing heavy duty truck chassis and assembling complete heavy duty trucks, buses, heavy duty motor homes, and other special purpose heavy duty motor vehicles for highway use or
2. manufacturing heavy duty truck chassis only.

### **3362 MOTOR VEHICLE BODY AND TRAILER MANUFACTURING**

This industry group comprises establishments primarily engaged in:

1. Manufacturing motor vehicle bodies and cabs or
2. Manufacturing truck, automobile and utility trailers, truck trailer chassis, detachable trailer bodies, and detachable trailer chassis.

The products made may be sold separately or may be assembled on purchased chassis and sold as complete vehicles.

Motor homes are units where the motor and the living quarters are contained in the same integrated unit, while travel trailers are designed to be towed by a motor unit, such as an automobile or a light truck.

### **33621 MOTOR VEHICLE BODY AND TRAILER MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. manufacturing motor vehicle bodies and cabs or
2. manufacturing truck, automobile and utility trailers, truck trailer chassis, detachable trailer bodies, and detachable trailer chassis.

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The products made may be sold separately or may be assembled on purchased chassis and sold as complete vehicles.

Motor homes are units where the motor and the living quarters are contained in the same integrated unit, while travel trailers are designed to be towed by a motor unit, such as an automobile or a light truck.

### **336211 MOTOR VEHICLE BODY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing truck and bus bodies and cabs and automobile bodies. The products made may be sold separately or may be assembled on purchased chassis and sold as complete vehicles.

### **336212 TRUCK TRAILER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing truck trailers, truck trailer chassis, cargo container chassis, detachable trailer bodies, and detachable trailer chassis for sale separately.

### **336213 MOTOR HOME MANUFACTURING**

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

1. manufacturing motor homes on purchased chassis and/or
2. manufacturing conversion vans on an assembly line basis.

Motor homes are units where the motor and the living quarters are integrated in the same unit.

### **336214 TRAVEL TRAILER AND CAMPER MANUFACTURING**

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

1. manufacturing travel trailers and campers designed to attach to motor vehicles;
2. manufacturing pickup coaches (i.e., campers) and caps (i.e., covers) for mounting on pickup trucks; and
3. manufacturing automobile, utility, and light-truck trailers.

Travel trailers do not have their own motor but are designed to be towed by a motor unit, such as an automobile or a light truck.

### **3363 MOTOR VEHICLE PARTS MANUFACTURING**

This industry group comprises establishments primarily engaged in:

1. Motor vehicle gasoline engine and engine parts manufacturing;
2. Motor vehicle electrical and electronic equipment manufacturing;
3. Motor vehicle steering and suspension components (except spring) manufacturing;
4. Motor vehicle brake system manufacturing;
5. Motor vehicle transmission and power train parts manufacturing;
6. Motor vehicle seating and interior trim manufacturing;
7. Motor vehicle metal stamping; and/or
8. Other motor vehicle parts manufacturing.

### **33631 MOTOR VEHICLE GASOLINE ENGINE AND ENGINE PARTS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle gasoline engines, and engine parts, whether or not for vehicular use.

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### **336311 CARBURETOR, PISTON, PISTON RING, AND VALVE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding carburetors, pistons, piston rings, and engine intake and exhaust valves.

### **336312 GASOLINE ENGINE AND ENGINE PARTS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding gasoline motor vehicle engines and gasoline motor vehicle engine parts, excluding carburetors, pistons, piston rings, and valves.

### **33632 MOTOR VEHICLE ELECTRICAL AND ELECTRONIC EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. manufacturing vehicular lighting and/or
2. manufacturing and/or rebuilding motor vehicle electrical and electronic equipment.

The products made can be used for all types of transportation equipment (i.e., aircraft, automobiles, trains, and ships).

### **336321 VEHICULAR LIGHTING EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing vehicular lighting fixtures.

### **336322 OTHER MOTOR VEHICLE ELECTRICAL AND ELECTRONIC EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding electrical and electronic equipment for motor vehicles and internal combustion engines.

### **33633 MOTOR VEHICLE STEERING AND SUSPENSION COMPONENTS (EXCEPT SPRING) MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle steering mechanisms and suspension components (except springs).

### **336330 MOTOR VEHICLE STEERING AND SUSPENSION COMPONENTS (EXCEPT SPRING) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle steering mechanisms and suspension components (except springs).

### **33634 MOTOR VEHICLE BRAKE SYSTEM MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle brake systems and related components.

### **336340 MOTOR VEHICLE BRAKE SYSTEM MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle brake systems and related components.

### **33635 MOTOR VEHICLE TRANSMISSION AND POWER TRAIN PARTS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle transmission and power train parts.

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### **336350 MOTOR VEHICLE TRANSMISSION AND POWER TRAIN PARTS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle transmission and power train parts.

### **33636 MOTOR VEHICLE SEATING AND INTERIOR TRIM MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing motor vehicle seating, seats, seat frames, seat belts, and interior trimmings.

### **336360 MOTOR VEHICLE SEATING AND INTERIOR TRIM MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing motor vehicle seating, seats, seat frames, seat belts, and interior trimmings.

### **33637 MOTOR VEHICLE METAL STAMPING**

This industry comprises establishments primarily engaged in manufacturing motor vehicle stampings, such as fenders, tops, body parts, trim, and molding.

### **336370 MOTOR VEHICLE METAL STAMPING**

This U.S. industry comprises establishments primarily engaged in manufacturing motor vehicle stampings, such as fenders, tops, body parts, trim, and molding.

