

Virginia

1997

Issued May 2000

EC97M31A-VA

1997 Economic Census

Manufacturing

Geographic Area Series



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

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ACKNOWLEDGMENTS

The staff of the Manufacturing and Construction Division prepared this report. **Judy M. Dodds**, Assistant Chief for Census and Related Programs, was responsible for the overall planning, management, and coordination. **Robert Reinard**, Chief, Consumer Goods Industries Branch, assisted by **Suzanne Conard**, **Kaylene Hanks**, and **Robert Miller**, Section Chiefs, **Kenneth Hansen**, Chief, Investment Goods Industries Branch, assisted by **Mike Brown**, **Raphael Corrado**, and **Milbren Thomas**, Section Chiefs, **Nathaniel Shelton**, Chief, Primary Goods Industries Branch, assisted by **Renee Coley**, **Allen Foreman**, and **Joanna Nguyen**, Section Chiefs, and **Tom Lee**, **Robert Rosati**, and **Tom Flood**, Special Assistants, performed the planning and implementation. **Stephanie Angel**, **Brian Appert**, **Stanis Batton**, **Carol Beasley**, **Chris Blackburn**, **Larry Blumberg**, **Vera Harris-Bourne**, **Dana Brooks**, **Phillip Brown**, **Brenda Campbell**, **Vance Davis**, **Mary Ellickson**, **Matt Gaines**, **Merry Glascoe**, **Karen Harshbarger**, **Nancy Higgins**, **James Hinckley**, **Walter Hunter**, **Jim Jamski**, **Evelyn Jordan**, **Jacqueline Keller**, **Marc Klein**, **Robert Lee**, **John Linehan**, **Paul Marck**, **Keith McKenzie**, **Philippe Morris**, **Betty Pannell**, **Joyce Pomeroy**, **Cynthia Ramsey**, **Chris Savage**, **Arona Stovall**, **Sue Sundermann**, **Michael Taylor**, **Thanos Theodoropoulos**, **Dora Thomas**, **Ann Truffa**, **Ronanne Vinson**, **Keeley Voor**, **Denneth Wallace**, **Tempie Whittington**, **Lissene Witt**, **Phillip Woods**, and **Mike Yamaner** provided primary staff assistance.

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

Mendel D. Gayle, Chief, Forms, Publications, and Customer Services Branch, assisted by **Julius Smith Jr.** and **Baruti Taylor**, Section Chiefs, performed overall

coordination of the publication process.

Kim Credito, **Patrick Duck**, **Chip Murph**, **Wanda Sledd**, and **Veronica White** provided primary staff assistance.

The Economic Planning and Coordination Division, **Lawrence A. Blum**, Assistant Chief for Collection Activities and **Shirin A. Ahmed**, Assistant Chief for Post-Collection Processing, assisted by **Dennis Shoemaker**, Chief, Post-Collection Census Processing Branch, **Brandy Yarbrough**, Section Chief, **Sheila Proudfoot**, **Richard Williamson**, **Keith Fuller**, **Andrew W. Hait**, and **Jennifer E. Lins**, was responsible for developing the systems and procedures for data collection, editing, review, correction, and dissemination.

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

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

The Economic Statistical Methods and Programming Division, **Charles P. Pautler Jr.**, Chief, developed and coordinated the computer processing systems. **Martin S. Harahush**, Assistant Chief for Quinquennial Programs, assisted by **Barbara Lambert** and **Lisa Draper** were responsible for design and implementation of the computer systems. **Gary T. Sheridan**, Chief, Manufacturing and Construction Branch, **Lori A. Guido** and **Roy A. Smith**, Section Chiefs, supervised the preparation of the computer programs.

Computer Services Division, **Debra Williams**, Chief, performed the computer processing.

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

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U.S. Department of Commerce

William M. Daley,

Secretary

Robert L. Mallett,

Deputy Secretary

Economics

and Statistics

Administration

Robert J. Shapiro,

Under Secretary for

Economic Affairs

U.S. CENSUS BUREAU

Kenneth Prewitt,

Director



**Economics
and Statistics
Administration**

Robert J. Shapiro,
Under Secretary
for Economic Affairs



U.S. CENSUS BUREAU

Kenneth Prewitt,
Director

William G. Barron,
Deputy Director

Paula J. Schneider,
Principal Associate Director
for Programs

Frederick T. Knickerbocker,
Associate Director
for Economic Programs

Thomas L. Mesenbourg,
Assistant Director
for Economic Programs

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

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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

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

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

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

ALL-NEW INDUSTRY CLASSIFICATIONS

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

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information

52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Foodservices
81	Other Services (except Public Administration)

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

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

RELATIONSHIP TO SIC

While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

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

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, villages, and boroughs. Respondents were

required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from Internal Revenue Service tax forms is used as a basis for coding.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

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

Special Tabulations

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

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

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

HISTORICAL INFORMATION

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

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War II.

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

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census data:

A	Standard error of 100 percent or more.
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue.
N	Not available or not comparable.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

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

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Manufacturing

SCOPE

The 1997 Economic Census – Manufacturing covers all manufacturing establishments with one or more paid employees. Manufacturing is defined as the mechanical, physical, or chemical transformation of materials or substances into new products. The assembly of components into new products is also considered manufacturing, except when it is appropriately classified as construction.

Establishments in the manufacturing sector are often described as plants, factories, or mills and typically use power-driven machines and materials-handling equipment. Also included in the manufacturing sector are some establishments that make products by hand, like custom tailors and the makers of custom draperies. While manufacturers typically do not sell to the public, some establishments like bakeries and candy stores that make products on the premises may be included.

While logging and publishing are no longer in the scope of manufacturing, data for these industries are included in the manufacturing industry reports, but are not included in the manufacturing state, summary, and other reports.

GENERAL

This report, from the 1997 Economic Census – Manufacturing, is one of a series of 480 industry reports and 51 geographic area reports, each of which provides statistics for individual industries or states, respectively. Seven of the industry reports are for industries no longer in the manufacturing sector but are included with manufacturing for the 1997 census year. Also included for this sector are General, Product, and Materials Consumed Summary reports, a special report on Concentration Ratios in Manufacturing, and data files on Location of Manufacturing Plants.

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

State reports, which include the District of Columbia, present similar statistics at the “all manufacturing” level for each state and its metropolitan areas (MAs) 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.

The General Summary report contains industry and geographic area statistics summarized in one report. It includes higher levels of aggregation than the industry and state reports, as well as revisions to the data made after the release of the industry and state reports.

The Products and Materials Consumed reports summarize the products and materials data published in the industry reports. The Product Summary report also includes data from the Current Industrial Reports (CIR) and a special table with data for products that are primary to more than one industry, which are not in the industry reports.

The Concentration Ratios report publishes data on the percentage of value of shipments accounted for by the 4-, 8-, 20-, and 50-largest companies for each manufacturing industry. Also shown in this report are Hirschmann-Herfindahl Indexes for each industry.

The Location of Manufacturing data files contain 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.

GEOGRAPHIC AREAS COVERED

Statistics at the six-digit NAICS industry level are shown for states and the District of Columbia in both the state and industry reports for cells with 100 employees or more.

The state reports also include data at the “all manufacturing” level for a variety of geographies that meet the employment criteria.

Data are available for the metropolitan areas (MAs) with 250 employees or more. The term MA is a general term used to encompass all of the specifically defined metropolitan areas. A consolidated metropolitan statistical area (CMSA) is made up of two or more contiguous primary metropolitan statistical areas (PMSAs) with a combined population of at least 1 million. A PMSA is a subdivision of a CMSA that demonstrates very strong internal economic and social links separate from the ties to other portions of the CMSA. A metropolitan statistical area (MSA) is an integrated economic and social unit with a population of at least 50,000. An MA is made up of one or more counties meeting standards of metropolitan character. In New England, cities and towns, rather than counties, are the

component geographic units. Determination of the MAs was made by the Office of Management and Budget (OMB) as of June 30, 1997. The population estimates were from the 1990 Census of Population or a subsequent special census. When applicable, the make-up of an MA is included in Appendix E. Changes to geographical boundaries are noted in Appendix D.

The state reports include data for counties with 500 employees or more. These are the primary divisions of states, except in Louisiana where they are called parishes and in Alaska where they are called boroughs and census areas. Maryland, Missouri, Nevada, and Virginia have one or more places that are independent of county organizations. These places are treated as counties and places. The counties and places are defined as of January 1, 1997.

The state reports include data for places with 500 employees or more. Places are typically cities, towns, and villages. They may be incorporated municipalities, semi-independent municipalities, special economic urban areas (SEUAs), or other place equivalents.

The state reports also include data for consolidated cities with 500 employees or more. Consolidated cities are made up of separately incorporated municipalities.

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) has had a major impact on the comparability of data between the 1992 and 1997 censuses. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past. If industries are not comparable between the two censuses, historic data are not shown. When applicable, Appendix G shows the product class and product comparability between the two systems.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those leaving manufacturing are logging and portions of publishing. Prominent among the industries coming into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. Data for the industries coming into manufacturing as well as those leaving manufacturing are included in the manufacturing industry report series for 1997. However, the state and summary reports only include data for industries in the NAICS definition of manufacturing.

Another change resulting from the conversion to NAICS is that data for central administrative offices (CAOs) associated with manufacturing are not included along side the manufacturing data. This change affects data in the state reports and the general summary.

DISCLOSURE

In accordance with Federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments classified in a specific industry or geography is not considered a disclosure, and may be released even when other information is withheld.

The disclosure analysis for the industry statistics files is based on the total value of shipments. When the total value of shipments cannot be shown without disclosing information for individual companies, the complete line is suppressed except for capital expenditures. However, the suppressed data are included in higher-level totals. A separate disclosure analysis is performed for capital expenditures that 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 58,000 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 a Current Industrial Reports (CIR) program. The CIR publishes detailed product statistics for selected manufacturing industries at the U.S. level annually and, in some cases, monthly and/or quarterly. For the 1997 Economic Census – Manufacturing, the annual CIR data are included in the Product Summary report.

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.

Table 1. Industry Statistics for the State: 1997

[Includes data for industry groups and industries with 100 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
VIRGINIA													
31-33	Manufacturing	-	5 986	2 042	370 595	11 557 793	279 682	559 635	7 412 163	43 563 006	40 367 360	83 814 009	3 425 293
311	Food mfg.....	-	436	154	33 703	784 426	26 040	51 928	542 045	4 381 776	4 974 034	9 334 276	241 531
3111	Animal food mfg.....	-	32	11	803	20 653	461	1 034	12 325	92 935	502 967	596 912	D
31111	Animal food mfg.....	-	32	11	803	20 653	461	1 034	12 325	92 935	502 967	596 912	D
311111	Dog & cat food mfg...	-	4	2	147	4 046	120	294	3 303	17 450	47 961	65 624	D
311119	Other animal food mfg.....	-	28	9	656	16 607	341	740	9 022	75 485	455 006	531 288	D
3112	Grain & oilseed milling....	3	17	5	284	9 853	200	414	6 267	102 217	260 128	361 409	16 253
31121	Flour milling & malt mfg..	1	12	2	132	3 706	95	199	2 335	23 057	102 445	126 136	D
311211	Flour milling.....	1	12	2	132	3 706	95	199	2 335	23 057	102 445	126 136	D
31122	Starch & vegetable fats & oils mfg.....	4	5	3	152	6 147	105	215	3 932	79 160	157 683	235 273	D
311225	Fats & oils refining & blending.....	9	4	2	c	D	D	D	D	D	D	D	D
3113	Sugar & confectionery product mfg.....	-	16	6	1 563	34 712	1 347	2 558	26 607	282 982	163 280	445 141	D
31133	Confectionery mfg from purchased chocolate...	-	9	4	g	D	D	D	D	D	D	D	D
311330	Confectionery mfg from purchased chocolate.....	-	9	4	g	D	D	D	D	D	D	D	D
31134	Nonchocolate confectionery mfg.....	2	5	2	c	D	D	D	D	D	D	D	D
311340	Nonchocolate confectionery mfg...	2	5	2	c	D	D	D	D	D	D	D	D
3114	Fruit & vegetable preserving & specialty food mfg.....	1	17	10	2 115	46 238	1 769	3 456	33 754	232 744	193 215	426 193	D
31141	Frozen food mfg.....	-	7	4	1 285	25 825	1 144	2 103	21 717	186 248	109 549	295 752	D
311411	Frozen fruit, juice, & vegetable mfg.....	-	1	1	c	D	D	D	D	D	D	D	D
311412	Frozen specialty food mfg.....	-	6	3	g	D	D	D	D	D	D	D	2 278
31142	Fruit & vegetable canning, pickling, & drying.....	5	10	6	830	20 413	625	1 353	12 037	46 496	83 666	130 441	3 948
311421	Fruit & vegetable canning.....	5	9	6	f	D	D	D	D	D	D	D	D
3115	Dairy product mfg.....	-	15	12	2 245	75 764	1 419	3 199	42 620	758 782	506 767	1 266 462	27 180
31151	Dairy product (except frozen) mfg.....	-	11	10	g	D	D	D	D	D	D	D	25 192
311511	Fluid milk mfg.....	-	9	8	g	D	D	D	D	D	D	D	D
311514	Dry, condensed, & evaporated dairy product mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
31152	Ice cream & frozen dessert mfg.....	-	4	2	c	D	D	D	D	D	D	D	1 988
311520	Ice cream & frozen dessert mfg.....	-	4	2	c	D	D	D	D	D	D	D	1 988
3116	Meat product mfg.....	-	74	43	17 756	356 564	14 933	30 296	274 264	1 410 620	2 322 946	3 712 689	60 999
31161	Animal slaughtering & processing.....	-	74	43	17 756	356 564	14 933	30 296	274 264	1 410 620	2 322 946	3 712 689	60 999
311611	Animal (except poultry) slaughtering.....	-	24	7	h	D	D	D	D	D	D	D	8 988
311612	Meat processed from carcasses.....	4	25	15	2 655	57 754	2 156	4 364	42 660	213 634	362 884	576 613	9 547
311613	Rendering & meat byproduct processing.....	-	10	8	e	D	D	D	D	D	D	D	5 708
311615	Poultry processing....	-	15	13	10 162	188 255	8 834	18 136	152 856	386 006	1 134 648	1 517 754	36 756
3117	Seafood product preparation & packaging..	2	47	16	1 217	20 464	902	1 362	12 562	67 287	91 287	158 574	D
31171	Seafood product preparation & packaging.....	2	47	16	1 217	20 464	902	1 362	12 562	67 287	91 287	158 574	D
311712	Fresh & frozen seafood processing..	2	44	16	1 206	20 340	892	1 353	12 475	66 962	90 538	157 505	3 861
3118	Bakeries & tortilla mfg.....	-	185	34	5 326	153 378	3 350	6 316	92 430	861 487	347 808	1 208 108	42 165
31181	Bread & bakery product mfg.....	1	172	27	3 409	74 980	1 758	3 080	31 717	189 569	109 046	298 425	27 044
311811	Retail bakeries.....	3	120	6	f	D	D	D	D	D	D	D	D
311812	Commercial bakeries..	-	50	21	2 602	63 812	1 260	2 390	25 921	168 270	96 022	264 031	25 776
31182	Cookie, cracker, & pasta mfg.....	-	13	7	1 917	78 398	1 592	3 236	60 713	671 918	238 762	909 683	15 121
311821	Cookie & cracker mfg..	-	5	2	g	D	D	D	D	D	D	D	D
311822	Flour mixes & dough mfg from purchased flour.....	-	3	3	390	11 206	329	574	8 725	45 795	25 524	71 430	4 211
311823	Dry pasta mfg.....	-	5	2	e	D	D	D	D	D	D	D	D

Table 1. Industry Statistics for the State: 1997—Con.

[Includes data for industry groups and industries with 100 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	VIRGINIA—Con.												
31-33	Manufacturing—Con.												
311	Food mfg—Con.												
3119	Other food mfg	—	33	17	2 394	66 800	1 659	3 293	41 216	572 722	585 636	1 158 788	19 878
31191	Snack food mfg	—	8	5	903	24 293	463	972	12 364	224 275	192 246	415 547	7 625
311911	Roasted nuts & peanut butter mfg	—	5	3	e	D	D	D	D	D	D	D	D
311919	Other snack food mfg	—	3	2	f	D	D	D	D	D	D	D	D
31192	Coffee & tea mfg	—	4	3	743	23 903	630	1 169	17 588	264 977	302 861	570 034	7 902
311920	Coffee & tea mfg	—	4	3	743	23 903	630	1 169	17 588	264 977	302 861	570 034	7 902
31194	Seasoning & dressing mfg	—	10	5	c	D	D	D	D	D	D	D	D
311942	Spice & extract mfg	—	7	5	198	6 107	96	195	2 508	22 721	17 599	40 064	1 755
31199	All other food mfg	—	10	4	526	11 964	455	939	8 516	59 127	70 714	129 294	2 440
311991	Perishable prepared food mfg	—	3	3	e	D	D	D	D	D	D	D	D
311999	All other miscellaneous food mfg	—	7	1	c	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	—	72	38	13 273	683 342	7 874	15 172	367 080	8 290 995	3 628 384	11 905 760	340 722
3121	Beverage mfg	—	58	24	3 408	137 457	1 849	3 857	79 446	1 249 043	1 058 208	2 296 776	D
31211	Soft drink & ice mfg	—	35	19	1 886	50 811	770	1 418	18 652	357 946	523 095	870 312	D
312111	Soft drink mfg	—	20	15	1 666	47 203	657	1 184	16 861	348 037	515 767	853 318	D
312113	Ice mfg	1	13	3	c	D	D	D	D	D	D	D	1 001
31212	Breweries	—	14	3	g	D	D	D	D	D	D	D	52 001
312120	Breweries	—	14	3	g	D	D	D	D	D	D	D	52 001
31214	Distilleries	—	2	1	c	D	D	D	D	D	D	D	D
312140	Distilleries	—	2	1	c	D	D	D	D	D	D	D	D
3122	Tobacco mfg	—	14	14	9 865	545 885	6 025	11 315	287 634	7 041 952	2 570 176	9 608 984	D
31221	Tobacco stemming & redrying	—	7	7	g	D	D	D	D	D	D	D	D
312210	Tobacco stemming & redrying	—	7	7	g	D	D	D	D	D	D	D	D
31222	Tobacco product mfg	—	7	7	i	D	D	D	D	D	D	D	D
312221	Cigarette mfg	—	2	2	i	D	D	D	D	D	D	D	D
312229	Other tobacco product mfg	—	5	5	g	D	D	D	D	D	D	D	D
313	Textile mills	1	88	60	20 726	513 358	17 603	37 371	388 533	1 191 876	1 841 246	3 063 160	174 190
3131	Fiber, yarn, & thread mills	—	10	8	1 440	30 356	1 261	2 563	23 144	76 867	127 805	200 121	30 047
31311	Fiber, yarn, & thread mills	—	10	8	1 440	30 356	1 261	2 563	23 144	76 867	127 805	200 121	30 047
313111	Yarn spinning mills	—	4	3	470	10 902	423	981	8 628	35 131	41 020	75 558	D
313112	Yarn texturing, throwing, & twisting mills	—	6	5	970	19 454	838	1 582	14 516	41 736	86 785	124 563	D
3132	Fabric mills	2	53	40	16 916	427 852	14 195	30 244	324 508	952 015	1 434 981	2 423 809	127 275
31321	Broadwoven fabric mills	2	30	23	13 676	344 536	11 517	24 785	264 628	813 061	1 231 492	2 078 540	81 535
313210	Broadwoven fabric mills	2	30	23	13 676	344 536	11 517	24 785	264 628	813 061	1 231 492	2 078 540	81 535
31322	Narrow fabric mills & schiffli machine embroidery	—	7	5	1 160	21 882	944	1 898	16 394	25 218	21 434	48 123	2 093
313221	Narrow fabric mills	—	6	5	g	D	D	D	D	D	D	D	D
31323	Nonwoven fabric mills	—	8	6	668	23 621	495	1 032	12 783	46 955	72 984	118 803	D
313230	Nonwoven fabric mills	—	8	6	668	23 621	495	1 032	12 783	46 955	72 984	118 803	D
31324	Knit fabric mills	—	8	6	1 412	37 813	1 239	2 529	30 703	66 781	109 071	178 343	D
313249	Other knit fabric & lace mills	—	4	4	g	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	—	25	12	2 370	55 150	2 147	4 564	40 881	162 994	278 460	439 230	16 868
31331	Textile & fabric finishing mills	—	23	11	g	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills	—	17	6	1 470	36 355	1 401	3 233	28 022	118 675	224 461	340 932	D
313312	Textile & fabric finishing mills	—	6	5	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

Table 1. Industry Statistics for the State: 1997—Con.

[Includes data for industry groups and industries with 100 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
VIRGINIA—Con.													
31-33	Manufacturing—Con.												
314	Textile product mills	—	152	29	4 175	86 833	3 412	6 471	63 928	192 050	367 957	562 321	15 062
3141	Textile furnishings mills	—	81	10	2 537	52 921	2 150	4 221	42 332	133 637	272 914	408 651	10 924
31411	Carpet & rug mills	—	2	1	g	D	D	D	D	D	D	D	D
314110	Carpet & rug mills	—	2	1	g	D	D	D	D	D	D	D	D
31412	Curtain & linen mills	—	79	9	g	D	D	D	D	D	D	D	D
314121	Curtain & drapery mills	2	70	3	e	D	D	D	D	D	D	D	D
314129	Other household textile product mills	—	9	6	895	14 055	810	1 532	10 322	37 723	82 308	119 521	5 581
3149	Other textile product mills . .	1	71	19	1 638	33 912	1 262	2 250	21 596	58 413	95 043	153 670	4 138
31491	Textile bag & canvas mills	3	30	6	343	7 649	270	502	4 771	11 692	8 238	19 893	751
314911	Textile bag mills	—	4	3	130	2 590	104	198	1 646	3 889	2 069	5 903	129
314912	Canvas & related product mills	4	26	3	213	5 059	166	304	3 125	7 803	6 169	13 990	622
31499	All other textile product mills	1	41	13	1 295	26 263	992	1 748	16 825	46 721	86 805	133 777	3 387
314992	Tire cord & tire fabric mills	—	1	1	c	D	D	D	D	D	D	D	D
314999	All other miscellaneous textile product mills . .	1	38	12	g	D	D	D	D	D	D	D	D
315	Apparel mfg	1	226	127	26 203	454 208	23 060	43 129	368 034	1 114 724	1 145 291	2 236 932	33 403
3151	Apparel knitting mills	—	17	13	5 300	110 909	4 666	9 148	89 186	144 533	273 054	418 176	13 811
31511	Hosiery & sock mills	—	8	6	2 092	36 810	2 003	4 197	33 727	47 099	47 542	92 448	4 213
315111	Sheer hosiery mills	—	1	1	c	D	D	D	D	D	D	D	D
315119	Other hosiery & sock mills	—	7	5	g	D	D	D	D	D	D	D	D
31519	Other apparel knitting mills	—	9	7	3 208	74 099	2 663	4 951	55 459	97 434	225 512	325 728	9 598
315191	Outerwear knitting mills	—	8	6	h	D	D	D	D	D	D	D	D
315192	Underwear & nightwear knitting mills	—	1	1	c	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	1	164	106	20 161	332 033	17 748	32 813	270 860	950 059	857 529	1 786 007	18 600
31521	Cut & sew apparel contractors	1	82	47	6 599	92 087	5 964	10 992	77 992	230 568	43 410	276 317	5 024
315211	Men's & boys' cut & sew apparel contractors	2	19	14	2 234	32 608	2 083	3 782	29 041	51 981	25 180	79 941	1 921
315212	Women's, girls', & infants' cut & sew apparel contractors . .	1	63	33	4 365	59 479	3 881	7 210	48 951	178 587	18 230	196 376	3 103
31522	Men's & boys' cut & sew apparel mfg	—	36	28	9 331	170 402	8 485	15 492	142 228	442 531	485 892	930 075	7 444
315221	Men's & boys' cut & sew underwear & nightwear mfg	9	6	3	519	10 952	487	1 088	9 461	35 100	31 196	66 460	1 220
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	—	19	17	6 594	128 600	6 155	11 232	110 293	280 955	307 175	590 802	3 523
315224	Men's & boys' cut & sew trouser, slack, & jean mfg	—	3	3	g	D	D	D	D	D	D	D	D
315228	Men's & boys' cut & sew other outerwear mfg	—	7	4	f	D	D	D	D	D	D	D	352
31523	Women's & girls' cut & sew apparel mfg	1	35	25	2 993	49 146	2 219	4 465	36 655	193 725	258 361	426 519	D
315232	Women's & girls' cut & sew blouse & shirt mfg	—	9	5	379	5 548	330	661	4 353	19 074	19 768	38 418	422
315233	Women's & girls' cut & sew dress mfg	1	8	7	f	D	D	D	D	D	D	D	D
315239	Women's & girls' cut & sew other outerwear mfg	2	16	12	1 681	29 036	1 344	2 700	21 349	91 774	155 049	249 337	2 901
31529	Other cut & sew apparel mfg	—	11	6	1 238	20 398	1 080	1 864	13 985	83 235	69 866	153 096	D
315291	Infants' cut & sew apparel mfg	—	3	3	g	D	D	D	D	D	D	D	D
315299	All other cut & sew apparel mfg	—	7	3	c	D	D	D	D	D	D	D	D
3159	Apparel accessories & other apparel mfg	4	45	8	742	11 266	646	1 168	7 988	20 132	14 708	32 749	992
31599	Apparel accessories & other apparel mfg	4	45	8	742	11 266	646	1 168	7 988	20 132	14 708	32 749	992
315991	Hat, cap, & millinery mfg	5	10	5	e	D	D	D	D	D	D	D	D
315992	Glove & mitten mfg	—	3	2	c	D	D	D	D	D	D	D	D
315999	Other apparel accessories & other apparel mfg	5	32	1	126	2 264	105	166	1 467	10 198	6 240	14 260	512

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[Includes data for industry groups and industries with 100 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	VIRGINIA—Con.												
31-33	Manufacturing—Con.												
316	Leather & allied product mfg .	4	19	6	709	9 195	583	1 034	6 347	15 006	14 924	32 731	763
3162	Footwear mfg	6	5	4	530	5 991	456	809	4 707	6 729	8 117	15 608	649
31621	Footwear mfg	6	5	4	530	5 991	456	809	4 707	6 729	8 117	15 608	649
316213	Men's footwear (except athletic) mfg .	—	2	2	c	D	D	D	D	D	D	D	D
316214	Women's footwear (except athletic) mfg .	9	3	2	e	D	D	D	D	D	D	D	D
3169	Other leather & allied product mfg	3	12	2	c	D	D	D	D	D	D	D	D
31699	Other leather & allied product mfg	3	12	2	c	D	D	D	D	D	D	D	D
316991	Luggage mfg	—	3	1	c	D	D	D	D	D	D	D	D
321	Wood product mfg	1	582	226	19 612	470 535	15 995	32 479	335 838	1 117 087	1 670 030	2 774 487	133 805
3211	Sawmills & wood preservation	2	259	89	5 343	131 336	4 591	9 329	95 993	349 748	626 532	965 444	51 044
32111	Sawmills & wood preservation	2	259	89	5 343	131 336	4 591	9 329	95 993	349 748	626 532	965 444	51 044
321113	Sawmills	1	240	78	4 497	106 635	3 884	7 861	83 098	276 983	389 898	665 173	44 844
321114	Wood preservation	3	19	11	846	24 701	707	1 468	12 895	72 765	236 634	300 271	6 200
3212	Veneer, plywood, & engineered wood product mfg	—	63	40	4 285	116 944	3 465	7 201	84 535	286 779	450 519	735 736	52 123
32121	Veneer, plywood, & engineered wood product mfg	—	63	40	4 285	116 944	3 465	7 201	84 535	286 779	450 519	735 736	52 123
321211	Hardwood veneer & plywood veneer	—	19	13	1 500	34 591	1 269	2 444	25 347	86 615	177 047	262 182	4 749
321212	Softwood veneer & plywood mfg	—	3	2	e	D	D	D	D	D	D	D	D
321214	Truss mfg	1	29	15	g	D	D	D	D	D	D	D	D
321219	Reconstituted wood product mfg	—	12	10	1 341	42 693	1 108	2 459	33 210	113 035	156 642	268 839	42 777
3219	Other wood product mfg	1	260	97	9 984	222 255	7 939	15 949	155 310	480 560	592 979	1 073 307	30 638
32191	Millwork	1	128	51	5 708	135 182	4 526	9 689	96 547	288 618	364 423	653 232	18 503
321911	Wood window & door mfg	—	37	19	2 786	69 896	2 085	4 970	48 235	127 200	155 567	284 764	7 473
321912	Cut stock, resawing lumber, & planing	1	48	14	1 428	29 686	1 257	2 403	24 008	80 467	97 880	176 899	5 312
321918	Other millwork (including flooring)	4	43	18	1 494	35 600	1 184	2 316	24 304	80 951	110 976	191 569	5 718
32192	Wood container & pallet mfg	2	60	22	1 491	26 794	1 273	2 215	19 332	52 812	69 446	121 404	4 346
321920	Wood container & pallet mfg	2	60	22	1 491	26 794	1 273	2 215	19 332	52 812	69 446	121 404	4 346
32199	All other wood product mfg	1	72	24	2 785	60 279	2 140	4 045	39 431	139 130	159 110	298 671	7 789
321991	Manufactured home (mobile home) mfg	—	3	3	793	19 369	668	1 352	13 211	49 478	56 015	104 786	D
321992	Prefabricated wood building mfg	1	24	11	1 384	29 161	955	1 652	17 278	56 058	70 921	127 427	2 934
321999	All other miscellaneous wood product mfg	2	45	10	608	11 749	517	1 041	8 942	33 594	32 174	66 458	D
322	Paper mfg	—	105	80	15 670	636 939	11 839	25 873	427 880	1 887 984	2 345 907	4 212 214	352 903
3221	Pulp, paper, & paperboard mills	—	12	12	6 695	344 013	4 960	11 175	237 175	1 144 225	1 240 344	2 377 500	D
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	e	D	D	D	D	D	D	D	D
32213	Paperboard mills	—	9	9	h	D	D	D	D	D	D	D	200 589
322130	Paperboard mills	—	9	9	h	D	D	D	D	D	D	D	200 589
3222	Converted paper product mfg	—	93	68	8 975	292 926	6 879	14 698	190 705	743 759	1 105 563	1 834 714	D
32221	Paperboard container mfg	—	57	45	5 313	187 967	3 977	8 659	122 575	442 610	669 930	1 110 747	46 515
322211	Corrugated & solid fiber box mfg	—	33	27	2 716	92 799	1 966	4 224	57 755	218 289	332 436	550 761	20 163
322212	Folding paperboard box mfg	1	13	11	2 197	83 439	1 714	3 821	57 083	188 566	278 593	465 527	24 954
322213	Setup paperboard box mfg	—	3	3	c	D	D	D	D	D	D	D	D
322214	Fiber can, tube, drum, & similar products mfg	—	8	4	e	D	D	D	D	D	D	D	D
32222	Paper bag & coated & treated paper mfg	—	14	10	1 628	57 734	1 242	2 847	37 624	172 765	293 127	458 261	8 324
322221	Coated & laminated packaging paper & plastics film mfg	—	1	1	c	D	D	D	D	D	D	D	D
322222	Coated & laminated paper mfg	—	7	4	504	16 067	312	725	7 320	77 441	125 332	197 787	3 786
322224	Uncoated paper & multiwall bag mfg	2	3	2	359	9 883	326	821	8 670	20 993	40 494	62 566	832
322225	Laminated aluminum foil mfg for flexible packaging uses	—	1	1	e	D	D	D	D	D	D	D	D

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		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)					Wages (\$1,000)
	VIRGINIA—Con.												
31-33	Manufacturing—Con.												
322	Paper mfg—Con.												
3222	Converted paper product mfg—Con.												
32222	Paper bag & coated & treated paper mfg—Con.												
322226	Surface-coated paperboard mfg	-	2	2	c	D	D	D	D	D	D	D	
32223	Stationery product mfg ..	-	15	8	1 490	34 567	1 227	2 240	20 852	98 918	95 512	189 248	5 760
322232	Envelope mfg	-	6	4	547	16 630	407	882	9 797	38 495	28 701	66 943	3 394
322233	Stationery, tablet, & related product mfg ..	-	4	3	f	D	D	D	D	D	D	D	D
32229	Other converted paper product mfg	-	7	5	544	12 658	433	952	9 654	29 466	46 994	76 458	D
322299	All other converted paper product mfg ...	-	7	5	544	12 658	433	952	9 654	29 466	46 994	76 458	D
323	Printing & related support activities.....	1	888	164	20 741	634 294	15 226	28 860	433 394	1 391 935	1 073 799	2 462 743	205 569
3231	Printing & related support activities.....	1	888	164	20 741	634 294	15 226	28 860	433 394	1 391 935	1 073 799	2 462 743	205 569
32311	Printing	1	813	152	19 947	613 400	14 614	27 627	419 552	1 352 832	1 066 043	2 415 788	203 084
323110	Commercial lithographic printing ..	2	409	87	10 778	347 981	7 628	14 577	232 512	679 169	537 686	1 216 046	148 816
323111	Commercial gravure printing	-	14	9	1 915	66 112	1 607	2 727	53 655	164 341	185 170	347 657	27 247
323112	Commercial flexographic printing ..	1	15	7	395	11 634	288	627	7 144	20 774	25 870	46 386	3 547
323113	Commercial screen printing	4	63	8	736	14 342	553	1 077	9 272	25 842	33 107	59 121	1 696
323114	Quick printing	2	195	11	1 340	31 418	947	1 560	19 586	65 728	35 453	101 311	4 415
323116	Manifold business form printing	-	23	12	1 349	41 201	909	1 730	27 359	156 222	79 942	235 639	8 764
323117	Book printing.....	-	13	9	2 708	82 506	2 181	4 390	59 177	203 811	142 282	345 997	6 720
323118	Blankbook, looseleaf binder, & device mfg ..	-	4	3	183	3 989	127	271	2 330	8 731	6 034	14 805	360
323119	Other commercial printing.....	4	66	5	468	11 768	322	571	7 059	21 281	18 868	40 283	1 277
32312	Support activities for printing	2	75	12	794	20 894	612	1 233	13 842	39 103	7 756	46 955	2 485
323121	Tradebinding & related work	2	19	5	359	7 892	278	546	4 824	14 425	2 982	17 437	910
323122	Prepress services	2	56	7	435	13 002	334	687	9 018	24 678	4 774	29 518	1 575
324	Petroleum & coal products mfg	-	20	5	605	25 953	335	727	13 308	126 100	436 998	560 125	13 411
3241	Petroleum & coal products mfg	-	20	5	605	25 953	335	727	13 308	126 100	436 998	560 125	13 411
32411	Petroleum refineries	-	2	2	e	D	D	D	D	D	D	D	D
324110	Petroleum refineries ..	-	2	2	e	D	D	D	D	D	D	D	D
32412	Asphalt paving, roofing, & saturated materials mfg	2	14	2	205	6 116	94	165	2 486	13 607	21 083	34 276	D
324121	Asphalt paving mixture & block mfg	2	12	1	c	D	D	D	D	D	D	D	2 961
32419	Other petroleum & coal products mfg	-	4	1	c	D	D	D	D	D	D	D	D
324191	Petroleum lubricating oil & grease mfg	-	3	1	c	D	D	D	D	D	D	D	D
325	Chemical mfg	-	185	77	20 271	879 208	14 128	30 070	540 214	5 378 726	3 761 258	9 081 361	408 042
3251	Basic chemical mfg	-	34	11	3 675	183 062	2 844	5 714	128 853	830 896	488 304	1 302 058	68 806
32512	Industrial gas mfg	2	17	3	127	4 919	60	129	2 206	35 394	17 438	52 805	D
325120	Industrial gas mfg	2	17	3	127	4 919	60	129	2 206	35 394	17 438	52 805	D
32513	Dye & pigment mfg	-	2	2	c	D	D	D	D	D	D	D	D
325131	Inorganic dye & pigment mfg	-	1	1	c	D	D	D	D	D	D	D	D
32518	Other basic inorganic chemical mfg	-	9	3	1 821	91 694	1 448	2 782	71 226	349 095	48 657	397 746	8 144
325188	All other basic inorganic chemical mfg	-	9	3	1 821	91 694	1 448	2 782	71 226	349 095	48 657	397 746	8 144
32519	Other basic organic chemical mfg	-	5	3	1 545	79 738	1 228	2 569	52 147	428 506	401 717	812 870	51 106
325199	All other basic organic chemical mfg	-	5	3	1 545	79 738	1 228	2 569	52 147	428 506	401 717	812 870	51 106

Table 1. Industry Statistics for the State: 1997—Con.