### **33639 OTHER MOTOR VEHICLE PARTS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle parts and accessories (except motor vehicle gasoline engines and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, motor vehicle transmission and power train parts, motor vehicle seating and interior trim, and motor vehicle stampings).

### **336391 MOTOR VEHICLE AIR-CONDITIONING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing air-conditioning systems and compressors for motor vehicles, such as automobiles, trucks, buses, aircraft, farm machinery, construction machinery, and other related vehicles.

### **336399 ALL OTHER MOTOR VEHICLE PARTS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle parts and accessories (except motor vehicle gasoline engines and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, motor vehicle transmission and power train parts, motor vehicle seating and interior trim, motor vehicle stampings, and motor vehicle air-conditioning systems and compressors).

### **3364 AEROSPACE PRODUCT AND PARTS MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Manufacturing complete aircraft, missiles, or space vehicles;
2. Manufacturing aerospace engines, propulsion units, auxiliary equipment or parts;
3. Developing and making prototypes of aerospace products;
4. Aircraft conversion (i.e., major modifications to systems); and
5. Complete aircraft or propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

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### **33641 AEROSPACE PRODUCT AND PARTS MANUFACTURING**

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

1. manufacturing complete aircraft, missiles, or space vehicles;
2. manufacturing aerospace engines, propulsion units, auxiliary equipment or parts;
3. developing and making prototypes of aerospace products;
4. aircraft conversion (i.e., major modifications to systems); and
5. complete aircraft or propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

### **336411 AIRCRAFT MANUFACTURING**

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

1. manufacturing or assembling complete aircraft;
2. developing and making aircraft prototypes;
3. aircraft conversion (i.e., major modifications to systems); and
4. complete aircraft overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

### **336412 AIRCRAFT ENGINE AND ENGINE PARTS MANUFACTURING**

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

1. manufacturing aircraft engines and engine parts;
2. developing and making prototypes of aircraft engines and engine parts;
3. aircraft propulsion system conversion (i.e., major modifications to systems); and
4. aircraft propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft propulsion system to original design specifications).

### **336413 OTHER AIRCRAFT PARTS AND AUXILIARY EQUIPMENT MANUFACTURING**

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

1. manufacturing aircraft parts or auxiliary equipment (except engines and aircraft fluid power subassemblies) and/or
2. developing and making prototypes of aircraft parts and auxiliary equipment.

Auxiliary equipment includes such items as crop dusting apparatus, armament racks, inflight refueling equipment, and external fuel tanks.

### **336414 GUIDED MISSILE AND SPACE VEHICLE MANUFACTURING**

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

1. manufacturing complete guided missiles and space vehicles and/or
2. developing and making prototypes of guided missile or space vehicles.

### **336415 GUIDED MISSILE AND SPACE VEHICLE PROPULSION UNIT AND PROPULSION UNIT PARTS MANUFACTURING**

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

1. manufacturing guided missile and/or space vehicle propulsion units and propulsion unit parts and/or

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2. developing and making prototypes of guided missile and space vehicle propulsion units and propulsion unit parts.

### **336419 OTHER GUIDED MISSILE AND SPACE VEHICLE PARTS AND AUXILIARY EQUIPMENT MANUFACTURING**

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

1. manufacturing guided missile and space vehicle parts and auxiliary equipment (except guided missile and space vehicle propulsion units and propulsion unit parts) and/or
2. developing and making prototypes of guided missile and space vehicle parts and auxiliary equipment.

### **3365 RAILROAD ROLLING STOCK MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Manufacturing and/or rebuilding locomotives, locomotive frames, and parts;
2. Manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and
3. Manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

### **33651 RAILROAD ROLLING STOCK MANUFACTURING**

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

1. manufacturing and/or rebuilding locomotives, locomotive frames, and parts;
2. manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and
3. manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

### **336510 RAILROAD ROLLING STOCK MANUFACTURING**

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

1. manufacturing and/or rebuilding locomotives, locomotive frames, and parts;
2. manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and
3. manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

### **3366 SHIP AND BOAT BUILDING**

This industry group comprises establishments primarily engaged in operating shipyards or boat yards (i.e., ship or boat manufacturing facilities). Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for other than personal or recreational use. Boats are defined as watercraft typically suitable or intended for personal use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

### **33661 SHIP AND BOAT BUILDING**

This industry comprises establishments primarily engaged in operating shipyards or boat yards (i.e., ship or boat manufacturing facilities). Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for

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other than personal or recreational use. Boats are defined as watercraft typically suitable or intended for personal use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

### **336611 SHIP BUILDING AND REPAIRING**

This U.S. industry comprises establishments primarily engaged in operating a shipyard. Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for other than personal or recreational use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

### **336612 BOAT BUILDING**

This U.S. industry comprises establishments primarily engaged in building boats. Boats are defined as watercraft not built in shipyards and typically of the type suitable or intended for personal use.

### **3369 OTHER TRANSPORTATION EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing transportation equipment (except motor vehicles and parts, aerospace products and parts, railroad rolling stock, ship building, and boat manufacturing).

### **33699 OTHER TRANSPORTATION EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing motorcycles, bicycles, metal tricycles, complete military armored vehicles, tanks, self-propelled weapons, vehicles pulled by draft animals, and other transportation equipment (except motor vehicles, boats, ships, railroad rolling stock, and aerospace products), including parts thereof.

### **336991 MOTORCYCLE, BICYCLE, AND PARTS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing motorcycles, bicycles, tricycles and similar equipment, and parts.