[Includes data for industry groups and industries with 100 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	VIRGINIA—Con.												
	Manufacturing—Con.												
325	Chemical mfg—Con.												
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	—	16	12	8 705	385 445	6 214	14 344	251 626	1 512 391	1 115 439	2 603 197	128 165
32521	Resin & synthetic rubber mfg	—	7	3	261	11 571	159	371	7 350	5 681	210 171	214 896	8 136
325211	Plastics material & resin mfg	—	5	2	c	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg . .	—	9	9	8 444	373 874	6 055	13 973	244 276	1 506 710	905 268	2 388 301	120 029
325221	Cellulosic organic fiber mfg	—	1	1	g	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg	—	8	8	i	D	D	D	D	D	D	D	D
3253	Pesticide, fertilizer, & other agricultural chemical mfg .	2	24	7	407	11 623	274	505	6 705	58 237	73 132	129 066	2 898
32531	Fertilizer mfg	1	20	4	293	7 958	215	387	5 237	37 443	55 388	91 424	2 133
325314	Fertilizer (mixing only) mfg	—	14	3	192	5 007	139	253	3 275	23 982	36 885	59 189	678
32532	Pesticide & other agricultural chemical mfg	5	4	3	114	3 665	59	118	1 468	20 794	17 744	37 642	765
325320	Pesticide & other agricultural chemical mfg	5	4	3	114	3 665	59	118	1 468	20 794	17 744	37 642	765
3254	Pharmaceutical & medicine mfg	—	16	10	2 677	130 244	1 332	3 039	48 478	1 813 571	1 294 543	3 105 264	171 259
32541	Pharmaceutical & medicine mfg	—	16	10	2 677	130 244	1 332	3 039	48 478	1 813 571	1 294 543	3 105 264	171 259
325411	Medicinal & botanical mfg	—	4	2	f	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	—	8	4	g	D	D	D	D	D	D	D	D
325413	In-vitro diagnostic substance mfg	—	3	3	e	D	D	D	D	D	D	D	3 526
3255	Paint, coating, & adhesive mfg	—	24	11	950	40 753	635	1 270	23 384	257 382	322 018	569 088	12 650
32551	Paint & coating mfg	—	17	8	823	35 683	540	1 089	20 736	234 643	279 576	507 807	7 151
325510	Paint & coating mfg	—	17	8	823	35 683	540	1 089	20 736	234 643	279 576	507 807	7 151
32552	Adhesive mfg	—	7	3	127	5 070	95	181	2 648	22 739	42 442	61 281	5 499
325520	Adhesive mfg	—	7	3	127	5 070	95	181	2 648	22 739	42 442	61 281	5 499
3256	Soap, cleaning compound, & toilet preparation mfg . .	—	22	6	1 542	41 330	1 074	2 003	22 194	692 610	286 747	978 693	9 176
32561	Soap & cleaning compound mfg	1	16	3	e	D	D	D	D	D	D	D	2 832
325612	Polish & other sanitation good mfg . .	3	9	2	129	3 853	71	154	1 668	10 304	11 045	21 260	644
325613	Surface active agent mfg	—	3	1	c	D	D	D	D	D	D	D	1 799
32562	Toilet preparation mfg	—	6	3	g	D	D	D	D	D	D	D	6 344
325620	Toilet preparation mfg	—	6	3	g	D	D	D	D	D	D	D	6 344
3259	Other chemical product mfg	1	49	20	2 315	86 751	1 755	3 195	58 974	213 639	181 075	393 995	15 088
32591	Printing ink mfg	3	18	10	432	19 291	242	496	9 555	50 469	107 607	157 829	1 566
325910	Printing ink mfg	3	18	10	432	19 291	242	496	9 555	50 469	107 607	157 829	1 566
32592	Explosives mfg	—	2	1	g	D	D	D	D	D	D	D	D
325920	Explosives mfg	—	2	1	g	D	D	D	D	D	D	D	D
32599	All other chemical product & preparation mfg	1	29	9	f	D	D	D	D	D	D	D	13 522
325991	Custom compounding of purchased resin . .	1	10	4	301	8 306	224	476	5 211	20 737	17 734	38 663	2 182
325998	All other miscellaneous chemical product & preparation mfg	—	8	3	242	10 055	160	298	5 126	31 996	43 919	75 115	D
326	Plastics & rubber products mfg	—	197	117	21 899	683 707	17 365	34 208	474 703	2 464 944	1 958 190	4 393 313	196 871
3261	Plastics product mfg	—	156	98	15 642	445 878	12 341	24 465	297 992	1 703 123	1 447 231	3 118 466	159 820
32611	Unsupported plastics film, sheet, & bag mfg . .	—	27	18	4 090	144 641	3 112	6 448	93 056	685 334	498 059	1 168 930	72 601
326111	Unsupported plastics bag mfg	2	7	5	g	D	D	D	D	D	D	D	D
326112	Unsupported plastics packaging film & sheet mfg	1	3	1	c	D	D	D	D	D	D	D	D
326113	Unsupported plastics film & sheet (except packaging) mfg	—	17	12	2 754	106 050	1 949	3 810	61 246	508 146	349 515	844 668	54 885
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg	1	11	6	619	14 902	482	935	9 128	56 002	44 142	98 043	3 516
326121	Unsupported plastics profile shape mfg	2	6	3	310	7 400	249	497	4 439	32 575	18 031	50 596	1 964
326122	Plastics pipe & pipe fitting mfg	—	5	3	309	7 502	233	438	4 689	23 427	26 111	47 447	1 552

Table 1. Industry Statistics for the State: 1997—Con.

[Includes data for industry groups and industries with 100 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
VIRGINIA—Con.													
31-33	Manufacturing—Con.												
326	Plastics & rubber products mfg—Con.												
3261	Plastics product mfg—Con.												
32614	Polystyrene foam product mfg.....	-	13	8	525	14 156	415	833	9 388	62 810	41 287	102 165	2 435
326140	Polystyrene foam product mfg.....	-	13	8	525	14 156	415	833	9 388	62 810	41 287	102 165	2 435
32615	Urethane & other foam product (except polystyrene) mfg.....	-	4	3	521	13 272	420	603	10 809	57 867	59 882	113 965	D
326150	Urethane & other foam product (except polystyrene) mfg.....	-	4	3	521	13 272	420	603	10 809	57 867	59 882	113 965	D
32616	Plastics bottle mfg.....	2	7	6	804	22 490	734	1 575	18 301	87 996	83 045	169 623	19 209
326160	Plastics bottle mfg.....	2	7	6	804	22 490	734	1 575	18 301	87 996	83 045	169 623	19 209
32619	Other plastics product mfg.....	-	91	57	9 067	235 830	7 166	14 044	156 857	751 459	719 603	1 462 865	60 523
326191	Plastics plumbing fixture mfg.....	1	9	7	835	17 447	742	1 554	13 933	36 218	37 047	73 422	1 819
326199	All other plastics product mfg.....	-	82	50	8 232	218 383	6 424	12 490	142 924	715 241	682 556	1 389 443	58 704
3262	Rubber product mfg.....	-	41	19	6 257	237 829	5 024	9 743	176 711	761 821	510 959	1 274 847	37 051
32621	Tire mfg.....	-	21	5	h	D	D	D	D	D	D	D	22 608
326211	Tire mfg (except retreading).....	-	8	3	h	D	D	D	D	D	D	D	D
326212	Tire retreading.....	-	13	2	c	D	D	D	D	D	D	D	D
32629	Other rubber product mfg.....	-	20	14	h	D	D	D	D	D	D	D	14 443
326291	Rubber product mfg for mechanical use.....	1	8	6	g	D	D	D	D	D	D	D	3 745
326299	All other rubber product mfg.....	-	12	8	1 948	53 753	1 493	3 083	35 164	192 398	102 026	294 300	10 698
327	Nonmetallic mineral product mfg.....	1	350	132	12 114	341 601	9 304	18 979	233 090	944 602	779 270	1 727 436	85 245
3271	Clay product & refractory mfg.....	2	31	12	1 160	29 239	805	1 603	17 275	76 210	61 982	140 150	8 172
32711	Pottery, ceramics, & plumbing fixture mfg...	-	18	2	315	6 081	150	281	2 562	16 882	15 983	32 907	890
327112	Vitreous china, fine earthenware, & other pottery product mfg..	-	18	2	315	6 081	150	281	2 562	16 882	15 983	32 907	890
32712	Clay building material & refractories mfg.....	3	13	10	845	23 158	655	1 322	14 713	59 328	45 999	107 243	7 282
327121	Brick & structural clay tile mfg.....	-	7	7	659	15 492	546	1 110	11 071	37 817	15 834	55 387	4 014
327125	Nonclay refractory mfg.....	8	2	1	c	D	D	D	D	D	D	D	D
3272	Glass & glass product mfg.	-	44	17	2 873	74 366	2 349	4 703	53 051	203 739	165 751	372 475	15 682
32721	Glass & glass product mfg.....	-	44	17	2 873	74 366	2 349	4 703	53 051	203 739	165 751	372 475	15 682
327212	Other pressed & blown glass & glassware mfg.....	-	8	1	e	D	D	D	D	D	D	D	D
327213	Glass container mfg..	-	2	2	e	D	D	D	D	D	D	D	D
327215	Glass product mfg made of purchased glass.....	-	34	14	g	D	D	D	D	D	D	D	D
3273	Cement & concrete product mfg.....	1	239	88	6 251	179 238	4 778	9 881	122 599	494 961	419 255	912 730	39 102
32731	Cement mfg.....	-	6	3	302	11 927	176	417	6 431	51 493	56 280	107 107	4 566
327310	Cement mfg.....	-	6	3	302	11 927	176	417	6 431	51 493	56 280	107 107	4 566
32732	Ready-mix concrete mfg.	1	125	40	2 310	68 015	1 858	3 934	51 716	193 984	207 871	402 342	22 128
327320	Ready-mix concrete mfg.....	1	125	40	2 310	68 015	1 858	3 934	51 716	193 984	207 871	402 342	22 128
32733	Concrete pipe, brick, & block mfg.....	1	49	24	1 602	45 824	1 182	2 334	28 016	117 419	81 611	197 534	6 641
327331	Concrete block & brick mfg.....	2	31	9	533	13 722	329	639	7 438	46 279	40 202	85 186	2 564
327332	Concrete pipe mfg.....	1	18	15	1 069	32 102	853	1 695	20 578	71 140	41 409	112 348	4 077
32739	Other concrete product mfg.....	2	59	21	2 037	53 472	1 562	3 196	36 436	132 065	73 493	205 747	5 767
327390	Other concrete product mfg.....	2	59	21	2 037	53 472	1 562	3 196	36 436	132 065	73 493	205 747	5 767
3274	Lime & gypsum product mfg.....	-	8	6	731	23 829	579	1 220	17 714	72 783	54 943	127 442	7 188
32741	Lime mfg.....	-	3	3	e	D	D	D	D	D	D	D	D
327410	Lime mfg.....	-	3	3	e	D	D	D	D	D	D	D	D
32742	Gypsum product mfg....	-	5	3	e	D	D	D	D	D	D	D	D
327420	Gypsum product mfg..	-	5	3	e	D	D	D	D	D	D	D	D

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	VIRGINIA—Con.												
31-33	Manufacturing—Con.												
327	Nonmetallic mineral product mfg—Con.												
3279	Other nonmetallic mineral product mfg.....	1	28	9	1 099	34 929	793	1 572	22 451	96 909	77 339	174 639	15 101
32791	Abrasive product mfg . . .	—	2	2	e	D	D	D	D	D	D	D	D
327910	Abrasive product mfg . . .	—	2	2	e	D	D	D	D	D	D	D	D
32799	All other nonmetallic mineral product mfg . . .	1	26	7	f	D	D	D	D	D	D	D	D
327991	Cut stone & stone product mfg	1	8	1	126	2 751	108	174	1 931	3 827	3 705	7 767	D
327993	Mineral wool mfg	—	3	1	c	D	D	D	D	D	D	D	D
327999	All other miscellaneous nonmetallic mineral product mfg	1	11	4	408	14 864	305	659	10 530	40 673	27 957	70 149	10 601
331	Primary metal mfg	—	49	31	7 342	251 983	6 086	12 696	191 219	665 539	1 139 600	1 803 693	69 477
3311	Iron & steel mills & ferroalloy mfg	—	4	2	f	D	D	D	D	D	D	D	D
33111	Iron & steel mills & ferroalloy mfg	—	4	2	f	D	D	D	D	D	D	D	D
331111	Iron & steel mills	—	4	2	f	D	D	D	D	D	D	D	D
3312	Steel product mfg from purchased steel	—	6	5	e	D	D	D	D	D	D	D	D
33122	Rolling & drawing of purchased steel	—	4	4	e	D	D	D	D	D	D	D	D
331222	Steel wire drawing	—	3	3	185	4 876	162	364	3 793	9 327	23 798	33 224	D
3313	Alumina & aluminum production & processing	—	7	6	1 923	67 760	1 650	3 691	54 603	211 595	558 770	776 745	16 486
33131	Alumina & aluminum production & processing	—	7	6	1 923	67 760	1 650	3 691	54 603	211 595	558 770	776 745	16 486
331314	Secondary smelting & alloying of aluminum	—	1	1	c	D	D	D	D	D	D	D	D
331315	Aluminum sheet, plate, & foil mfg	—	3	2	f	D	D	D	D	D	D	D	D
331316	Aluminum extruded product mfg	—	3	3	978	29 671	865	1 947	24 296	55 578	116 309	175 030	8 406
3314	Nonferrous metal (except aluminum) production & processing	—	9	4	433	15 075	324	690	7 658	45 672	91 712	135 086	4 786
33142	Copper rolling, drawing, extruding, & alloying	—	3	1	e	D	D	D	D	D	D	D	830
331421	Copper rolling, drawing, & extruding	—	1	1	c	D	D	D	D	D	D	D	D
33149	Other nonferrous metal rolling, drawing, extruding, & alloying	—	6	3	c	D	D	D	D	D	D	D	3 956
331491	Other nonferrous metal rolling, drawing, & extruding	—	5	3	c	D	D	D	D	D	D	D	D
3315	Foundries	—	23	14	4 105	131 147	3 378	6 667	97 384	294 676	288 501	577 033	D
33151	Ferrous metal foundries	—	13	10	2 528	85 364	2 106	4 375	65 298	154 681	189 903	345 218	9 046
331511	Iron foundries	—	11	9	g	D	D	D	D	D	D	D	D
33152	Nonferrous metal foundries	—	10	4	1 577	45 783	1 272	2 292	32 086	139 995	98 598	231 815	D
331525	Copper foundries (except die-casting)	—	5	1	c	D	D	D	D	D	D	D	76
331528	Other nonferrous foundries (except die-casting)	—	2	1	g	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	—	768	219	20 631	649 623	15 453	30 177	415 432	1 624 459	1 484 830	3 083 347	98 400
3321	Forging & stamping	—	29	14	1 407	50 127	886	1 736	24 080	127 454	101 389	217 036	7 824
33211	Forging & stamping	—	29	14	1 407	50 127	886	1 736	24 080	127 454	101 389	217 036	7 824
332112	Nonferrous forging	—	2	2	e	D	D	D	D	D	D	D	D
332114	Custom roll forming	—	10	6	337	10 045	188	415	5 176	21 395	30 237	51 337	868
332116	Metal stamping	1	14	5	375	11 756	290	568	7 120	23 839	27 688	51 663	490
332117	Powder metallurgy part mfg	—	1	1	e	D	D	D	D	D	D	D	D
3322	Cutlery & handtool mfg	—	17	7	1 361	43 543	1 070	2 013	27 313	145 767	84 761	229 608	8 640
33221	Cutlery & handtool mfg	—	17	7	1 361	43 543	1 070	2 013	27 313	145 767	84 761	229 608	8 640
332211	Cutlery & flatware (except precious) mfg	—	1	1	f	D	D	D	D	D	D	D	D
332212	Hand & edge tool mfg	1	13	5	e	D	D	D	D	D	D	D	D
332214	Kitchen utensil, pot, & pan mfg	—	1	1	c	D	D	D	D	D	D	D	D

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	VIRGINIA—Con.												
31-33	Manufacturing—Con.												
332	Fabricated metal product mfg—Con.												
3323	Architectural & structural metals mfg	1	203	89	6 021	178 166	4 465	8 629	111 953	381 221	466 375	842 257	24 131
33231	Plate work & fabricated structural product mfg ..	1	95	48	3 471	104 733	2 586	5 103	66 250	217 235	309 859	523 960	11 330
332311	Prefabricated metal building & component mfg	—	7	3	379	9 599	333	685	7 799	16 695	15 317	27 877	1 595
332312	Fabricated structural metal mfg	1	71	36	2 389	73 693	1 711	3 354	44 971	167 343	268 142	436 896	6 380
332313	Plate work mfg	—	17	9	703	21 441	542	1 064	13 480	33 197	26 400	59 187	3 355
33232	Ornamental & architectural metal products mfg	1	108	41	2 550	73 433	1 879	3 526	45 703	163 986	156 516	318 297	12 801
332321	Metal window & door mfg	—	16	5	644	18 347	478	1 028	12 223	55 941	67 196	122 458	995
332322	Sheet metal work mfg	—	68	32	1 607	45 989	1 203	2 105	28 083	90 608	79 164	168 268	10 931
332323	Ornamental & architectural metal work mfg	5	24	4	299	9 097	198	393	5 397	17 437	10 156	27 571	875
3324	Boiler, tank, & shipping container mfg	—	18	14	1 590	65 717	1 262	2 311	48 684	194 538	402 224	590 801	10 911
33241	Power boiler & heat exchanger mfg	—	3	3	251	11 886	117	192	4 069	16 127	43 914	61 538	D
332410	Power boiler & heat exchanger mfg	—	3	3	251	11 886	117	192	4 069	16 127	43 914	61 538	D
33242	Metal tank (heavy gauge) mfg	—	8	6	391	11 220	312	597	8 382	25 752	21 874	49 008	D
332420	Metal tank (heavy gauge) mfg	—	8	6	391	11 220	312	597	8 382	25 752	21 874	49 008	D
33243	Metal can, box, & other metal container (light gauge) mfg	—	7	5	948	42 611	833	1 522	36 233	152 659	336 436	480 255	6 241
332431	Metal can mfg	—	5	4	f	D	D	D	D	D	D	D	D
3325	Hardware mfg	—	8	7	1 019	32 274	727	1 546	19 775	86 114	41 238	125 972	3 331
33251	Hardware mfg	—	8	7	1 019	32 274	727	1 546	19 775	86 114	41 238	125 972	3 331
332510	Hardware mfg	—	8	7	1 019	32 274	727	1 546	19 775	86 114	41 238	125 972	3 331
3326	Spring & wire product mfg .	—	9	3	577	11 363	480	875	6 357	32 528	24 952	54 305	2 439
33261	Spring & wire product mfg	—	9	3	577	11 363	480	875	6 357	32 528	24 952	54 305	2 439
332618	Other fabricated wire product mfg	—	8	3	f	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	370	57	5 000	150 196	3 920	7 160	104 526	311 759	139 906	450 423	22 424
33271	Machine shops	2	348	44	3 809	120 178	2 995	5 415	82 094	209 634	78 902	287 949	15 336
332710	Machine shops	2	348	44	3 809	120 178	2 995	5 415	82 094	209 634	78 902	287 949	15 336
33272	Turned product & screw, nut, & bolt mfg	—	22	13	1 191	30 018	925	1 745	22 432	102 125	61 004	162 474	7 088
332721	Precision turned product mfg	—	14	7	356	8 393	234	471	5 373	15 890	7 011	23 227	1 037
332722	Bolt, nut, screw, rivet, & washer mfg	—	8	6	835	21 625	691	1 274	17 059	86 235	53 993	139 247	6 051
3328	Coating, engraving, heat treating, & allied activities .	1	55	9	726	20 075	547	1 072	12 256	40 190	13 972	53 815	3 432
33281	Coating, engraving, heat treating, & allied activities	1	55	9	726	20 075	547	1 072	12 256	40 190	13 972	53 815	3 432
332812	Metal coating/engraving (exc jewelry/silverware)/ allied services	1	18	4	193	4 292	153	316	2 970	8 646	4 965	13 661	D
332813	Electroplating, plating, polishing, anodizing, & coloring	1	31	4	487	14 500	360	673	8 413	29 317	6 143	35 064	2 850
3329	Other fabricated metal product mfg	—	59	19	2 930	98 162	2 096	4 835	60 488	304 888	210 013	519 130	15 268
33291	Metal valve mfg	—	7	5	1 115	39 750	758	1 671	23 671	111 096	81 518	197 403	5 734
332911	Industrial valve mfg ...	—	2	2	f	D	D	D	D	D	D	D	D
332913	Plumbing fixture fitting & trim mfg	—	2	2	c	D	D	D	D	D	D	D	D
332919	Other metal valve & pipe fitting mfg	—	2	1	e	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg	—	52	14	1 815	58 412	1 338	3 164	36 817	193 792	128 495	321 727	9 534
332991	Ball & roller bearing mfg	—	2	2	f	D	D	D	D	D	D	D	D
332996	Fabricated pipe & pipe fitting mfg	—	5	2	e	D	D	D	D	D	D	D	D
332999	All other miscellaneous fabricated metal product mfg	3	33	9	735	23 071	513	1 050	13 593	33 796	19 399	52 493	3 290

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[Includes data for industry groups and industries with 100 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	VIRGINIA—Con. Manufacturing— Con.												
333	Machinery mfg	-	348	141	21 343	712 234	14 892	30 996	409 707	1 622 092	2 115 850	3 805 337	122 359
3331	Agriculture, construction, & mining machinery mfg.	1	47	19	3 219	98 867	2 106	4 154	53 457	255 474	529 653	803 588	17 373
33311	Agricultural implement mfg	-	12	5	1 068	34 156	749	1 292	19 949	128 411	274 109	405 763	10 282
333111	Farm machinery & equipment mfg.	5	10	4	e	D	D	D	D	D	D	D	D
333112	Lawn & garden tractor & home lawn & garden equipment mfg	-	2	1	f	D	D	D	D	D	D	D	D
33312	Construction machinery mfg	-	7	2	446	14 164	265	609	6 687	41 106	41 808	85 104	1 235
333120	Construction machinery mfg	-	7	2	446	14 164	265	609	6 687	41 106	41 808	85 104	1 235
33313	Mining & oil & gas field machinery mfg	1	28	12	1 705	50 547	1 092	2 253	26 821	85 957	213 736	312 721	5 856
333131	Mining machinery & equipment mfg	2	26	11	g	D	D	D	D	D	D	D	D
333132	Oil & gas field machinery & equipment mfg	-	2	1	e	D	D	D	D	D	D	D	D
3332	Industrial machinery mfg ..	-	72	30	2 938	109 268	1 889	4 079	61 523	271 794	235 544	512 051	16 446
33322	Plastics & rubber industry machinery mfg	-	9	5	862	27 856	547	1 310	18 143	68 569	40 996	110 393	3 960
333220	Plastics & rubber industry machinery mfg	-	9	5	862	27 856	547	1 310	18 143	68 569	40 996	110 393	3 960
33329	Other industrial machinery mfg	-	57	25	2 049	80 725	1 322	2 729	42 916	201 822	193 648	399 241	12 449
333293	Printing machinery & equipment mfg	-	10	3	463	20 363	333	713	13 220	38 775	31 424	75 969	3 600
333294	Food product machinery mfg	1	11	6	380	13 714	247	506	7 037	24 103	32 828	55 077	2 110
333295	Semiconductor machinery mfg	-	1	1	c	D	D	D	D	D	D	D	D
333298	All other industrial machinery mfg	-	24	13	886	33 961	564	1 144	17 311	107 175	110 119	219 459	4 632
3333	Commercial & service industry machinery mfg ..	-	42	17	2 190	83 529	1 553	3 237	46 285	137 827	236 466	380 592	30 470
33331	Commercial & service industry machinery mfg	-	42	17	2 190	83 529	1 553	3 237	46 285	137 827	236 466	380 592	30 470
333313	Office machinery mfg ..	2	3	3	c	D	D	D	D	D	D	D	692
333314	Optical instrument & lens mfg	-	5	1	f	D	D	D	D	D	D	D	D
333315	Photographic & photocopying equipment mfg	-	18	5	582	26 174	424	882	12 506	39 064	121 050	158 776	D
333319	Other commercial & service industry machinery mfg	-	15	8	779	25 952	636	1 190	19 903	36 690	42 245	84 844	1 761
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	-	31	16	6 183	176 564	5 062	10 544	123 241	380 993	622 956	1 007 607	23 303
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg ..	-	31	16	6 183	176 564	5 062	10 544	123 241	380 993	622 956	1 007 607	23 303
333411	Air purification equipment mfg	1	7	3	442	9 583	302	610	5 302	22 958	30 789	52 831	D
333414	Heating equipment (except warm air furnaces) mfg	-	10	3	e	D	D	D	D	D	D	D	D
333415	AC & warm air heating & commercial/ industrial refrig equip mfg	-	13	10	5 431	157 927	4 495	9 438	111 688	338 587	569 832	904 183	19 450
3335	Metalworking machinery mfg	-	52	16	1 821	67 521	1 228	2 482	40 099	186 068	87 542	272 052	8 964
33351	Metalworking machinery mfg	-	52	16	1 821	67 521	1 228	2 482	40 099	186 068	87 542	272 052	8 964
333511	Industrial mold mfg ...	-	8	3	132	3 781	92	142	2 253	10 858	13 932	24 794	681
333512	Machine tool (metal cutting types) mfg ...	-	2	2	e	D	D	D	D	D	D	D	D
333513	Machine tool (metal forming types) mfg ...	-	1	1	e	D	D	D	D	D	D	D	D
333514	Special die & tool, die set, jig, & fixture mfg .	2	25	5	601	19 883	433	862	12 707	35 811	12 719	47 076	3 848
333515	Cutting tool & machine tool accessory mfg ..	-	10	4	401	11 336	313	640	8 556	38 691	15 430	54 467	D
3336	Engine, turbine, & power transmission equipment mfg	-	11	4	632	17 906	345	669	8 573	76 104	98 904	157 181	6 867
33361	Engine, turbine, & power transmission equipment mfg	-	11	4	632	17 906	345	669	8 573	76 104	98 904	157 181	6 867
333612	Speed changer, industrial high-speed drive, & gear mfg	-	3	3	570	15 934	295	596	7 228	73 866	95 477	150 818	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	VIRGINIA—Con.												
31-33	Manufacturing—Con.												
333	Machinery mfg—Con.												
3339	Other general-purpose machinery mfg	-	93	39	4 360	158 579	2 709	5 831	76 529	313 832	304 785	672 266	18 936
33391	Pump & compressor mfg	-	9	4	531	18 103	322	633	8 433	40 982	64 874	106 377	2 826
333911	Pump & pumping equipment mfg	-	5	1	e	D	D	D	D	D	D	D	D
333912	Air & gas compressor mfg	-	4	3	e	D	D	D	D	D	D	D	D
33392	Material handling equipment mfg	-	31	13	1 733	66 190	1 069	2 583	31 021	166 517	146 376	307 842	8 241
333921	Elevator & moving stairway mfg	-	3	1	c	D	D	D	D	D	D	D	D
333922	Conveyor & conveying equipment mfg	-	16	7	973	39 156	561	1 492	16 751	75 101	68 373	142 618	5 098
333923	Overhead traveling crane, hoist, & monorail system mfg	-	5	2	455	16 470	333	696	9 354	63 287	33 975	96 137	D
333924	Industrial truck, tractor, trailer, & stacker machinery mfg	-	7	3	c	D	D	D	D	D	D	D	372
33399	All other general-purpose machinery mfg	1	53	22	2 096	74 286	1 318	2 615	37 075	106 333	93 535	258 047	7 869
333992	Welding & soldering equipment mfg	1	3	1	c	D	D	D	D	D	D	D	213
333993	Packaging machinery mfg	-	9	8	622	24 604	383	718	11 273	1 666	23 807	84 769	2 858
333995	Fluid power cylinder & actuator mfg	-	2	1	c	D	D	D	D	D	D	D	D
333996	Fluid power pump & motor mfg	1	5	1	233	11 132	159	369	6 567	26 364	13 777	40 903	233
333997	Scale & balance (except laboratory) mfg	-	1	1	c	D	D	D	D	D	D	D	D
333999	All other miscellaneous general-purpose machinery mfg	3	31	10	840	25 916	542	1 041	13 504	49 647	41 902	89 390	4 267
334	Computer & electronic product mfg	-	268	124	29 832	1 195 088	15 627	29 368	468 359	3 223 162	3 157 760	6 381 489	590 659
3341	Computer & peripheral equipment mfg	-	35	17	5 532	165 600	2 805	5 330	73 857	367 427	1 127 659	1 493 234	56 400
33411	Computer & peripheral equipment mfg	-	35	17	5 532	165 600	2 805	5 330	73 857	367 427	1 127 659	1 493 234	56 400
334111	Electronic computer mfg	-	15	9	1 524	40 368	1 106	1 945	22 116	184 788	465 044	651 123	12 480
334119	Other computer peripheral equipment mfg	-	16	8	3 996	124 984	1 691	3 371	51 539	181 939	661 836	840 622	43 888
3342	Communications equipment mfg	-	61	27	6 918	322 004	3 250	5 241	112 024	969 453	1 268 933	2 247 309	126 203
33421	Telephone apparatus mfg	1	16	10	2 088	82 644	925	1 755	22 588	198 452	213 308	420 412	11 838
334210	Telephone apparatus mfg	1	16	10	2 088	82 644	925	1 755	22 588	198 452	213 308	420 412	11 838
33422	Radio & TV broadcasting & wireless communications equipment mfg	-	33	17	4 757	237 066	2 290	3 428	88 760	765 000	1 051 609	1 817 580	114 107
334220	Radio & TV broadcasting & wireless communications equipment mfg	-	33	17	4 757	237 066	2 290	3 428	88 760	765 000	1 051 609	1 817 580	114 107
3343	Audio & video equipment mfg	1	8	2	256	7 006	182	342	3 552	15 894	14 004	30 071	933
33431	Audio & video equipment mfg	1	8	2	256	7 006	182	342	3 552	15 894	14 004	30 071	933
334310	Audio & video equipment mfg	1	8	2	256	7 006	182	342	3 552	15 894	14 004	30 071	933
3344	Semiconductor & other electronic component mfg	-	68	36	7 589	250 434	5 546	10 823	171 146	738 159	312 386	1 041 306	357 498
33441	Semiconductor & other electronic component mfg	-	68	36	7 589	250 434	5 546	10 823	171 146	738 159	312 386	1 041 306	357 498
334412	Bare printed circuit board mfg	-	12	6	2 861	117 226	2 295	4 538	90 255	340 751	115 288	461 973	21 142
334413	Semiconductor & related device mfg ...	-	16	5	1 055	37 148	408	800	13 675	49 631	33 524	78 115	D
334414	Electronic capacitor mfg	-	2	2	e	D	D	D	D	D	D	D	D
334415	Electronic resistor mfg	-	1	1	e	D	D	D	D	D	D	D	D
334416	Electronic coil, transformer, & other inductor mfg	-	4	1	c	D	D	D	D	D	D	D	D
334417	Electronic connector mfg	-	8	5	1 252	43 351	816	1 565	31 103	194 166	86 700	274 185	D

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	VIRGINIA—Con.												
31-33	Manufacturing—Con.												
334	Computer & electronic product mfg—Con.												
3344	Semiconductor & other electronic component mfg—Con.												
33441	Semiconductor & other electronic component mfg—Con.												
334418	Printed circuit assembly (electronic assembly) mfg	-	7	6	387	9 810	312	561	5 552	15 513	21 247	37 690	D
334419	Other electronic component mfg	1	17	10	1 161	25 800	931	1 831	17 393	100 590	35 838	132 465	D
3345	Navigational, measuring, medical, & control instruments mfg	-	74	37	8 896	429 472	3 320	6 581	94 103	1 092 204	374 740	1 469 175	40 151
33451	Navigational, measuring, medical, & control instruments mfg	-	74	37	8 896	429 472	3 320	6 581	94 103	1 092 204	374 740	1 469 175	40 151
334510	Electromedical & electrotherapeutic apparatus mfg	9	4	1	c	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	18	13	6 393	350 703	2 084	4 344	63 862	919 510	247 963	1 168 380	25 380
334513	Industrial process control instrument mfg	1	15	6	396	16 193	174	353	4 948	37 166	23 534	60 698	1 313
334514	Totalizing fluid meter & counting device mfg	-	2	1	f	D	D	D	D	D	D	D	D
334515	Electricity measuring & testing instrument mfg	3	10	4	e	D	D	D	D	D	D	D	2 167
334516	Analytical laboratory instrument mfg	5	11	5	374	15 350	115	232	3 290	29 562	12 555	41 866	1 075
334518	Watch, clock, & part mfg	-	3	3	396	7 612	353	658	5 743	20 410	15 005	34 933	D
334519	Other measuring & controlling device mfg	1	11	4	346	11 838	167	319	3 758	24 205	11 373	35 818	755
3346	Mfg & reproducing magnetic & optical media	-	22	5	641	20 572	524	1 051	13 677	40 025	60 038	100 394	9 474
33461	Mfg & reproducing magnetic & optical media	-	22	5	641	20 572	524	1 051	13 677	40 025	60 038	100 394	9 474
334612	Prerecorded CD (except software), tape, & record reproducing	-	11	3	e	D	D	D	D	D	D	D	D
334613	Magnetic & optical recording media mfg	1	7	2	272	7 518	232	470	5 637	2 715	46 007	48 916	1 909
335	Electrical equipment, appliance, & component mfg	-	106	47	11 673	385 589	7 052	13 976	192 257	1 124 045	1 003 771	2 103 214	47 551
3351	Electric lighting equipment mfg	-	17	6	g	D	D	D	D	D	D	D	D
33511	Electric lamp bulb & part mfg	-	1	1	e	D	D	D	D	D	D	D	D
335110	Electric lamp bulb & part mfg	-	1	1	e	D	D	D	D	D	D	D	D
33512	Lighting fixture mfg	1	16	5	f	D	D	D	D	D	D	D	D
335129	Other lighting equipment mfg	-	5	3	f	D	D	D	D	D	D	D	D
3352	Household appliance mfg	-	2	2	f	D	D	D	D	D	D	D	D
33521	Small electrical appliance mfg	-	2	2	f	D	D	D	D	D	D	D	D
335212	Household vacuum cleaner mfg	-	1	1	f	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg	-	61	25	7 503	263 677	3 945	7 893	107 801	692 957	541 172	1 215 065	32 640
33531	Electrical equipment mfg	-	61	25	7 503	263 677	3 945	7 893	107 801	692 957	541 172	1 215 065	32 640
335311	Power, distribution, & specialty transformer mfg	-	12	6	1 331	42 419	844	1 788	23 546	118 341	105 996	224 540	11 291
335312	Motor & generator mfg	-	13	8	1 446	38 882	1 019	1 973	24 148	113 039	49 600	162 861	3 272
335313	Switchgear & switchboard apparatus mfg	-	9	3	677	16 175	424	855	7 737	34 734	44 808	78 885	1 590
335314	Relay & industrial control mfg	-	27	8	4 049	166 201	1 658	3 277	52 370	426 843	340 768	748 779	16 487