### **336992 MILITARY ARMORED VEHICLE, TANK, AND TANK COMPONENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing complete military armored vehicles, combat tanks, specialized components for combat tanks, and self-propelled weapons.

### **336999 ALL OTHER TRANSPORTATION EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing transportation equipment (except motor vehicles, motor vehicle parts, boats, ships, railroad rolling stock, aerospace products, motorcycles, bicycles, and armored vehicles and tanks).

### **337 FURNITURE AND RELATED PRODUCT MANUFACTURING**

Industries in the Furniture and Related Product Manufacturing subsector make furniture and related articles, such as mattresses, window blinds, cabinets, and fixtures. The processes used in the manufacture of furniture include the cutting, bending, molding, laminating, and assembly of such materials as wood, metal, glass, plastics, and rattan. However, the production process for

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furniture is not solely bending metal, cutting and shaping wood, or extruding and molding plastics. Design and fashion trends play an important part in the production of furniture. The integrated design of the article for both esthetic and functional qualities is also a major part of the process of manufacturing furniture. Design services may be performed by the furniture establishment's work force or may be purchased from industrial designers.

Furniture may be made of any material, but the most common ones used in North America are metal and wood. Furniture manufacturing establishments may specialize in making articles primarily from one material. Some of the equipment required to make a wooden table, for example, is different from that used to make a metal one. However, furniture is usually made from several materials. A wooden table might have metal brackets, and a wooden chair a fabric or plastics seat. Therefore, in NAICS, furniture initially is classified based on the type of furniture (application for which it is designed) rather than the material used. For example, an upholstered sofa is treated as household furniture, although it may also be used in hotels or offices.

When classifying furniture according to the component material from which it is made, furniture made from more than one material is classified based on the material used in the frame, or if there is no frame, the predominant component material. Upholstered household furniture (excluding kitchen and dining room chairs with upholstered seats) is classified without regard to the frame material. Kitchen or dining room chairs with upholstered seats are classified according to the frame material.

Furniture may be made on a stock or custom basis and may be shipped assembled or unassembled (i.e., knockdown). The manufacture of furniture parts and frames is included in this subsector.

Some of the processes used in furniture manufacturing are similar to processes that are used in other segments of manufacturing. For example, cutting and assembly occurs in the production of wood trusses that are classified in Subsector 321, Wood Product Manufacturing. However, the multiple processes that distinguish wood furniture manufacturing from wood product manufacturing warrant inclusion of wooden furniture manufacturing in the Furniture and Related Product Manufacturing subsector. Metal furniture manufacturing uses techniques that are also employed in the manufacturing of roll-formed products classified in Subsector 332, Fabricated Metal Product Manufacturing. The molding process for plastics furniture is similar to the molding of other plastics products. However, plastics furniture producing establishments tend to specialize in furniture.

NAICS attempts to keep furniture manufacturing together, but there are two notable exceptions: seating for transportation equipment and laboratory and hospital furniture. These exceptions are related to that fact that some of the aspects of the production process for these products, primarily the design, are highly integrated with that of other manufactured goods, namely motor vehicles and health equipment.

### **3371 HOUSEHOLD AND INSTITUTIONAL FURNITURE AND KITCHEN CABINET MANUFACTURING**

This industry group comprises establishments manufacturing household-type furniture, such as living room, kitchen and bedroom furniture and institutional (i.e., public building) furniture, such as furniture for schools, theaters, and churches.

#### **33711 WOOD KITCHEN CABINET AND COUNTERTOP MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing wood or plastics laminated on wood kitchen cabinets, bathroom vanities, and countertops (except freestanding). The cabinets and counters may be made on a stock or custom basis.

##### **337110 WOOD KITCHEN CABINET AND COUNTERTOP MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood or plastics laminated on wood kitchen cabinets, bathroom vanities, and countertops (except freestanding). The cabinets and counters may be made on a stock or custom basis.

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### **33712 HOUSEHOLD AND INSTITUTIONAL FURNITURE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing household-type and public building furniture (i.e., library, school, theater, and church furniture). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

#### **337121 UPHOLSTERED HOUSEHOLD FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing upholstered household-type furniture. The furniture may be made on a stock or custom basis.

#### **337122 NONUPHOLSTERED WOOD HOUSEHOLD FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonupholstered wood household-type furniture and freestanding cabinets (except television, radio, and sewing machine cabinets). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

#### **337124 METAL HOUSEHOLD FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal household-type furniture and freestanding cabinets. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

#### **337125 HOUSEHOLD FURNITURE (EXCEPT WOOD AND METAL) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing household-type furniture of materials other than wood or metal, such as plastics, reed, rattan, wicker, and fiberglass. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

#### **337127 INSTITUTIONAL FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing institutional-type furniture (e.g., library, school, theater, and church furniture). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

#### **337129 WOOD TELEVISION, RADIO, AND SEWING MACHINE CABINET MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood cabinets used as housings by television, stereo, loudspeaker, and sewing machine manufacturers.

### **3372 OFFICE FURNITURE (INCLUDING FIXTURES) MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing office furniture and/or office and store fixtures. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

#### **33721 OFFICE FURNITURE (INCLUDING FIXTURES) MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing office furniture and/or office and store fixtures. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

##### **337211 WOOD OFFICE FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

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### **337212 CUSTOM ARCHITECTURAL WOODWORK AND MILLWORK MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing custom designed interiors consisting of architectural woodwork and fixtures utilizing wood, wood products, and plastics laminates. All of the industry output is made to individual order on a job shop basis and requires skilled craftsmen as a labor input. A job might include custom manufacturing of display fixtures, gondolas, wall shelving units, entrance and window architectural detail, sales and reception counters, wall paneling, and matching furniture.