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	VIRGINIA—Con.												
31-33	Manufacturing—Con.												
335	Electrical equipment, appliance, & component mfg—Con.												
3359	Other electrical equipment & component mfg	-	26	14	2 180	58 015	1 660	3 123	40 728	176 170	285 648	455 156	10 133
33592	Communication & energy wire & cable mfg	-	6	6	1 430	41 649	1 110	2 204	31 758	134 157	239 421	365 196	8 730
335921	Fiber optic cable mfg...	-	2	2	c	D	D	D	D	D	D	D	D
335929	Other communication & energy wire mfg ...	-	4	4	g	D	D	D	D	D	D	D	D
33599	All other electrical equipment & component mfg	2	13	6	671	14 085	495	827	7 710	36 895	43 622	82 252	1 222
335999	All other miscellaneous electrical equipment & component mfg	2	13	6	671	14 085	495	827	7 710	36 895	43 622	82 252	1 222
336	Transportation equipment mfg	-	175	78	36 782	1 390 636	30 181	61 488	990 964	4 947 150	5 887 475	10 842 887	196 714
3361	Motor vehicle mfg	-	8	3	h	D	D	D	D	D	D	D	D
33611	Automobile & light duty motor vehicle mfg	-	7	2	h	D	D	D	D	D	D	D	D
336111	Automobile mfg	-	3	1	c	D	D	D	D	D	D	D	D
336112	Light truck & utility vehicle mfg	-	4	1	g	D	D	D	D	D	D	D	D
33612	Heavy duty truck mfg ...	-	1	1	g	D	D	D	D	D	D	D	D
336120	Heavy duty truck mfg .	-	1	1	g	D	D	D	D	D	D	D	D
3362	Motor vehicle body & trailer mfg	-	27	10	g	D	D	D	D	D	D	D	3 925
33621	Motor vehicle body & trailer mfg	-	27	10	g	D	D	D	D	D	D	D	3 925
336211	Motor vehicle body mfg	-	13	7	498	12 746	386	756	8 293	21 627	38 917	60 475	2 781
336212	Truck trailer mfg	-	4	1	f	D	D	D	D	D	D	D	D
336214	Travel trailer & camper mfg	-	8	2	e	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	1	72	37	7 620	240 896	6 038	12 042	163 393	678 079	932 409	1 613 266	78 784
33631	Motor vehicle gasoline engine & engine parts mfg	-	19	7	2 199	74 091	1 641	3 418	47 418	190 805	123 952	315 862	15 421
336311	Carburetor, piston, piston ring, & valve mfg	1	3	1	102	3 150	78	166	2 187	6 580	3 253	9 899	311
336312	Gasoline engine & engine parts mfg	-	16	6	2 097	70 941	1 563	3 252	45 231	184 225	120 699	305 963	15 110
33632	Motor vehicle electrical & electronic equipment mfg	2	20	10	g	D	D	D	D	D	D	D	4 530
336321	Vehicular lighting equipment mfg	-	1	1	c	D	D	D	D	D	D	D	D
336322	Other motor vehicle electrical & electronic equipment mfg	3	19	9	995	20 272	797	1 247	11 124	51 659	52 872	108 781	D
33634	Motor vehicle brake system mfg	-	7	7	1 687	55 033	1 367	2 791	37 188	101 999	111 288	216 964	26 950
336340	Motor vehicle brake system mfg	-	7	7	1 687	55 033	1 367	2 791	37 188	101 999	111 288	216 964	26 950
33635	Motor vehicle transmission & power train parts mfg	1	10	4	g	D	D	D	D	D	D	D	D
336350	Motor vehicle transmission & power train parts mfg	1	10	4	g	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts mfg	6	13	8	1 423	43 352	1 120	2 178	30 127	123 739	89 105	213 327	11 422
336399	All other motor vehicle parts mfg	6	13	8	1 423	43 352	1 120	2 178	30 127	123 739	89 105	213 327	11 422
3364	Aerospace product & parts mfg	-	14	5	653	41 732	346	684	17 486	305 037	315 937	609 656	2 668
33641	Aerospace product & parts mfg	-	14	5	653	41 732	346	684	17 486	305 037	315 937	609 656	2 668
336414	Guided missile & space vehicle mfg ...	-	1	1	c	D	D	D	D	D	D	D	D
336415	Guided missile & space vehicle propulsion unit & parts mfg	-	2	2	e	D	D	D	D	D	D	D	D
336419	Other guided missile & space vehicle parts & auxiliary equip mfg...	-	2	1	c	D	D	D	D	D	D	D	D
3365	Railroad rolling stock mfg ..	-	2	1	e	D	D	D	D	D	D	D	D
33651	Railroad rolling stock mfg	-	2	1	e	D	D	D	D	D	D	D	D
336510	Railroad rolling stock mfg	-	2	1	e	D	D	D	D	D	D	D	D

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	VIRGINIA—Con.												
	Manufacturing—Con.												
336	Transportation equipment mfg—Con.												
3366	Ship & boat building	—	49	21	22 224	826 408	18 571	37 667	578 100	1 411 662	847 407	2 259 118	44 037
33661	Ship & boat building	—	49	21	22 224	826 408	18 571	37 667	578 100	1 411 662	847 407	2 259 118	44 037
336611	Ship building & repairing	—	36	18	22 086	823 172	18 464	37 474	575 955	1 405 867	839 825	2 245 692	43 864
336612	Boat building	8	13	3	138	3 236	107	193	2 145	5 795	7 582	13 426	173
337	Furniture & related product mfg	1	472	110	23 671	505 571	20 591	41 271	394 899	1 207 521	973 983	2 175 392	63 925
3371	Household & institutional furniture & kitchen cabinet mfg	1	375	72	20 060	413 435	17 884	35 759	332 647	978 972	796 377	1 772 155	46 721
33711	Wood kitchen cabinet & counter top mfg	2	212	16	2 964	69 349	2 461	4 799	52 744	224 614	144 618	367 150	4 553
337110	Wood kitchen cabinet & counter top mfg ...	2	212	16	2 964	69 349	2 461	4 799	52 744	224 614	144 618	367 150	4 553
33712	Household & institutional furniture mfg	—	163	56	17 096	344 086	15 423	30 960	279 903	754 358	651 759	1 405 005	42 168
337121	Upholstered household furniture mfg	1	29	12	1 735	38 320	1 539	3 240	29 770	84 690	85 677	170 611	2 295
337122	Nonupholstered wood household furniture mfg	—	107	37	14 680	289 978	13 306	26 840	238 750	641 175	537 613	1 173 298	37 949
337127	Institutional furniture mfg	3	16	5	428	11 445	351	546	7 814	22 128	17 671	39 767	1 532
337129	Wood television, radio, & sewing machine cabinet mfg	—	2	1	c	D	D	D	D	D	D	D	D
3372	Office furniture (including fixtures) mfg	1	71	28	2 882	74 038	2 141	4 359	50 323	169 272	121 098	287 643	13 582
33721	Office furniture (including fixtures) mfg	1	71	28	2 882	74 038	2 141	4 359	50 323	169 272	121 098	287 643	13 582
337212	Custom architectural woodwork & millwork mfg	1	33	12	833	23 264	605	1 119	13 771	50 861	26 259	77 984	D
337214	Office furniture (except wood) mfg	—	3	3	f	D	D	D	D	D	D	D	D
337215	Showcase, partition, shelving, & locker mfg	3	32	12	1 327	30 826	972	1 968	21 116	65 661	53 622	116 083	2 336
3379	Other furniture related product mfg	2	26	10	729	18 098	566	1 153	11 929	59 277	56 508	115 594	3 622
33791	Mattress mfg	2	15	8	585	15 224	446	925	9 799	53 128	46 589	99 518	3 489
337910	Mattress mfg	2	15	8	585	15 224	446	925	9 799	53 128	46 589	99 518	3 489
33792	Blind & shade mfg	2	11	2	144	2 874	120	228	2 130	6 149	9 919	16 076	133
337920	Blind & shade mfg	2	11	2	144	2 874	120	228	2 130	6 149	9 919	16 076	133
339	Miscellaneous mfg	1	480	77	9 620	263 470	7 036	13 362	154 932	651 233	606 803	1 271 791	34 691
3391	Medical equipment & supplies mfg	1	225	25	3 476	95 357	2 422	4 607	59 637	297 262	230 115	525 997	17 560
33911	Medical equipment & supplies mfg	1	225	25	3 476	95 357	2 422	4 607	59 637	297 262	230 115	525 997	17 560
339112	Surgical & medical instrument mfg	—	12	4	757	24 026	631	1 175	19 560	97 632	55 826	154 108	4 561
339113	Surgical appliance & supplies mfg	1	30	9	1 190	31 214	768	1 629	19 436	126 753	139 068	264 734	6 547
339115	Ophthalmic goods mfg	—	10	3	647	17 519	389	758	6 891	29 052	15 507	42 881	5 090
339116	Dental laboratories ...	6	153	6	720	17 334	530	843	10 810	36 397	13 923	50 905	1 110
3399	Other miscellaneous mfg ...	—	255	52	6 144	168 113	4 614	8 755	95 295	353 971	376 688	745 794	17 131
33991	Jewelry & silverware mfg	—	30	2	339	8 807	265	418	4 919	21 424	44 897	68 233	1 716
339911	Jewelry (except costume) mfg	—	19	1	202	6 093	154	294	3 481	14 034	34 750	51 008	1 287
33992	Sporting & athletic goods mfg	—	25	5	888	28 403	494	1 070	10 680	48 602	76 814	138 426	3 275
339920	Sporting & athletic goods mfg	—	25	5	888	28 403	494	1 070	10 680	48 602	76 814	138 426	3 275
33993	Doll, toy, & game mfg ...	7	17	3	141	2 076	120	177	1 428	4 381	3 169	7 586	237
339932	Game, toy, & children's vehicle mfg	6	14	3	c	D	D	D	D	D	D	D	D
33995	Sign mfg	1	113	17	1 230	35 435	828	1 616	18 316	59 420	40 669	99 211	1 660
339950	Sign mfg	1	113	17	1 230	35 435	828	1 616	18 316	59 420	40 669	99 211	1 660
33999	All other miscellaneous mfg	—	63	24	3 463	91 369	2 857	5 372	58 502	216 833	209 040	426 936	10 074
339991	Gasket, packing, & sealing device mfg ...	—	12	8	1 263	33 456	1 009	2 052	21 872	90 018	80 413	173 174	6 167
339993	Fastener, button, needle, & pin mfg	—	3	1	c	D	D	D	D	D	D	D	177
339994	Broom, brush, & mop mfg	—	4	3	151	5 278	114	216	3 094	9 475	11 803	21 479	D
339999	All other miscellaneous mfg	—	37	12	1 914	49 771	1 633	2 927	31 681	110 918	113 895	223 193	3 043

Table 1. Industry Statistics for the State: 1997—Con.

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of 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.

²Industries 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.

Table 2. Industry Statistics for Metropolitan Areas: 1997

[Includes data for industry groups and industries with 250 employees or more. For definitions of CMSAs, MSAs, and PMSAs, information on geographic areas followed by *, and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
CHARLOTTESVILLE, VA MSA													
31-33	Manufacturing	1	142	36	6 980	235 662	4 214	8 385	100 118	623 379	549 758	1 162 515	35 099
311	Food mfg	—	16	2	f	D	D	D	D	D	D	D	1 819
3114	Fruit & vegetable preserving & specialty food mfg	—	2	1	f	D	D	D	D	D	D	D	D
31141	Frozen food mfg	—	2	1	f	D	D	D	D	D	D	D	D
311412	Frozen specialty food mfg	—	2	1	f	D	D	D	D	D	D	D	D
313	Textile mills	9	2	1	e	D	D	D	D	D	D	D	D
3132	Fabric mills	9	1	1	e	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills ..	9	1	1	e	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	9	1	1	e	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	—	15	8	2 088	76 845	1 012	2 036	24 788	178 799	97 500	281 607	14 105
3342	Communications equipment mfg	—	2	1	f	D	D	D	D	D	D	D	D
33421	Telephone apparatus mfg	—	1	1	f	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	—	1	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	—	6	4	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	—	6	4	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	—	2	2	f	D	D	D	D	D	D	D	D
3346	Mfg & reproducing magnetic & optical media ..	—	1	1	e	D	D	D	D	D	D	D	D
33461	Mfg & reproducing magnetic & optical media	—	1	1	e	D	D	D	D	D	D	D	D
334612	Prerecorded CD (except software), tape, & record reproducing	—	1	1	e	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	—	4	2	g	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	—	2	1	g	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	—	2	1	g	D	D	D	D	D	D	D	D
335314	Relay & industrial control mfg	—	2	1	g	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	1	12	3	455	9 951	398	723	7 712	39 911	27 875	68 265	D
3371	Household & institutional furniture & kitchen cabinet mfg	2	10	2	e	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	2	5	2	e	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	—	4	1	e	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	1	19	5	385	13 119	271	553	7 404	24 586	42 185	68 141	1 203

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	DANVILLE, VA MSA												
31-33	Manufacturing	1	106	46	15 092	420 079	12 391	24 860	307 747	1 292 414	1 542 403	2 845 998	90 795
311	Food mfg	-	4	1	e	D	D	D	D	D	D	D	D
3118	Bakeries & tortilla mfg	-	2	1	e	D	D	D	D	D	D	D	D
31182	Cookie, cracker, & pasta mfg	-	1	1	e	D	D	D	D	D	D	D	D
311823	Dry pasta mfg	-	1	1	e	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	-	5	3	f	D	D	D	D	D	D	D	D
3122	Tobacco mfg	-	3	3	f	D	D	D	D	D	D	D	D
31221	Tobacco stemming & redrying	-	3	3	f	D	D	D	D	D	D	D	D
312210	Tobacco stemming & redrying	-	3	3	f	D	D	D	D	D	D	D	D
313	Textile mills	5	4	4	i	D	D	D	D	D	D	D	D
3132	Fabric mills	9	2	2	i	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills	9	2	2	i	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	9	2	2	i	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	-	2	2	g	D	D	D	D	D	D	D	D
31331	Textile & fabric finishing mills	-	2	2	g	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills	-	1	1	g	D	D	D	D	D	D	D	D
315	Apparel mfg	-	7	6	g	D	D	D	D	D	D	D	1 484
3151	Apparel knitting mills	-	2	1	e	D	D	D	D	D	D	D	D
31511	Hosiery & sock mills	-	1	1	e	D	D	D	D	D	D	D	D
315119	Other hosiery & sock mills	-	1	1	e	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	5	5	g	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	-	2	2	f	D	D	D	D	D	D	D	D
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	-	1	1	e	D	D	D	D	D	D	D	D
315228	Men's & boys' cut & sew other outerwear mfg	-	1	1	e	D	D	D	D	D	D	D	D
31529	Other cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
315291	Infants' cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
321	Wood product mfg	-	23	8	1 014	25 614	834	1 689	19 479	67 507	110 887	178 732	5 874
3212	Veneer, plywood, & engineered wood product mfg	-	6	4	624	17 179	523	1 040	13 606	43 085	77 758	121 126	4 098
32121	Veneer, plywood, & engineered wood product mfg	-	6	4	624	17 179	523	1 040	13 606	43 085	77 758	121 126	4 098
321211	Hardwood veneer & plywood mfg	-	3	2	e	D	D	D	D	D	D	D	D
3219	Other wood product mfg	-	10	2	258	5 822	198	455	4 000	17 449	23 828	41 114	640
322	Paper mfg	-	3	3	479	15 040	292	700	6 901	52 403	72 621	121 605	3 892
3222	Converted paper product mfg	-	3	3	479	15 040	292	700	6 901	52 403	72 621	121 605	3 892
32222	Paper bag & coated & treated paper mfg	-	1	1	e	D	D	D	D	D	D	D	D
322222	Coated & laminated paper mfg	-	1	1	e	D	D	D	D	D	D	D	D
323	Printing & related support activities	1	10	3	313	7 438	215	393	5 230	16 106	13 823	29 967	698
3231	Printing & related support activities	1	10	3	313	7 438	215	393	5 230	16 106	13 823	29 967	698
32311	Printing	1	10	3	313	7 438	215	393	5 230	16 106	13 823	29 967	698
326	Plastics & rubber products mfg	-	4	1	g	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	3	1	g	D	D	D	D	D	D	D	D
32621	Tire mfg	-	3	1	g	D	D	D	D	D	D	D	D
326211	Tire mfg (except retreading)	-	2	1	g	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	-	4	3	523	19 523	401	879	13 685	72 533	24 991	98 050	D
3272	Glass & glass product mfg	-	2	2	e	D	D	D	D	D	D	D	D
32721	Glass & glass product mfg	-	2	2	e	D	D	D	D	D	D	D	D
327212	Other pressed & blown glass & glassware mfg	-	1	1	e	D	D	D	D	D	D	D	D

Table 2. Industry Statistics for Metropolitan Areas: 1997—Con.

[Includes data for industry groups and industries with 250 employees or more. For definitions of CMSAs, MSAs, and PMSAs, information on geographic areas followed by *, and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	DANVILLE, VA MSA—Con.												
31-33	Manufacturing—Con.												
335	Electrical equipment, appliance, & component mfg	—	3	2	f	D	D	D	D	D	D	D	D
3359	Other electrical equipment & component mfg	—	2	2	f	D	D	D	D	D	D	D	D
33592	Communication & energy wire & cable mfg	—	1	1	f	D	D	D	D	D	D	D	D
335929	Other communication & energy wire mfg ...	—	1	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	—	4	3	e	D	D	D	D	D	D	D	D
	JOHNSON CITY—KINGSPORT—BRISTOL, TN—VA MSA												
31-33	Manufacturing	—	571	225	48 454	1 628 128	36 024	72 241	998 349	4 405 437	4 191 955	8 652 607	462 319
	Johnson City—Kingsport—Bristol, TN—VA MSA (TN Part)	—	453	178	38 984	1 380 616	28 551	57 017	825 960	3 736 418	3 262 698	7 062 866	419 848
	Johnson City—Kingsport—Bristol, TN—VA MSA (VA Part)	—	118	47	9 470	247 512	7 473	15 224	172 389	669 019	929 257	1 589 741	42 471
311	Food mfg	—	22	10	1 352	31 940	585	1 063	12 013	95 197	121 341	216 887	D
3118	Bakeries & tortilla mfg	—	6	4	e	D	D	D	D	D	D	D	D
31181	Bread & bakery product mfg	—	6	4	e	D	D	D	D	D	D	D	D
311812	Commercial bakeries ..	—	6	4	e	D	D	D	D	D	D	D	D
3119	Other food mfg	—	3	2	f	D	D	D	D	D	D	D	D
31191	Snack food mfg	—	2	2	f	D	D	D	D	D	D	D	D
311919	Other snack food mfg ..	—	2	2	f	D	D	D	D	D	D	D	D
313	Textile mills	2	12	9	2 158	52 277	1 850	3 568	40 258	103 849	164 777	272 880	9 477
3132	Fabric mills	—	4	4	1 211	29 356	1 088	2 212	23 769	60 921	102 725	164 377	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
3133	Textile & fabric finishing & fabric coating mills	6	7	4	f	D	D	D	D	D	D	D	D
31331	Textile & fabric finishing mills	4	4	2	e	D	D	D	D	D	D	D	D
31332	Fabric coating mills	6	3	2	e	D	D	D	D	D	D	D	D
313320	Fabric coating mills ...	6	3	2	e	D	D	D	D	D	D	D	D
314	Textile product mills	—	13	5	264	5 234	207	335	2 550	17 542	5 981	23 291	255
3149	Other textile product mills ..	—	8	5	e	D	D	D	D	D	D	D	247
315	Apparel mfg	3	17	14	1 892	30 892	1 725	3 329	27 617	96 404	46 669	144 309	2 405
3152	Cut & sew apparel mfg	3	13	11	g	D	D	D	D	D	D	D	D
31521	Cut & sew apparel contractors	5	7	6	f	D	D	D	D	D	D	D	D
315212	Women's, girls', & infants' cut & sew apparel contractors ..	4	6	5	526	8 948	490	1 183	8 400	11 180	2 045	13 221	D
31522	Men's & boys' cut & sew apparel mfg	—	3	3	f	D	D	D	D	D	D	D	1 618
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	—	1	1	e	D	D	D	D	D	D	D	D
315225	Men's & boys' cut & sew work clothing mfg	—	2	2	e	D	D	D	D	D	D	D	D
31523	Women's & girls' cut & sew apparel mfg	8	3	2	e	D	D	D	D	D	D	D	D
321	Wood product mfg	1	50	15	1 306	26 883	1 149	2 258	19 562	57 000	120 953	171 681	7 605
3211	Sawmills & wood preservation	2	19	6	e	D	D	D	D	D	D	D	3 623
32111	Sawmills & wood preservation	2	19	6	e	D	D	D	D	D	D	D	3 623
3219	Other wood product mfg ...	—	26	8	806	17 525	704	1 361	12 536	32 411	74 274	105 605	D
32191	Millwork	—	8	4	617	14 185	545	1 100	10 154	25 282	65 031	89 265	D
321918	Other millwork (including flooring) ...	—	3	3	433	10 846	385	812	7 701	19 820	62 426	80 733	D

Table 2. Industry Statistics for Metropolitan Areas: 1997—Con.

[Includes data for industry groups and industries with 250 employees or more. For definitions of CMSAs, MSAs, and PMSAs, information on geographic areas followed by *, and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	JOHNSON CITY—KINGSPORT—BRISTOL, TN—VA MSA—Con. Manufacturing—Con.												
322	Paper mfg	-	12	11	1 156	42 216	901	1 909	31 227	93 210	224 462	317 260	50 203
3221	Pulp, paper, & paperboard mills	-	1	1	f	D	D	D	D	D	D	D	D
32212	Paper mills	-	1	1	f	D	D	D	D	D	D	D	D
322121	Paper (except newsprint) mills	-	1	1	f	D	D	D	D	D	D	D	D
3222	Converted paper product mfg	-	11	10	f	D	D	D	D	D	D	D	D
32221	Paperboard container mfg	-	7	6	385	10 104	281	591	6 129	20 603	35 851	56 082	D
322211	Corrugated & solid fiber box mfg	-	4	3	e	D	D	D	D	D	D	D	D
323	Printing & related support activities	-	71	20	4 225	116 828	3 665	7 553	93 026	257 733	196 929	451 666	31 490
3231	Printing & related support activities	-	71	20	4 225	116 828	3 665	7 553	93 026	257 733	196 929	451 666	31 490
32311	Printing	-	66	20	4 197	116 436	3 641	7 530	92 730	256 661	196 779	450 453	31 445
323110	Commercial lithographic printing ..	2	34	6	419	9 457	314	537	5 803	17 975	14 137	32 258	1 096
323111	Commercial gravure printing	-	3	2	e	D	D	D	D	D	D	D	D
323117	Book printing	-	6	6	2 847	76 919	2 537	5 113	65 000	156 338	114 999	268 105	D
325	Chemical mfg	-	23	9	12 634	672 537	7 070	14 546	312 060	2 022 755	1 386 002	3 458 936	D
3251	Basic chemical mfg	-	4	1	j	D	D	D	D	D	D	D	D
32519	Other basic organic chemical mfg	-	1	1	j	D	D	D	D	D	D	D	D
325199	All other basic organic chemical mfg	-	1	1	j	D	D	D	D	D	D	D	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	-	3	2	f	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg ..	-	3	2	f	D	D	D	D	D	D	D	D
325221	Cellulosic organic fiber mfg	-	1	1	e	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg	-	2	1	e	D	D	D	D	D	D	D	D
3254	Pharmaceutical & medicine mfg	-	5	4	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	-	5	4	f	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	-	4	3	f	D	D	D	D	D	D	D	D
3259	Other chemical product mfg	-	7	1	544	27 985	320	814	14 372	46 448	14 588	61 048	60
32592	Explosives mfg	-	2	1	f	D	D	D	D	D	D	D	D
325920	Explosives mfg	-	2	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	26	16	2 023	53 992	1 605	3 188	37 762	157 179	177 442	335 366	7 178
3261	Plastics product mfg	1	17	10	971	23 731	806	1 442	16 047	61 584	69 089	131 273	D
32619	Other plastics product mfg	1	13	8	f	D	D	D	D	D	D	D	D
326199	All other plastics product mfg	1	13	8	f	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	9	6	1 052	30 261	799	1 746	21 715	95 595	108 353	204 093	D
32629	Other rubber product mfg	-	7	6	g	D	D	D	D	D	D	D	D
326291	Rubber product mfg for mechanical use	-	2	2	f	D	D	D	D	D	D	D	D
326299	All other rubber product mfg	-	5	4	e	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	-	40	16	2 278	70 644	1 871	3 957	53 049	242 474	138 117	376 116	14 644
3271	Clay product & refractory mfg	-	6	3	379	10 489	303	641	7 524	36 711	14 935	51 427	D
32712	Clay building material & refractories mfg	-	4	3	e	D	D	D	D	D	D	D	D
3272	Glass & glass product mfg ..	-	6	3	g	D	D	D	D	D	D	D	D
32721	Glass & glass product mfg	-	6	3	g	D	D	D	D	D	D	D	D
327211	Flat glass mfg	-	2	2	g	D	D	D	D	D	D	D	D
3273	Cement & concrete product mfg	2	23	7	372	9 945	279	512	5 568	27 428	22 663	50 203	2 185

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31-33	JOHNSON CITY—KINGSPORT—BRISTOL, TN—VA MSA—Con.												
	Manufacturing—Con.												
331	Primary metal mfg	—	20	12	g	D	D	D	D	D	D	D	11 586
3312	Steel product mfg from purchased steel	1	3	3	819	20 131	667	1 042	13 162	70 698	72 654	143 740	3 248
33121	Iron & steel pipes & tubes mfg from purchased steel	1	3	3	819	20 131	667	1 042	13 162	70 698	72 654	143 740	3 248
331210	Iron & steel pipes & tubes mfg from purchased steel	1	3	3	819	20 131	667	1 042	13 162	70 698	72 654	143 740	3 248
3313	Alumina & aluminum production & processing	—	3	2	e	D	D	D	D	D	D	D	D
33131	Alumina & aluminum production & processing	—	3	2	e	D	D	D	D	D	D	D	D
331316	Aluminum extruded product mfg	—	2	1	e	D	D	D	D	D	D	D	D
3315	Foundries	—	11	5	f	D	D	D	D	D	D	D	1 246
33152	Nonferrous metal foundries	—	4	2	e	D	D	D	D	D	D	D	D
331521	Aluminum die-casting foundries	—	2	2	e	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	—	99	33	3 818	113 584	3 060	5 854	82 269	292 257	275 723	573 839	16 192
3321	Forging & stamping	1	9	6	707	18 142	525	1 143	12 733	36 287	40 830	77 481	2 229
33211	Forging & stamping	1	9	6	707	18 142	525	1 143	12 733	36 287	40 830	77 481	2 229
332111	Iron & steel forging	2	3	2	e	D	D	D	D	D	D	D	D
332116	Metal stamping	—	4	3	331	8 082	258	592	5 556	14 287	22 515	36 893	D
3322	Cutlery & handtool mfg	—	5	3	f	D	D	D	D	D	D	D	D
33221	Cutlery & handtool mfg	—	5	3	f	D	D	D	D	D	D	D	D
332212	Hand & edge tool mfg	—	5	3	f	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg	—	15	7	661	16 527	510	1 017	11 437	36 478	48 731	84 635	2 164
33231	Plate work & fabricated structural product mfg	—	10	4	317	8 342	237	433	5 574	21 960	25 470	47 408	1 208
332312	Fabricated structural metal mfg	—	9	4	e	D	D	D	D	D	D	D	D
33232	Ornamental & architectural metal products mfg	—	5	3	344	8 185	273	584	5 863	14 518	23 261	37 227	956
332321	Metal window & door mfg	—	3	2	e	D	D	D	D	D	D	D	D
3324	Boiler, tank, & shipping container mfg	—	3	2	e	D	D	D	D	D	D	D	D
33243	Metal can, box, & other metal container (light gauge) mfg	—	1	1	e	D	D	D	D	D	D	D	D
332431	Metal can mfg	—	1	1	e	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	51	7	e	D	D	D	D	D	D	D	D
33271	Machine shops	1	48	6	461	12 229	358	605	8 216	21 100	13 409	34 765	1 513
332710	Machine shops	1	48	6	461	12 229	358	605	8 216	21 100	13 409	34 765	1 513
3329	Other fabricated metal product mfg	—	6	3	848	32 618	702	1 455	24 288	112 411	59 507	183 441	4 963
33299	All other fabricated metal product mfg	—	5	3	f	D	D	D	D	D	D	D	D
332991	Ball & roller bearing mfg	—	3	3	827	32 111	686	1 430	23 945	111 298	58 640	181 456	4 892
333	Machinery mfg	—	44	15	5 102	135 579	4 409	9 016	102 546	351 579	493 406	844 463	19 626
3331	Agriculture, construction, & mining machinery mfg	3	7	5	537	17 948	411	796	10 111	32 277	58 976	95 443	D
33313	Mining & oil & gas field machinery mfg	4	5	3	e	D	D	D	D	D	D	D	D
333131	Mining machinery & equipment mfg	4	5	3	e	D	D	D	D	D	D	D	D
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	—	5	4	h	D	D	D	D	D	D	D	D
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	—	5	4	h	D	D	D	D	D	D	D	D
333415	AC & warm air heating & commercial/ industrial refig equip mfg	—	3	3	h	D	D	D	D	D	D	D	D
3335	Metalworking machinery mfg	—	13	1	542	17 845	469	902	14 376	31 999	15 629	47 437	2 859
33351	Metalworking machinery mfg	—	13	1	542	17 845	469	902	14 376	31 999	15 629	47 437	2 859
333515	Cutting tool & machine tool accessory mfg	—	3	1	e	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	JOHNSON CITY—KINGSPORT—BRISTOL, TN—VA MSA—Con.												
	Manufacturing—Con.												
333	Machinery mfg—Con.												
3339	Other general-purpose machinery mfg	-	11	3	755	21 217	561	1 194	12 488	91 740	42 404	132 384	D
33391	Pump & compressor mfg	-	2	1	e	D	D	D	D	D	D	D	D
333913	Measuring & dispensing pump mfg	-	1	1	e	D	D	D	D	D	D	D	D
33392	Material handling equipment mfg	-	6	1	e	D	D	D	D	D	D	D	D
333923	Overhead traveling crane, hoist, & monorail system mfg .	-	1	1	e	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	11	4	613	17 884	403	818	9 786	49 175	51 160	102 942	D
3344	Semiconductor & other electronic component mfg	-	1	1	e	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	-	1	1	e	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) mfg	-	1	1	e	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	9	5	2 815	69 168	2 032	3 965	41 379	69 075	285 344	359 279	D
3352	Household appliance mfg..	-	2	2	g	D	D	D	D	D	D	D	D
33521	Small electrical appliance mfg	-	1	1	f	D	D	D	D	D	D	D	D
335212	Household vacuum cleaner mfg	-	1	1	f	D	D	D	D	D	D	D	D
33522	Major appliance mfg	-	1	1	g	D	D	D	D	D	D	D	D
335228	Other major household appliance mfg	-	1	1	g	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	3	2	f	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	-	3	2	f	D	D	D	D	D	D	D	D
335312	Motor & generator mfg	-	2	1	e	D	D	D	D	D	D	D	D
335313	Switchgear & switchboard apparatus mfg	-	1	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	-	18	11	2 723	92 563	2 161	4 627	65 621	246 913	248 711	498 182	11 680
3363	Motor vehicle parts mfg ...	-	11	7	2 560	88 465	2 029	4 358	62 900	239 701	238 432	480 585	11 316
33633	Motor vehicle steering & suspension component (except spring) mfg	-	1	1	g	D	D	D	D	D	D	D	D
336330	Motor vehicle steering & suspension component (except spring) mfg	-	1	1	g	D	D	D	D	D	D	D	D
33634	Motor vehicle brake system mfg	-	2	1	e	D	D	D	D	D	D	D	D
336340	Motor vehicle brake system mfg	-	2	1	e	D	D	D	D	D	D	D	D
33635	Motor vehicle transmission & power train parts mfg	-	1	1	e	D	D	D	D	D	D	D	D
336350	Motor vehicle transmission & power train parts mfg	-	1	1	e	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts mfg	-	3	1	e	D	D	D	D	D	D	D	106
336399	All other motor vehicle parts mfg	-	3	1	e	D	D	D	D	D	D	D	106
337	Furniture & related product mfg	1	35	10	1 254	24 433	1 127	2 085	19 656	52 053	39 663	91 653	1 821
3371	Household & institutional furniture & kitchen cabinet mfg	1	30	7	1 076	20 064	969	1 803	16 533	43 497	32 961	76 393	1 723
33712	Household & institutional furniture mfg	1	15	6	985	18 100	896	1 681	15 245	38 900	31 230	70 032	1 163
337122	Nonupholstered wood household furniture mfg	-	5	2	f	D	D	D	D	D	D	D	782

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	JOHNSON CITY—KINGSPORT—BRISTOL, TN—VA MSA—Con.												
31-33	Manufacturing—Con.												
339	Miscellaneous mfg	1	45	9	860	20 338	721	1 437	15 682	44 432	32 627	76 938	3 891
3391	Medical equipment & supplies mfg	3	20	3	284	5 711	257	503	4 814	10 770	4 300	14 892	292
33911	Medical equipment & supplies mfg	3	20	3	284	5 711	257	503	4 814	10 770	4 300	14 892	292
3399	Other miscellaneous mfg	—	25	6	576	14 627	464	934	10 868	33 662	28 327	62 046	3 599
33999	All other miscellaneous mfg	—	8	3	438	11 312	372	751	8 877	27 244	25 989	53 227	D
	LYNCHBURG, VA MSA												
31-33	Manufacturing	—	298	116	23 078	770 249	16 681	32 945	450 081	2 921 277	2 487 136	5 391 470	273 375
311	Food mfg	—	18	10	1 739	49 171	1 227	2 583	30 653	640 065	252 442	890 726	18 400
3115	Dairy product mfg	—	3	2	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) mfg	—	3	2	f	D	D	D	D	D	D	D	D
311514	Dry, condensed, & evaporated dairy product mfg	—	1	1	f	D	D	D	D	D	D	D	D
3116	Meat product mfg	—	5	4	338	6 172	239	455	4 304	18 014	30 199	47 933	D
31161	Animal slaughtering & processing	—	5	4	338	6 172	239	455	4 304	18 014	30 199	47 933	D
313	Textile mills	1	3	2	f	D	D	D	D	D	D	D	D
3132	Fabric mills	1	3	2	f	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills	1	2	2	f	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	1	2	2	f	D	D	D	D	D	D	D	D
314	Textile product mills	—	6	1	e	D	D	D	D	D	D	D	D
3141	Textile furnishings mills	—	5	1	e	D	D	D	D	D	D	D	D
31412	Curtain & linen mills	—	5	1	e	D	D	D	D	D	D	D	D
314129	Other household textile product mills	—	1	1	e	D	D	D	D	D	D	D	D
315	Apparel mfg	6	9	5	303	3 893	245	479	3 087	8 564	7 716	16 232	D
3152	Cut & sew apparel mfg	6	9	5	303	3 893	245	479	3 087	8 564	7 716	16 232	D
321	Wood product mfg	2	43	10	772	17 861	653	1 214	13 649	42 497	78 702	119 507	6 435
3211	Sawmills & wood preservation	2	25	4	282	5 856	232	392	4 257	14 021	34 765	47 511	1 203
32111	Sawmills & wood preservation	2	25	4	282	5 856	232	392	4 257	14 021	34 765	47 511	1 203
321113	Sawmills	4	24	4	e	D	D	D	D	D	D	D	D
3219	Other wood product mfg	5	17	5	e	D	D	D	D	D	D	D	D
32191	Millwork	6	7	4	263	5 810	235	444	4 663	16 439	12 592	28 980	D
322	Paper mfg	—	7	5	1 395	58 654	1 126	2 709	40 029	143 804	229 755	373 263	D
3221	Pulp, paper, & paperboard mills	—	3	3	1 091	49 193	906	2 169	33 694	120 229	195 388	315 179	38 861
32213	Paperboard mills	—	3	3	1 091	49 193	906	2 169	33 694	120 229	195 388	315 179	38 861
322130	Paperboard mills	—	3	3	1 091	49 193	906	2 169	33 694	120 229	195 388	315 179	38 861
3222	Converted paper product mfg	—	4	2	304	9 461	220	540	6 335	23 575	34 367	58 084	D
32221	Paperboard container mfg	—	3	2	e	D	D	D	D	D	D	D	D
323	Printing & related support activities	—	27	8	1 973	57 376	1 573	2 632	41 532	129 389	83 866	212 460	29 206
3231	Printing & related support activities	—	27	8	1 973	57 376	1 573	2 632	41 532	129 389	83 866	212 460	29 206
32311	Printing	—	24	8	g	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing	2	15	6	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 mfg	—	9	6	2 220	96 578	1 723	3 305	71 620	379 287	78 159	458 786	4 737
3251	Basic chemical mfg	—	1	1	g	D	D	D	D	D	D	D	D
32518	Other basic inorganic chemical mfg	—	1	1	g	D	D	D	D	D	D	D	D
325188	All other basic inorganic chemical mfg	—	1	1	g	D	D	D	D	D	D	D	D
3254	Pharmaceutical & medicine mfg	—	1	1	e	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	—	1	1	e	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	—	1	1	e	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	LYNCHBURG, VA MSA—Con.												
31-33	Manufacturing—Con.												
326	Plastics & rubber products mfg	-	11	6	1 524	47 542	1 163	2 382	31 713	174 306	139 336	309 105	21 928
3261	Plastics product mfg	-	9	5	f	D	D	D	D	D	D	D	D
32611	Unsupported plastics film, sheet, & bag mfg ..	-	2	2	e	D	D	D	D	D	D	D	D
326111	Unsupported plastics bag mfg	-	1	1	e	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	2	1	f	D	D	D	D	D	D	D	D
32629	Other rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
326299	All other rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	2	19	7	287	6 846	232	425	4 938	17 477	13 222	31 734	1 925
331	Primary metal mfg	-	2	2	g	D	D	D	D	D	D	D	D
3315	Foundries	-	2	2	g	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries ..	-	2	2	g	D	D	D	D	D	D	D	D
331511	Iron foundries	-	2	2	g	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	1	54	18	2 090	81 560	1 299	2 786	41 594	264 491	155 652	412 151	11 963
3321	Forging & stamping	-	4	3	e	D	D	D	D	D	D	D	D
33211	Forging & stamping	-	4	3	e	D	D	D	D	D	D	D	D
332117	Powder metallurgy part mfg	-	1	1	e	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	4	29	8	f	D	D	D	D	D	D	D	D
33271	Machine shops	4	28	8	592	22 595	472	911	16 371	34 636	12 982	47 135	1 906
332710	Machine shops	4	28	8	592	22 595	472	911	16 371	34 636	12 982	47 135	1 906
3329	Other fabricated metal product mfg	-	6	2	f	D	D	D	D	D	D	D	5 501
33291	Metal valve mfg	-	1	1	e	D	D	D	D	D	D	D	D
332911	Industrial valve mfg ..	-	1	1	e	D	D	D	D	D	D	D	D
333	Machinery mfg	-	21	11	1 673	69 717	952	2 249	33 535	151 965	100 333	256 072	7 484
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	-	5	3	e	D	D	D	D	D	D	D	D
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg ..	-	5	3	e	D	D	D	D	D	D	D	D
333415	AC & warm air heating & commercial/ industrial refrig equip mfg	-	2	2	e	D	D	D	D	D	D	D	D
3335	Metalworking machinery mfg	-	5	2	e	D	D	D	D	D	D	D	1 147
33351	Metalworking machinery mfg	-	5	2	e	D	D	D	D	D	D	D	1 147
333513	Machine tool (metal forming types) mfg ..	-	1	1	e	D	D	D	D	D	D	D	D
3339	Other general-purpose machinery mfg	-	10	6	810	34 952	401	1 102	12 708	66 074	61 953	127 824	D
33392	Material handling equipment mfg	-	6	3	619	28 024	309	918	10 203	50 907	55 537	105 921	D
333922	Conveyor & conveying equipment mfg	-	5	3	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	13	10	h	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	-	3	2	h	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg	-	2	2	h	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	-	2	2	h	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	-	6	6	564	14 278	452	1 088	8 645	35 164	21 358	51 475	2 003
33441	Semiconductor & other electronic component mfg	-	6	6	564	14 278	452	1 088	8 645	35 164	21 358	51 475	2 003
334419	Other electronic component mfg	-	3	3	260	6 002	202	509	3 464	16 156	9 695	20 883	D