### **337214 OFFICE FURNITURE (EXCEPT WOOD) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonwood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

### **337215 SHOWCASE, PARTITION, SHELVING, AND LOCKER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood and nonwood office and store fixtures, shelving, lockers, frames, partitions, and related fabricated products of wood and nonwood materials, including plastics laminated fixture tops. The products are made on a stock basis and may be assembled or unassembled (i.e., knockdown). Establishments exclusively making furniture parts (e.g., frames) are included in this industry.

### **337211 WOOD OFFICE FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

### **337214 OFFICE FURNITURE (EXCEPT WOOD) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonwood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

### **3379 OTHER FURNITURE RELATED PRODUCT MANUFACTURING**

This industry group comprises establishments manufacturing furniture related products, such as mattresses, blinds, and shades.

### **33791 MATTRESS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing innerspring, box spring, and noninnerspring mattresses, including mattresses for waterbeds.

### **337910 MATTRESS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing innerspring, box spring, and noninnerspring mattresses, including mattresses for waterbeds.

### **33792 BLIND AND SHADE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing one or more of the following: venetian blinds, other window blinds, shades; curtain and drapery rods, poles; and/or curtain and drapery fixtures. The blinds and shades may be made on a stock or custom basis and may be made of any material.

### **337920 BLIND AND SHADE MANUFACTURING**

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

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1. venetian blinds, other window blinds, shades;
  2. curtain and drapery rods, poles; and/or
  3. curtain and drapery fixtures.

The blinds and shades may be made on a stock or custom basis and may be made of any material.

### **339 MISCELLANEOUS MANUFACTURING**

Industries in the Miscellaneous Manufacturing subsector make a wide range of products that cannot readily be classified in specific NAICS subsectors in manufacturing. Processes used by these establishments vary significantly, both among and within industries. For example, a variety of manufacturing processes are used in manufacturing sporting and athletic goods that include products, such as tennis racquets and golf balls. The processes for these products differ from each other, and the processes differ significantly from the fabrication processes used in making dolls or toys, the melting and shaping of precious metals to make jewelry, and the bending, forming, and assembly used in making medical products.

The industries in this subsector are defined by what is made rather than how it is made. Although individual establishments might be appropriately classified elsewhere in the NAICS structure, for historical continuity, these product-based industries were maintained. In most cases, no one process or material predominates for an industry.

Establishments in this subsector manufacture products as diverse as medical equipment and supplies, jewelry, sporting goods, toys, and office supplies.

#### **3391 MEDICAL EQUIPMENT AND SUPPLIES MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing medical equipment and supplies. Examples of products made by these establishments are laboratory apparatus and furniture, surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, dentures, and orthodontic appliances.

##### **33911 MEDICAL EQUIPMENT AND SUPPLIES MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing medical equipment and supplies. Examples of products made by these establishments are laboratory apparatus and furniture, surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, dentures, and orthodontic appliances.

###### **339111 LABORATORY APPARATUS AND FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing laboratory apparatus and laboratory and hospital furniture (except dental). Examples of products made by these establishments are hospital beds, operating room tables, laboratory balances and scales, furnaces, ovens, centrifuges, cabinets, cases, benches, tables, and stools.

For this industry, the 1997 Economic Census did not fully implement the conversion to NAICS. The data from 1997 to 2001 for NAICS industry 339111 did not include establishments primarily engaged in the manufacture of hospital beds and other hospital furniture. These establishments are included in the 2002 Economic Census data.

###### **339112 SURGICAL AND MEDICAL INSTRUMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing medical, surgical, ophthalmic, and veterinary instruments and apparatus (except electrotherapeutic, electro-medical and irradiation apparatus). Examples of products made by these establishments are syringes, hypodermic needles, anesthesia apparatus, blood transfusion equipment, catheters, surgical clamps, and medical thermometers.

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### **339113 SURGICAL APPLIANCE AND SUPPLIES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing surgical appliances and supplies. Examples of products made by these establishments are orthopedic devices, prosthetic appliances, surgical dressings, crutches, surgical sutures, and personal industrial safety devices (except protective eyewear).

### **339114 DENTAL EQUIPMENT AND SUPPLIES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing dental equipment and supplies used by dental laboratories and offices of dentists, such as dental chairs, dental instrument delivery systems, dental hand instruments, and dental impression material and dental cements.

### **339115 OPHTHALMIC GOODS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing ophthalmic goods. Examples of products made by these establishments are prescription eyeglasses (except manufactured in a retail setting), contact lenses, sunglasses, eyeglass frames, reading glasses made to standard powers, and protective eyewear.

### **339116 DENTAL LABORATORIES**

This U.S. industry comprises establishments primarily engaged in manufacturing dentures, crowns, bridges, and orthodontic appliances customized for individual application.

### **3399 OTHER MISCELLANEOUS MANUFACTURING**

This industry group comprises establishments primarily engaged in one or more of the following:

1. Jewelry and silverware manufacturing;
2. Sporting and athletic goods manufacturing;
3. Doll, toy, and game manufacturing;
4. Office supplies (except paper) manufacturing;
5. Sign manufacturing; and/or
6. All other miscellaneous manufacturing.

### **33991 JEWELRY AND SILVERWARE MANUFACTURING**

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

1. manufacturing, engraving, chasing, or etching jewelry;
2. manufacturing metal personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases);
3. manufacturing, engraving, chasing, or etching precious metal solid, precious metal clad, or pewter cutlery and flatware;
4. manufacturing, engraving, chasing, or etching personal metal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases);
5. stamping coins;
6. manufacturing unassembled jewelry parts and stock shop products, such as sheet, wire, and tubing;
7. cutting, slabbing, tumbling, carving, engraving, polishing, or faceting precious or semiprecious stones and gems;
8. recutting, repolishing, and setting gem stones; and

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9. drilling, sawing, and peeling cultured and costume pearls.

### **339911 JEWELRY (EXCEPT COSTUME) MANUFACTURING**

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

1. manufacturing, engraving, chasing, or etching precious metal solid or precious metal clad jewelry;
2. manufacturing, engraving, chasing, or etching personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases) made of precious solid or clad metal; and
3. stamping coins.

### **339912 SILVERWARE AND HOLLOWWARE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing, engraving, chasing, or etching precious metal solid, precious metal clad, or pewter flatware and other hollowware.

### **339913 JEWELERS' MATERIAL AND LAPIDARY WORK MANUFACTURING**

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

1. manufacturing unassembled jewelry parts and stock shop products, such as sheet, wire, and tubing;
2. cutting, slabbing, tumbling, carving, engraving, polishing, or faceting precious or semiprecious stones and gems;
3. recutting, repolishing, and setting gem stones; and
4. drilling, sawing, and peeling cultured pearls.

### **339914 COSTUME JEWELRY AND NOVELTY MANUFACTURING**

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

1. manufacturing, engraving, chasing, and etching costume jewelry; and/or
2. manufacturing, engraving, chasing, or etching nonprecious metal personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases).

This industry includes establishments primarily engaged in manufacturing precious plated jewelry and precious plated personal goods.

### **33992 SPORTING AND ATHLETIC GOODS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing sporting and athletic goods (except apparel and footwear).

### **339920 SPORTING AND ATHLETIC GOODS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing sporting and athletic goods (except apparel and footwear).

### **33993 DOLL, TOY, AND GAME MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing dolls, toys, and games, such as complete dolls, doll parts, doll clothes, action figures, toys, games (including electronic), hobby kits, and children's vehicles (except metal bicycles and tricycles).

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### **339931 DOLL AND STUFFED TOY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing complete dolls, doll parts, and doll clothes; action figures; and stuffed toys.

### **339932 GAME, TOY, AND CHILDREN'S VEHICLE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing games (including electronic), toys, and children's vehicles (except bicycles and metal tricycles).

### **33994 OFFICE SUPPLIES (EXCEPT PAPER) MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing office supplies. Examples of products made by these establishments are pens, pencils, felt tip markers, crayons, chalk, pencil sharpeners, staplers, hand operated stamps, modeling clay, and inked ribbons.

### **339941 PEN AND MECHANICAL PENCIL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing pens, ballpoint pen refills and cartridges, mechanical pencils, and felt tipped markers.

### **339942 LEAD PENCIL AND ART GOOD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonmechanical pencils and art goods. Examples of products made by these establishments are pencil leads, crayons, chalk, framed blackboards, pencil sharpeners, staplers, artists' palettes and paints, and modeling clay.

### **339943 MARKING DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing marking devices, such as hand operated stamps, embossing stamps, stamp pads, and stencils.

### **339944 CARBON PAPER AND INKED RIBBON MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing carbon paper and inked ribbons.

### **33995 SIGN MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing signs and related displays of all materials (except printing paper and paperboard signs, notices, and displays).

### **339950 SIGN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing signs and related displays of all materials (except printing paper and paperboard signs, notices, and displays).

### **33999 ALL OTHER MISCELLANEOUS MANUFACTURING**

This industry comprises establishments primarily engaged in miscellaneous manufacturing (except medical equipment and supplies, jewelry and flatware, sporting and athletic goods, dolls, toys, games, office supplies (except paper), and signs).

### **339991 GASKET, PACKING, AND SEALING DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing gaskets, packing, and sealing devices of all materials.

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### **339992 MUSICAL INSTRUMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing musical instruments (except toys).

### **339993 FASTENER, BUTTON, NEEDLE, AND PIN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing fasteners, buttons, needles, pins, and buckles (except precious metals or precious and semiprecious stones and gems).

### **339994 BROOM, BRUSH, AND MOP MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing brooms, mops, and brushes.

### **339995 BURIAL CASKET MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing burial caskets, cases, and vaults (except concrete).

### **339999 ALL OTHER MISCELLANEOUS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in miscellaneous manufacturing (except medical equipment and supplies, jewelry and flatware, sporting and athletic goods, dolls, toys, games, office supplies (except paper), musical instruments, fasteners, buttons, needles, pins, brooms, brushes, mops, and burial caskets).

# Appendix C.

## Methodology

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### SOURCES OF THE DATA

The manufacturing sector includes approximately 350,000 establishments. This number includes those industries in the North American Industry Classification System (NAICS) definition of manufacturing. The amount of information requested from manufacturing establishments was 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 (ASM).

Establishments in the 2002 Economic Census are divided into those sent report forms and those not sent report forms. The coverage of and the method of obtaining census information from each are described below:

1. Establishments sent a report form:

- a. ASM sample establishments. This group accounts for approximately 15 percent of all manufacturing establishments. The ASM panel covers 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. For more information, see the Description of the ASM Survey Sample.