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	LYNCHBURG, VA MSA—Con.												
31-33	Manufacturing—Con.												
335	Electrical equipment, appliance, & component mfg	-	5	2	f	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	3	2	f	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	-	3	2	f	D	D	D	D	D	D	D	D
335312	Motor & generator mfg	-	1	1	e	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	-	9	3	358	10 535	262	450	5 848	23 090	27 770	50 206	3 055
3363	Motor vehicle parts mfg ...	-	1	1	e	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts mfg	-	1	1	e	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts mfg	-	1	1	e	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	-	26	8	2 002	39 874	1 739	3 125	30 414	87 205	77 346	169 851	3 758
3371	Household & institutional furniture & kitchen cabinet mfg	-	20	5	1 620	31 212	1 407	2 397	23 800	72 699	63 188	140 927	3 094
33712	Household & institutional furniture mfg	-	9	4	1 424	27 288	1 244	2 062	20 889	60 015	53 182	118 045	D
337121	Upholstered household furniture mfg	-	1	1	e	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	-	5	1	f	D	D	D	D	D	D	D	D
3372	Office furniture (including fixtures) mfg	-	6	3	382	8 662	332	728	6 614	14 506	14 158	28 924	664
33721	Office furniture (including fixtures) mfg	-	6	3	382	8 662	332	728	6 614	14 506	14 158	28 924	664
339	Miscellaneous mfg	-	15	2	439	11 164	357	789	7 475	37 117	13 654	52 276	D
3399	Other miscellaneous mfg ..	-	8	1	e	D	D	D	D	D	D	D	D
33999	All other miscellaneous mfg	-	5	1	e	D	D	D	D	D	D	D	D
339991	Gasket, packing, & sealing device mfg ...	-	1	1	e	D	D	D	D	D	D	D	D
	NORFOLK-VIRGINIA BEACH-NEWPORT NEWS, VA-NC MSA												
31-33	Manufacturing	-	1 043	294	62 701	2 066 784	47 989	95 591	1 375 411	7 873 317	8 913 554	16 721 023	386 837
	Norfolk-Virginia Beach-Newport News, VA-NC MSA (VA Part)	-	1 027	292	62 589	2 064 243	47 903	95 463	1 373 749	7 866 784	8 906 696	16 708 787	D
311	Food mfg	-	88	34	8 371	199 405	6 372	12 649	132 393	1 484 007	1 555 991	3 021 157	28 421
3115	Dairy product mfg	-	2	2	e	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) mfg	-	2	2	e	D	D	D	D	D	D	D	D
311511	Fluid milk mfg	-	2	2	e	D	D	D	D	D	D	D	D
3116	Meat product mfg	-	18	9	i	D	D	D	D	D	D	D	9 528
31161	Animal slaughtering & processing	-	18	9	i	D	D	D	D	D	D	D	9 528
311611	Animal (except poultry) slaughtering	-	5	2	h	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	-	10	6	1 002	24 246	778	1 761	17 215	85 507	138 477	223 562	D
3117	Seafood product preparation & packaging ..	1	14	5	323	7 332	173	295	3 070	17 924	44 758	62 681	1 167
31171	Seafood product preparation & packaging	1	14	5	323	7 332	173	295	3 070	17 924	44 758	62 681	1 167
311712	Fresh & frozen seafood processing ..	1	12	5	e	D	D	D	D	D	D	D	D
3118	Bakeries & tortilla mfg	-	33	8	1 133	24 413	646	1 040	10 734	69 270	42 140	111 501	3 571
31181	Bread & bakery product mfg	-	31	7	f	D	D	D	D	D	D	D	D
311812	Commercial bakeries ..	-	12	7	860	20 108	433	751	7 684	61 260	36 456	97 758	3 153
3119	Other food mfg	-	10	5	g	D	D	D	D	D	D	D	D
31191	Snack food mfg	-	4	2	e	D	D	D	D	D	D	D	D
311911	Roasted nuts & peanut butter mfg	-	4	2	e	D	D	D	D	D	D	D	D
31192	Coffee & tea mfg	-	3	3	f	D	D	D	D	D	D	D	D
311920	Coffee & tea mfg	-	3	3	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)					
31-33	NORFOLK-VIRGINIA BEACH-NEWPORT NEWS, VA-NC MSA—Con.													
	Manufacturing—Con.													
312	Beverage & tobacco product mfg.....	—	9	4	g	D	D	D	D	D	D	D	D	
3121	Beverage mfg.....	—	9	4	g	D	D	D	D	D	D	D	D	
31211	Soft drink & ice mfg.....	—	5	3	e	D	D	D	D	D	D	D	D	
312111	Soft drink mfg.....	—	2	2	e	D	D	D	D	D	D	D	D	
31212	Breweries.....	—	4	1	f	D	D	D	D	D	D	D	D	
312120	Breweries.....	—	4	1	f	D	D	D	D	D	D	D	D	
313	Textile mills.....	1	10	3		322	6 309	291	548	4 849	10 784	6 509	16 934	D
314	Textile product mills.....	1	41	8		495	9 149	391	636	5 335	16 744	17 277	33 519	D
3149	Other textile product mills..	3	25	6		280	6 043	218	357	3 375	9 071	8 947	18 177	D
315	Apparel mfg.....	1	19	6		377	5 424	322	590	3 569	14 345	9 844	21 803	1 281
321	Wood product mfg.....	—	39	15		976	22 662	767	1 565	15 914	64 087	141 241	204 437	4 552
3211	Sawmills & wood preservation.....	—	7	4		349	8 810	303	713	6 964	32 205	55 356	87 867	2 456
32111	Sawmills & wood preservation.....	—	7	4		349	8 810	303	713	6 964	32 205	55 356	87 867	2 456
321113	Sawmills.....	—	5	4	e		D	D	D	D	D	D	D	D
3212	Veneer, plywood, & engineered wood product mfg.....	—	8	4		280	7 506	200	373	4 196	17 812	62 892	79 578	699
32121	Veneer, plywood, & engineered wood product mfg.....	—	8	4		280	7 506	200	373	4 196	17 812	62 892	79 578	699
3219	Other wood product mfg... ..	2	24	7		347	6 346	264	479	4 754	14 070	22 993	36 992	1 397
322	Paper mfg.....	3	11	8		989	29 482	684	1 323	17 353	88 372	100 787	187 104	5 907
3222	Converted paper product mfg.....	3	11	8		989	29 482	684	1 323	17 353	88 372	100 787	187 104	5 907
32221	Paperboard container mfg.....	5	7	5	f		D	D	D	D	D	D	D	D
322212	Folding paperboard box mfg.....	9	1	1	e		D	D	D	D	D	D	D	D
32229	Other converted paper product mfg.....	—	2	2	e		D	D	D	D	D	D	D	D
322299	All other converted paper product mfg... ..	—	2	2	e		D	D	D	D	D	D	D	D
323	Printing & related support activities.....	4	152	18		2 113	44 671	1 173	2 163	25 716	96 726	85 937	182 676	16 452
3231	Printing & related support activities.....	4	152	18		2 113	44 671	1 173	2 163	25 716	96 726	85 937	182 676	16 452
32311	Printing.....	4	143	18		2 065	43 863	1 136	2 120	25 138	95 152	85 560	180 725	D
323110	Commercial lithographic printing..	5	73	9		1 311	26 811	625	1 207	14 721	59 625	46 836	106 403	12 128
325	Chemical mfg.....	—	35	9		758	29 387	462	859	16 062	59 891	277 496	332 291	11 577
326	Plastics & rubber products mfg.....	2	38	17		1 290	35 069	988	1 806	20 680	80 356	105 565	185 525	4 767
3261	Plastics product mfg.....	2	28	14		980	26 386	768	1 376	14 708	52 965	69 836	122 880	3 565
32611	Unsupported plastics film, sheet, & bag mfg... ..	2	6	4		315	10 397	236	388	4 903	9 519	15 432	25 009	872
32619	Other plastics product mfg.....	2	16	7		459	12 370	343	646	6 757	32 826	45 631	78 661	1 742
326199	All other plastics product mfg.....	1	13	6		413	11 484	304	582	6 104	30 647	43 844	74 688	1 655
3262	Rubber product mfg.....	—	10	3		310	8 683	220	430	5 972	27 391	35 729	62 645	1 202
32629	Other rubber product mfg.....	—	6	3		290	8 343	203	411	5 702	26 626	34 864	61 009	1 149
326299	All other rubber product mfg.....	—	4	3	e		D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg.....	1	58	23		2 105	65 600	1 459	3 119	39 482	191 352	190 145	379 128	19 471
3271	Clay product & refractory mfg.....	5	5	2	e		D	D	D	D	D	D	D	D
3272	Glass & glass product mfg.....	—	9	3		536	16 584	417	929	11 137	52 576	45 159	95 681	3 399
32721	Glass & glass product mfg.....	—	9	3		536	16 584	417	929	11 137	52 576	45 159	95 681	3 399
327215	Glass product mfg made of purchased glass.....	—	7	2	e		D	D	D	D	D	D	D	D
3273	Cement & concrete product mfg.....	2	36	14		738	22 941	552	1 160	14 989	64 191	57 119	121 399	8 249
32732	Ready-mix concrete mfg.....	1	17	7		391	13 539	304	619	9 266	38 614	38 983	77 496	7 349
327320	Ready-mix concrete mfg.....	1	17	7		391	13 539	304	619	9 266	38 614	38 983	77 496	7 349

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	NORFOLK-VIRGINIA BEACH-NEWPORT NEWS, VA-NC MSA—Con.												
	Manufacturing—Con.												
327	Nonmetallic mineral product mfg—Con.												
3279	Other nonmetallic mineral product mfg	1	7	3	370	11 496	255	512	6 440	32 825	32 216	64 682	1 954
32791	Abrasive product mfg	—	1	1	e	D	D	D	D	D	D	D	D
327910	Abrasive product mfg	—	1	1	e	D	D	D	D	D	D	D	D
331	Primary metal mfg	—	13	3	1 435	43 278	1 172	2 088	31 173	133 285	96 862	223 533	5 790
3315	Foundries	—	8	2	g	D	D	D	D	D	D	D	D
33152	Nonferrous metal foundries	—	4	1	g	D	D	D	D	D	D	D	D
331528	Other nonferrous foundries (except die-casting)	—	2	1	g	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	—	155	40	2 910	89 922	2 224	4 052	60 087	212 332	219 517	417 714	18 788
3323	Architectural & structural metals mfg	1	53	19	1 315	38 195	975	1 771	22 346	69 236	71 923	138 311	6 394
33231	Plate work & fabricated structural product mfg	1	24	13	822	23 264	597	1 028	13 083	40 722	52 063	90 913	1 516
332312	Fabricated structural metal mfg	1	15	8	439	11 606	308	505	6 296	23 651	34 931	58 363	512 968
332313	Plate work mfg	—	6	4	e	D	D	D	D	D	D	D	D
33232	Ornamental & architectural metal products mfg	1	29	6	493	14 931	378	743	9 263	28 514	19 860	47 398	4 878
332322	Sheet metal work mfg	—	21	6	463	14 284	357	709	8 888	27 229	18 432	44 676	4 819
3324	Boiler, tank, & shipping container mfg	—	6	4	375	18 959	315	663	15 402	64 022	121 689	177 863	D
33243	Metal can, box, & other metal container (light gauge) mfg	—	3	3	e	D	D	D	D	D	D	D	D
332431	Metal can mfg	—	2	2	e	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	61	11	821	20 275	621	1 023	14 133	50 265	11 026	60 608	3 668
33271	Machine shops	2	56	7	463	13 317	346	620	8 881	26 664	7 835	33 918	1 711
332710	Machine shops	2	56	7	463	13 317	346	620	8 881	26 664	7 835	33 918	1 711
33272	Turned product & screw, nut, & bolt mfg	—	5	4	358	6 958	275	403	5 252	23 601	3 191	26 690	1 957
333	Machinery mfg	—	67	31	4 263	143 146	2 731	5 423	73 880	361 506	642 196	990 931	41 638
3331	Agriculture, construction, & mining machinery mfg	—	7	4	1 153	37 015	765	1 438	21 293	140 601	285 268	427 670	11 066
33311	Agricultural implement mfg	—	5	3	f	D	D	D	D	D	D	D	D
333112	Lawn & garden tractor & home lawn & garden equipment mfg	—	1	1	f	D	D	D	D	D	D	D	D
33312	Construction machinery mfg	—	1	1	e	D	D	D	D	D	D	D	D
333120	Construction machinery mfg	—	1	1	e	D	D	D	D	D	D	D	D
3332	Industrial machinery mfg	—	6	2	264	9 773	184	380	6 017	15 794	26 546	48 199	D
33329	Other industrial machinery mfg	—	6	2	264	9 773	184	380	6 017	15 794	26 546	48 199	D
3333	Commercial & service industry machinery mfg	—	10	5	578	24 093	442	937	12 333	33 776	113 570	146 420	D
33331	Commercial & service industry machinery mfg	—	10	5	578	24 093	442	937	12 333	33 776	113 570	146 420	D
333315	Photographic & photocopying equipment mfg	—	4	1	e	D	D	D	D	D	D	D	D
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	7	7	2	e	D	D	D	D	D	D	D	634
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	7	7	2	e	D	D	D	D	D	D	D	634
3335	Metalworking machinery mfg	1	13	7	610	22 127	397	889	11 982	48 354	20 849	65 713	5 353
33351	Metalworking machinery mfg	1	13	7	610	22 127	397	889	11 982	48 354	20 849	65 713	5 353
333514	Special die & tool, die set, jig, & fixture mfg	2	6	3	328	11 008	207	449	5 863	20 833	8 203	28 980	3 042

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	NORFOLK-VIRGINIA BEACH-NEWPORT NEWS, VA-NC MSA—Con.												
	Manufacturing—Con.												
333	Machinery mfg—Con.												
3336	Engine, turbine, & power transmission equipment mfg	—	4	1	e	D	D	D	D	D	D	D	D
33361	Engine, turbine, & power transmission equipment mfg	—	4	1	e	D	D	D	D	D	D	D	D
333612	Speed changer, industrial high-speed drive, & gear mfg	—	1	1	e	D	D	D	D	D	D	D	D
3339	Other general-purpose machinery mfg	1	20	10	1 027	34 580	619	1 177	15 812	68 326	103 033	171 068	3 916
33391	Pump & compressor mfg	—	7	3	e	D	D	D	D	D	D	D	D
333911	Pump & pumping equipment mfg	—	4	1	e	D	D	D	D	D	D	D	D
33399	All other general-purpose machinery mfg	2	7	4	359	10 629	227	380	4 999	20 040	16 226	36 744	877
334	Computer & electronic product mfg	—	45	13	4 869	128 393	3 468	6 706	77 337	282 137	973 818	1 254 808	44 027
3341	Computer & peripheral equipment mfg	—	3	3	h	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg	—	3	3	h	D	D	D	D	D	D	D	D
334111	Electronic computer mfg	—	1	1	f	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment mfg	—	2	2	g	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	1	12	1	e	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	1	12	1	e	D	D	D	D	D	D	D	D
334415	Electronic resistor mfg	—	1	1	e	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	2	17	6	961	23 818	607	1 326	13 520	44 128	27 888	72 747	1 892
33451	Navigational, measuring, medical, & control instruments mfg	2	17	6	961	23 818	607	1 326	13 520	44 128	27 888	72 747	1 892
334511	Search, detection, navigation, & guidance instrument mfg	—	4	3	f	D	D	D	D	D	D	D	348
335	Electrical equipment, appliance, & component mfg	1	18	7	773	23 366	501	985	10 630	59 358	89 713	149 807	4 300
3353	Electrical equipment mfg ..	2	10	3	479	17 082	253	544	6 183	44 982	33 105	78 809	2 739
33531	Electrical equipment mfg	2	10	3	479	17 082	253	544	6 183	44 982	33 105	78 809	2 739
335314	Relay & industrial control mfg	—	6	2	399	14 331	200	399	4 148	37 497	25 864	63 804	2 407
3359	Other electrical equipment & component mfg	—	6	3	e	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	—	57	27	26 251	1 036 305	21 753	45 033	741 901	3 868 203	3 551 830	7 426 715	122 383
3361	Motor vehicle mfg	—	2	1	g	D	D	D	D	D	D	D	D
33611	Automobile & light duty motor vehicle mfg	—	2	1	g	D	D	D	D	D	D	D	D
336112	Light truck & utility vehicle mfg	—	2	1	g	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	—	14	5	g	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine & engine parts mfg	—	5	2	g	D	D	D	D	D	D	D	D
336312	Gasoline engine & engine parts mfg	—	5	2	g	D	D	D	D	D	D	D	D
33632	Motor vehicle electrical & electronic equipment mfg	1	5	3	e	D	D	D	D	D	D	D	D
3366	Ship & boat building	—	36	20	j	D	D	D	D	D	D	D	43 955
33661	Ship & boat building	—	36	20	j	D	D	D	D	D	D	D	43 955
336611	Ship building & repairing	—	28	17	j	D	D	D	D	D	D	D	D