In an economic census year, the ASM report form (MA-10000) 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 additional information on gross book value of assets and capital expenditures. ASM establishments were also requested to provide information on retirements, depreciation, rental payments, and supplemental labor costs. For establishments not included in the ASM, these additional items were estimated using relationships observed in the ASM establishment data. The census statistics for these variables are a sum of the ASM establishment data and the estimated data for non-ASM establishments. ASM establishments were also requested to provide information for selected purchased services. The census statistics for the purchased service items were derived solely from the ASM establishments. See Appendix A. Explanation of Terms, for an explanation of these items. The census part of the report form is 1 of 220 versions containing product, material, and special inquiries. The diversity of manufacturing activities necessitated the use of this many forms to canvass the 473 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 perform. Respondents were requested to identify the products, the value of each product, and, in certain 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

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for the respondent to describe significant materials not listed on the form.

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

- b. Large and medium establishments (non-ASM). Approximately 30 percent of all manufacturing establishments were included in this group. A variable cutoff, based on administrative-record payroll data and determined on an industry-by-industry basis, was used to select those establishments that were to receive 1 of the 220 economic census — manufacturing 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 includes approximately 15 percent of all manufacturing establishments. For those industries where application of the variable cutoff for administrative-record cases resulted in a large number of small establishments being included in the mail canvass, an abbreviated “short form” was used. These establishments received 1 of the 31 versions of the short form, which requested summary product and material data and totals but no details on employment, payroll, cost of materials, inventories, and capital expenditures.

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

## 2. Establishments not sent a report form:

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

Estimates of data for these small establishments were developed using industry averages in conjunction with the administrative information. The value of shipments and 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” (nsk) categories.

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

Sometimes the administrative-record cases had only two- or three-digit NAICS group classification codes available in the files. For manufacturing, these establishments were sent a

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separate classification form, which requested information on the products and services of the establishment. This form was used to code many of these establishments to the appropriate six-digit NAICS level. Establishments that did not return the classification form were coded later to those six-digit NAICS industries identified as “All other” industries within the given subsector.

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

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

- b. All nonemployers, i.e., all firms subject to federal income tax, with no paid employees, during 2002 are excluded as in previous censuses. Data for nonemployers are not included in this report, but are released in the annual *Nonemployer Statistics* series.

The report forms used to collect information for establishments in this sector are available at [help.econ.census.gov/econhelp/resources/](http://help.econ.census.gov/econhelp/resources/).

A more detailed examination of census methodology is presented in the *History of the Economic Census* at [www.census.gov/econ/www/history.html](http://www.census.gov/econ/www/history.html).

## **INDUSTRY CLASSIFICATION OF ESTABLISHMENTS**

The classifications for all establishments covered in the 2002 Economic Census — Manufacturing are classified in 1 of 473 industries in accordance with the industry definitions in the *North American Industry Classification System (NAICS), United States, 2002* manual. There were no changes between the 2002 edition and the 1997 edition affecting this sector. When applicable, Appendix F of this report shows the product class and product comparability between the two systems for data in this report.

In the NAICS system, an industry is generally defined as a group of establishments that have similar production processes. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added by manufacture, value of shipments, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the manufacturing sector for 2002, there are 21 subsectors (three-digit NAICS), 86 industry groups (four-digit NAICS), 184 NAICS industries (five-digit NAICS) that are comparable with Canadian and Mexican classification, and 473 U.S. industries (six-digit NAICS). Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they originate. There are 1,450 product classes (seven-digit codes), 5,674 census products, and an additional 3,746 ten-digit product codes. The ten-digit products are considered the primary products of the industry with the same first six digits.

For the 2002 Economic Census — Manufacturing, all establishments were classified in particular industries based on the products they produced. If an establishment made products of more than one industry, it was classified in the industry with the largest product value. For 2002, there were no “resistance rules” or “frozen industries.”

In ASM years, establishments included in the ASM sample with certainty weights 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. However, in the following census year, these ASM plants are allowed to shift from one industry to another.

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The results of these rules covering the switching of plants from one industry classification to another are that some industries comprise different mixes of establishments in different survey years. Hence, comparisons between prior-year and current-year published totals, particularly at the six-digit NAICS 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-record 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.

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

The extent to which industry and product statistics may be matched with each other is measured by the primary product specialization ratio and the coverage ratio. The primary product specialization ratio is the proportion of industry shipments accounted for by the primary products of establishments classified in the industry. The coverage ratio is the proportion of product shipments accounted for by establishments classified in the industry.

#### **ESTABLISHMENT BASIS OF REPORTING**

The 2002 Economic Census — Manufacturing is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each location or establishment. 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 2002, 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.

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

#### **DESCRIPTION OF THE ASM SURVEY SAMPLE**

The ASM sample is drawn for the second survey year after a census. The most recent sample was drawn for the 1999 survey year based on the 1997 Economic Census — Manufacturing. This sample will be in place through the 2003 ASM.

In 1997, there were approximately 370,000 individual manufacturing establishments. For sample efficiency and cost considerations, the establishments in the 1997 manufacturing population were partitioned into two components for developing estimates within the ASM. The details of each are described below:

1. Mail stratum. The mail stratum of the survey is comprised of larger single-location manufacturing companies and all manufacturing establishments of multiunit companies (companies

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that operate at more than one physical location). Approximately 200,000 of the 370,000 establishments in the 1997 census were assigned to the mail stratum. On an annual basis, the mail stratum is supplemented with larger, newly active single-location companies identified from a list provided by the Internal Revenue Service (IRS) and new manufacturing locations of multiunit companies identified from the Census Bureau's Company Organization Survey (COS).

For the 1999 survey, a new sample of approximately 58,000 individual establishments was selected from the mail stratum assembled from the 1997 census. Supplemental samples representing both 1998 and 1999 births (newly active establishments that were not included in the 1997 census) were also selected. Establishments selected for the sample are mailed an ASM survey questionnaire for each year through 2003.

The 1999-2003 ASM sample design is similar to the one used since 1984. Companies in the 1997 Economic Census — Manufacturing with manufacturing shipments of at least \$500 million were defined as company certainties. For these large companies, each manufacturing establishment is included in the mail sample. For the 1999-2003 sample, there are approximately 500 certainty companies collectively accounting for over 18,000 establishments.

For the remaining portion of the mail component of the survey, the establishment was defined as the sample unit. All establishments with 250 employees or more were defined as employment certainties. Across these arbitrary certainty classes, there were approximately 25,000 establishments included in the sample with certainty. Collectively, these certainty establishments accounted for approximately 80 percent of the total value of shipments in the 1997 Economic Census — Manufacturing.

Smaller establishments in the remaining portion of the mail stratum were sampled with probabilities ranging from .02 to 1.00. The initial probabilities of selection assigned to these establishments were proportionate to a measure-of-size determined for each establishment. The measure-of-size was a function of the establishment's 1997 industry classification and its 1997 product class data. For each product class (1,755) and six-digit industry (473), a desired reliability constraint was specified. Using a technique developed by Dr. James R. Chromy of the Research Triangle Institute, the initial establishment probabilities were optimized such that the expected sample satisfied all industry and product class reliability constraints, while the sample size was minimized. This technique reduces the likelihood of selecting nonrepresentative samples for individual product classes or industries.

This method of assigning probabilities based on product class shipments is motivated by the Census Bureau's primary desire to produce reliable estimates of both product class and industry shipments. The high correlation between shipments and employment, value-added, and other general statistics assures that these variables will also be well represented by the sample. The actual sample selection procedure uses an independent chance of selection method (Poisson sampling) that permits us to prevent small establishments from being selected in consecutive samples without introducing a bias into the survey estimates.

2. Nonmail stratum. The initial nonmail component of the survey was comprised of approximately 170,000 small, single-establishment companies that were tabulated as administrative records in the 1997 Economic Census — Manufacturing. The nonmail stratum is also supplemented annually using the list of newly active single-location companies provided by the Internal Revenue Service (IRS) and payroll cutoffs. Companies with payroll below the payroll cutoff are added to the nonmail stratum. For this portion of the population, sampling is not used. The data for this group are estimated based on selected information obtained annually from the administrative records of the IRS and Social Security Administration (SSA). This administrative information, which includes payroll, total employment, industry classification, and physical location, is obtained under conditions which safeguard the confidentiality of both tax and census records.

## **RELIABILITY OF DATA**

All data compiled in the economic census are subject to nonsampling errors. Nonsampling errors can be attributed to many sources during the development or execution of the census. The following are two ways that further explain this method: ASM Estimating Procedure. Most of the ASM

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estimates derived for the mail stratum are computed using a difference estimator. At the establishment level, there is a strong correlation between the current-year data values and the corresponding 1997 (base) data values. Therefore, within the mailed stratum, for each item at each level of aggregation, an estimate of the “difference” between the current year and the base year is computed from sample cases and added to the corresponding base-year values. For the 1998-2002 ASM estimates, the 1997 Economic Census — Manufacturing values serve as the base year. For the 2003 ASM, the base will be updated to be the 2002 Economic Census — Manufacturing.

Due to the positive year-to-year correlation, estimates derived using this methodology are generally more reliable than comparable estimates developed from the current sample data alone. Estimates for the capital expenditures variables are not generated using the difference estimator because the year-to-year correlations are considerably weaker. The standard linear estimator is used for these variables.

For the nonmail stratum, estimates for payroll and employment are directly tabulated from the administrative-record data provided by IRS and SSA. Estimates of data other than payroll and employment are developed from industry averages. Although the nonmail stratum contained approximately 170,000 individual establishments in 1999, it accounts for less than 2 percent of the estimate for total value of shipments at the total manufacturing level.

Corresponding estimates for the mail and nonmail components are combined to produce the estimates included in this publication. ASM Data Qualifications. The estimates developed from the sample are apt to differ somewhat from the results of a survey covering all companies in the sample lists, but otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

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

Estimates of the standard errors have been computed from the sample data for selected ASM statistics in this report. They are represented 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:

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

An inference 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.

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

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

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables in this publication having an associated standard error exceeding 15 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

#### **DUPLICATION IN COST OF MATERIALS AND VALUE OF SHIPMENTS**

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

#### **VALUE OF INDUSTRY SHIPMENTS COMPARED WITH VALUE OF PRODUCT SHIPMENTS**

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

#### **DISCLOSURE**

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

The disclosure analysis for the industry statistics files 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 capital expenditures. Nonetheless, the suppressed data are included in higher-level totals. A separate disclosure analysis is performed for capital expenditures, which can be suppressed even though value of shipments data are published.

# Appendix D.

## Geographic Notes

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### **VIRGINIA**

**Castlewood** disincorporated in January 1998. This change adds territory to the Balance of Russell County.

**Clifton Forge**, formerly an independent city, changed to town status in July 2001. It is now located in Alleghany County.

**Farmville** is in Cumberland and Prince Edward Counties.

**Hillsville** is now tabulated separately due to a population increase. This change deletes territory from the Balance of Carroll County.

**Pearisburg** is now tabulated separately due to a population increase. This change deletes territory from the Balance of Giles County.

**Purcellville** is now tabulated separately due to a population increase. This change deletes territory from the Balance of Loudoun County.

**Alleghany County** includes Clifton Forge, which changed from an independent city to a town in July 2001.

**Balance of Carroll County** no longer includes Hillsville, which is tabulated separately due to a population increase.

**Balance of Giles County** no longer includes Pearisburg, which is tabulated separately due to a population increase.

**Balance of Loudoun County** no longer includes Purcellville, which is tabulated separately due to a population increase.

**Balance of Russell County** gained territory due to the disincorporation of Castlewood.

# Appendix E.

## Metropolitan and Micropolitan Statistical Areas

### **JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA COMBINED STATISTICAL AREA**

#### **Bristol, VA Metropolitan Statistical Area**

Washington County, VA

Bristol (IC), VA

#### **Johnson City, TN Metropolitan Statistical Area**

Carter County, TN

Unicoi County, TN

Washington County, TN

#### **Kingsport-Bristol, TN-VA Metropolitan Statistical Area**

Hawkins County, TN

Sullivan County, TN

Scott County, VA

### **WASHINGTON-BALTIMORE-NORTHERN VIRGINIA, DC-MD-VA-WV COMBINED STATISTICAL AREA**

#### **Baltimore-Towson, MD Metropolitan Statistical Area**

Anne Arundel County, MD

Baltimore County, MD

Carroll County, MD

Harford County, MD

Howard County, MD

Queen Anne's County, MD

Baltimore (IC), MD

#### **Lexington Park, MD Micropolitan Statistical Area**

St. Mary's County, MD

#### **Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area**

##### ***Bethesda-Frederick-Gaithersburg, MD Metropolitan Division***

Frederick County, MD

Montgomery County, MD

##### ***Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division***

District of Columbia, DC

Calvert County, MD

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Charles County, MD  
Prince George's County, MD  
Arlington County, VA  
Clarke County, VA  
Fairfax County, VA  
Fauquier County, VA  
Loudoun County, VA  
Prince William County, VA  
Spotsylvania County, VA  
Stafford County, VA  
Warren County, VA  
Alexandria (IC), VA  
Fairfax (IC), VA  
Falls Church (IC), VA  
Fredericksburg (IC), VA  
Manassas (IC), VA  
Manassas Park (IC), VA  
Jefferson County, WV

**Winchester, VA-WV Metropolitan Statistical Area**

Frederick County, VA  
Winchester (IC), VA  
Hampshire County, WV

**BLACKSBURG-CHRISTIANSBURG-RADFORD, VA METROPOLITAN STATISTICAL AREA**

Giles County, VA  
Montgomery County, VA  
Pulaski County, VA  
Radford (IC), VA

**BLUEFIELD, WV-VA MICROPOLITAN STATISTICAL AREA**

Tazewell County, VA  
Mercer County, WV

**CHARLOTTESVILLE, VA METROPOLITAN STATISTICAL AREA**

Albemarle County, VA  
Fluvanna County, VA  
Greene County, VA  
Nelson County, VA  
Charlottesville (IC), VA

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**DANVILLE, VA METROPOLITAN STATISTICAL AREA**

Pittsylvania County, VA

Danville (IC), VA

**HARRISONBURG, VA METROPOLITAN STATISTICAL AREA**

Rockingham County, VA

Harrisonburg (IC), VA

**LYNCHBURG, VA METROPOLITAN STATISTICAL AREA**

Amherst County, VA

Appomattox County, VA

Bedford County, VA

Campbell County, VA

Bedford (IC), VA

Lynchburg (IC), VA

**MARTINSVILLE, VA MICROPOLITAN STATISTICAL AREA**

Henry County, VA

Martinsville (IC), VA

**RICHMOND, VA METROPOLITAN STATISTICAL AREA**

Amelia County, VA

Caroline County, VA

Charles City County, VA

Chesterfield County, VA

Cumberland County, VA

Dinwiddie County, VA

Goochland County, VA

Hanover County, VA

Henrico County, VA

King and Queen County, VA

King William County, VA

Louisa County, VA

New Kent County, VA

Powhatan County, VA

Prince George County, VA

Sussex County, VA

Colonial Heights (IC), VA

Hopewell (IC), VA

Petersburg (IC), VA

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Richmond (IC), VA

**ROANOKE, VA METROPOLITAN STATISTICAL AREA**

Botetourt County, VA

Craig County, VA

Franklin County, VA

Roanoke County, VA

Roanoke (IC), VA

Salem (IC), VA

**STAUNTON-WAYNESBORO, VA MICROPOLITAN STATISTICAL AREA**

Augusta County, VA

Staunton (IC), VA

Waynesboro (IC), VA

**VIRGINIA BEACH-NORFOLK-NEWPORT NEWS, VA-NC METROPOLITAN STATISTICAL AREA**

Currituck County, NC

Gloucester County, VA

Isle of Wight County, VA

James City County, VA

Mathews County, VA

Surry County, VA

York County, VA

Chesapeake (IC), VA

Hampton (IC), VA

Newport News (IC), VA

Norfolk (IC), VA

Poquoson (IC), VA

Portsmouth (IC), VA

Suffolk (IC), VA

Virginia Beach (IC), VA

Williamsburg (IC), VA