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	NORFOLK-VIRGINIA BEACH-NEWPORT NEWS, VA-NC MSA—Con.												
	Manufacturing—Con.												
337	Furniture & related product mfg	4	78	7	728	15 875	598	1 038	10 675	28 640	24 877	53 596	1 412
3371	Household & institutional furniture & kitchen cabinet mfg	4	62	5	f	D	D	D	D	D	D	D	D
33711	Wood kitchen cabinet & counter top mfg	3	43	4	372	8 653	305	604	6 012	14 622	10 783	25 446	D
337110	Wood kitchen cabinet & counter top mfg	3	43	4	372	8 653	305	604	6 012	14 622	10 783	25 446	D
339	Miscellaneous mfg	1	105	20	2 232	54 686	1 706	2 982	31 728	112 877	78 229	189 226	5 269
3391	Medical equipment & supplies mfg	3	44	7	551	16 237	360	667	8 331	22 216	11 194	32 719	3 342
33911	Medical equipment & supplies mfg	3	44	7	551	16 237	360	667	8 331	22 216	11 194	32 719	3 342
3399	Other miscellaneous mfg	—	61	13	1 681	38 449	1 346	2 315	23 397	90 661	67 035	156 507	1 927
33995	Sign mfg	2	28	4	322	8 872	221	432	4 847	15 317	9 900	24 625	322
339950	Sign mfg	2	28	4	322	8 872	221	432	4 847	15 317	9 900	24 625	322
33999	All other miscellaneous mfg	—	11	6	1 108	25 058	946	1 595	15 559	65 415	47 087	111 144	1 362
339991	Gasket, packing, & sealing device mfg	—	5	4	e	D	D	D	D	D	D	D	D
339999	All other miscellaneous mfg	—	6	2	f	D	D	D	D	D	D	D	D
	RICHMOND-PETERSBURG, VA MSA												
31-33	Manufacturing	—	1 004	345	54 752	2 122 583	38 786	78 613	1 296 970	12 539 480	7 108 573	19 724 479	1 082 864
311	Food mfg	—	67	23	4 238	132 364	3 294	6 559	94 826	715 853	574 905	1 289 170	45 339
3115	Dairy product mfg	—	2	2	e	D	D	D	D	D	D	D	D
3116	Meat product mfg	—	8	5	1 243	25 614	1 143	2 168	19 836	47 716	169 487	218 518	7 951
31161	Animal slaughtering & processing	—	8	5	1 243	25 614	1 143	2 168	19 836	47 716	169 487	218 518	7 951
311615	Poultry processing	—	2	1	f	D	D	D	D	D	D	D	D
3118	Bakeries & tortilla mfg	—	40	8	2 030	77 303	1 391	2 773	53 973	507 727	162 455	667 931	28 192
31181	Bread & bakery product mfg	—	37	6	g	D	D	D	D	D	D	D	D
311812	Commercial bakeries	—	10	5	f	D	D	D	D	D	D	D	D
31182	Cookie, cracker, & pasta mfg	—	3	2	g	D	D	D	D	D	D	D	D
311821	Cookie & cracker mfg	—	2	2	g	D	D	D	D	D	D	D	D
3119	Other food mfg	—	5	5	e	D	D	D	D	D	D	D	3 186
31199	All other food mfg	—	2	2	e	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	—	16	13	i	D	D	D	D	D	D	D	D
3122	Tobacco mfg	—	10	10	i	D	D	D	D	D	D	D	D
31221	Tobacco stemming & redrying	—	3	3	e	D	D	D	D	D	D	D	D
312210	Tobacco stemming & redrying	—	3	3	e	D	D	D	D	D	D	D	D
31222	Tobacco product mfg	—	7	7	i	D	D	D	D	D	D	D	D
312221	Cigarette mfg	—	2	2	i	D	D	D	D	D	D	D	D
312229	Other tobacco product mfg	—	5	5	g	D	D	D	D	D	D	D	D
313	Textile mills	4	6	4	e	D	D	D	D	D	D	D	1 183
314	Textile product mills	1	28	7	e	D	D	D	D	D	D	D	D
315	Apparel mfg	3	17	5	f	D	D	D	D	D	D	D	451
3159	Apparel accessories & other apparel mfg	7	7	3	e	D	D	D	D	D	D	D	D
31599	Apparel accessories & other apparel mfg	7	7	3	e	D	D	D	D	D	D	D	D
315991	Hat, cap, & millinery mfg	7	4	3	e	D	D	D	D	D	D	D	D
321	Wood product mfg	3	55	21	1 311	29 651	1 014	1 855	18 873	77 114	80 449	157 039	5 364
3211	Sawmills & wood preservation	2	16	6	285	7 888	231	465	5 627	19 985	27 820	47 966	2 417
32111	Sawmills & wood preservation	2	16	6	285	7 888	231	465	5 627	19 985	27 820	47 966	2 417
321113	Sawmills	2	15	6	e	D	D	D	D	D	D	D	D
3219	Other wood product mfg	3	36	13	945	19 847	735	1 293	12 359	52 454	48 069	99 895	2 740
32191	Millwork	1	18	5	350	8 467	250	473	4 869	30 853	24 606	54 963	1 179
32192	Wood container & pallet mfg	6	11	7	491	8 905	419	687	6 193	17 990	18 186	35 999	1 077
321920	Wood container & pallet mfg	6	11	7	491	8 905	419	687	6 193	17 990	18 186	35 999	1 077

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31-33	RICHMOND-PETERSBURG, VA MSA—Con.												
	Manufacturing—Con.												
322	Paper mfg	-	43	35	5 513	213 542	4 300	9 941	148 569	511 842	832 054	1 340 683	63 510
3221	Pulp, paper, & paperboard mills	-	5	5	975	46 838	751	1 715	33 293	131 875	184 819	316 472	D
32212	Paper mills	-	2	2	e	D	D	D	D	D	D	D	D
322122	Newsprint mills	-	1	1	e	D	D	D	D	D	D	D	D
32213	Paperboard mills	-	3	3	f	D	D	D	D	D	D	D	D
322130	Paperboard mills	-	3	3	f	D	D	D	D	D	D	D	D
3222	Converted paper product mfg	-	38	30	4 538	166 704	3 549	8 226	115 276	379 967	647 235	1 024 211	D
32221	Paperboard container mfg	-	22	17	2 836	107 795	2 195	5 061	74 289	232 107	408 022	640 558	26 170
322211	Corrugated & solid fiber box mfg	-	12	9	1 144	41 153	820	1 840	24 885	94 401	165 039	259 672	D
322212	Folding paperboard box mfg	-	7	6	1 591	63 639	1 296	3 068	47 075	131 227	230 789	362 285	18 307
32222	Paper bag & coated & treated paper mfg	-	10	8	g	D	D	D	D	D	D	D	D
322224	Uncoated paper & multiwall bag mfg	2	3	2	359	9 883	326	821	8 670	20 993	40 494	62 566	832
322225	Laminated aluminum foil mfg for flexible packaging uses	-	1	1	e	D	D	D	D	D	D	D	D
32223	Stationery product mfg	-	3	2	e	D	D	D	D	D	D	D	D
322232	Envelope mfg	-	3	2	e	D	D	D	D	D	D	D	D
323	Printing & related support activities	-	164	46	4 313	139 810	3 291	6 003	96 282	299 082	231 028	527 017	22 201
3231	Printing & related support activities	-	164	46	4 313	139 810	3 291	6 003	96 282	299 082	231 028	527 017	22 201
32311	Printing	-	140	38	3 909	129 146	2 973	5 362	88 972	278 114	227 180	502 143	D
323110	Commercial lithographic printing	1	68	18	2 116	73 687	1 575	2 790	47 567	139 231	79 981	219 015	12 886
323111	Commercial gravure printing	-	5	4	692	25 053	574	1 091	21 579	58 239	102 292	158 546	D
323116	Manifold business form printing	1	6	5	408	11 726	314	551	8 520	46 153	17 120	62 621	1 079
32312	Support activities for printing	2	24	8	404	10 664	318	641	7 310	20 968	3 848	24 874	D
325	Chemical mfg	-	50	28	7 882	362 876	5 075	11 398	206 240	2 041 710	1 200 150	3 247 026	237 890
3251	Basic chemical mfg	-	13	6	1 631	83 388	1 255	2 651	54 177	454 069	412 020	848 781	53 852
32519	Other basic organic chemical mfg	-	3	3	g	D	D	D	D	D	D	D	D
325199	All other basic organic chemical mfg	-	3	3	g	D	D	D	D	D	D	D	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	-	6	4	h	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg	-	3	3	h	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg	-	3	3	h	D	D	D	D	D	D	D	D
3254	Pharmaceutical & medicine mfg	-	2	2	g	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	-	2	2	g	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	-	1	1	f	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, & toilet preparation mfg	1	3	1	e	D	D	D	D	D	D	D	D
3259	Other chemical product mfg	5	19	10	457	16 649	292	621	8 944	44 347	47 623	91 943	2 517
326	Plastics & rubber products mfg	-	28	15	2 481	77 865	1 994	3 873	53 519	429 479	185 997	608 324	27 343
3261	Plastics product mfg	1	24	14	g	D	D	D	D	D	D	D	D
32611	Unsupported plastics film, sheet, & bag mfg	1	5	2	f	D	D	D	D	D	D	D	D
326113	Unsupported plastics film & sheet (except packaging) mfg	-	4	1	f	D	D	D	D	D	D	D	D
32615	Urethane & other foam product (except polystyrene) mfg	-	2	2	e	D	D	D	D	D	D	D	D
326150	Urethane & other foam product (except polystyrene) mfg	-	2	2	e	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	1	11	8	510	12 132	408	806	9 031	34 879	31 470	66 649	3 310
326199	All other plastics product mfg	-	8	5	e	D	D	D	D	D	D	D	D

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31-33	RICHMOND-PETERSBURG, VA MSA—Con.												
	Manufacturing—Con.												
326	Plastics & rubber products mfg—Con.												
3262	Rubber product mfg	-	4	1	f	D	D	D	D	D	D	D	D
32629	Other rubber product mfg	-	2	1	f	D	D	D	D	D	D	D	D
326299	All other rubber product mfg	-	2	1	f	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	2	44	17	g	D	D	D	D	D	D	D	7 448
3273	Cement & concrete product mfg	2	32	14	g	D	D	D	D	D	D	D	5 396
32739	Other concrete product mfg	5	10	6	f	D	D	D	D	D	D	D	2 340
327390	Other concrete product mfg	5	10	6	f	D	D	D	D	D	D	D	2 340
331	Primary metal mfg	-	8	6	1 543	59 124	1 260	2 833	45 610	191 428	561 980	761 055	14 148
3313	Alumina & aluminum production & processing ..	-	4	4	g	D	D	D	D	D	D	D	D
33131	Alumina & aluminum production & processing	-	4	4	g	D	D	D	D	D	D	D	D
331315	Aluminum sheet, plate, & foil mfg	-	2	2	f	D	D	D	D	D	D	D	D
331316	Aluminum extruded product mfg	-	1	1	e	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	149	41	3 873	122 755	2 915	5 930	77 288	247 759	213 623	461 247	15 959
3323	Architectural & structural metals mfg	1	35	15	685	19 943	470	868	11 670	38 652	53 637	92 177	2 352
33232	Ornamental & architectural metal products mfg	1	22	11	438	12 357	302	520	7 074	24 748	26 249	50 884	1 725
3324	Boiler, tank, & shipping container mfg	-	5	5	450	17 833	276	483	8 644	30 276	58 041	91 473	3 804
3325	Hardware mfg	-	2	1	e	D	D	D	D	D	D	D	D
33251	Hardware mfg	-	2	1	e	D	D	D	D	D	D	D	D
332510	Hardware mfg	-	2	1	e	D	D	D	D	D	D	D	D
3326	Spring & wire product mfg .	-	3	1	e	D	D	D	D	D	D	D	D
33261	Spring & wire product mfg	-	3	1	e	D	D	D	D	D	D	D	D
332618	Other fabricated wire product mfg	-	3	1	e	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	2	74	12	1 045	37 194	805	1 522	24 945	61 199	24 669	86 494	D
33271	Machine shops	1	71	11	980	35 640	753	1 445	23 814	58 735	22 460	81 869	3 902
332710	Machine shops	1	71	11	980	35 640	753	1 445	23 814	58 735	22 460	81 869	3 902
3329	Other fabricated metal product mfg	-	6	3	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg	-	6	3	f	D	D	D	D	D	D	D	D
332991	Ball & roller bearing mfg	-	1	1	f	D	D	D	D	D	D	D	D
333	Machinery mfg	-	78	29	3 001	115 303	2 009	4 193	61 165	203 896	256 674	525 357	13 305
3332	Industrial machinery mfg ..	-	28	15	1 216	51 710	754	1 620	27 445	132 798	131 901	267 977	7 066
33329	Other industrial machinery mfg	-	26	14	g	D	D	D	D	D	D	D	D
333298	All other industrial machinery mfg	-	13	9	674	27 932	404	848	14 099	91 073	99 972	193 451	3 852
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	-	7	3	904	31 447	693	1 511	16 275	49 165	69 218	121 091	4 104
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg .	-	7	3	904	31 447	693	1 511	16 275	49 165	69 218	121 091	4 104
333415	AC & warm air heating & commercial/ industrial refrig equip mfg	-	3	3	885	30 924	680	1 489	16 007	47 998	68 290	118 965	D
3339	Other general-purpose machinery mfg	1	23	7	499	19 095	308	624	10 778	S	S	77 976	1 606
33399	All other general-purpose machinery mfg	1	17	5	288	10 831	178	350	5 524	S	S	46 957	863

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31-33	RICHMOND-PETERSBURG, VA MSA—Con.												
	Manufacturing—Con.												
334	Computer & electronic product mfg	-	20	6	2 807	106 864	1 858	3 461	77 876	317 970	99 944	422 065	D
3344	Semiconductor & other electronic component mfg	-	9	6	2 769	105 953	1 842	3 433	77 415	316 016	97 996	418 116	D
33441	Semiconductor & other electronic component mfg	-	9	6	2 769	105 953	1 842	3 433	77 415	316 016	97 996	418 116	D
334412	Bare printed circuit board mfg	-	1	1	g	D	D	D	D	D	D	D	D
334413	Semiconductor & related device mfg	-	5	3	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	2	18	7	e	D	D	D	D	D	D	D	809
336	Transportation equipment mfg	2	22	2	e	D	D	D	D	D	D	D	779
337	Furniture & related product mfg	4	88	19	2 328	58 201	1 821	3 841	42 190	138 660	113 001	249 445	15 548
3371	Household & institutional furniture & kitchen cabinet mfg	8	64	7	982	21 617	792	1 476	15 942	44 430	35 092	78 242	1 827
33711	Wood kitchen cabinet & counter top mfg	8	41	3	772	17 280	610	1 150	12 707	36 594	27 119	62 445	1 460
337110	Wood kitchen cabinet & counter top mfg	8	41	3	772	17 280	610	1 150	12 707	36 594	27 119	62 445	1 460
3372	Office furniture (including fixtures) mfg	2	14	8	1 029	29 480	787	1 836	21 055	75 021	57 903	132 202	10 983
33721	Office furniture (including fixtures) mfg	2	14	8	1 029	29 480	787	1 836	21 055	75 021	57 903	132 202	10 983
337214	Office furniture (except wood) mfg	-	2	2	f	D	D	D	D	D	D	D	D
337215	Showcase, partition, shelving, & locker mfg	6	6	4	325	8 927	251	551	5 389	20 571	15 936	36 231	D
3379	Other furniture related product mfg	7	10	4	317	7 104	242	529	5 193	19 209	20 006	39 001	2 738
339	Miscellaneous mfg	-	93	18	2 707	79 427	1 802	3 589	42 535	153 036	227 865	391 801	8 389
3391	Medical equipment & supplies mfg	-	39	5	1 198	28 988	762	1 513	16 904	61 745	90 553	150 080	3 495
33911	Medical equipment & supplies mfg	-	39	5	1 198	28 988	762	1 513	16 904	61 745	90 553	150 080	3 495
339113	Surgical appliance & supplies mfg	-	7	3	659	15 776	413	895	11 328	33 471	76 461	107 355	1 103
339115	Ophthalmic goods mfg	-	2	1	e	D	D	D	D	D	D	D	D
3399	Other miscellaneous mfg	-	54	13	1 509	50 439	1 040	2 076	25 631	91 291	137 312	241 721	4 894
33992	Sporting & athletic goods mfg	-	3	2	e	D	D	D	D	D	D	D	D
339920	Sporting & athletic goods mfg	-	3	2	e	D	D	D	D	D	D	D	D
33999	All other miscellaneous mfg	-	15	5	689	24 147	551	1 061	15 026	45 019	60 745	107 007	1 494
339999	All other miscellaneous mfg	-	8	2	f	D	D	D	D	D	D	D	D
	ROANOKE, VA MSA												
31-33	Manufacturing	-	312	120	19 839	592 159	13 582	27 110	351 329	2 166 790	1 865 143	4 001 001	117 145
311	Food mfg	-	13	8	877	22 031	473	1 078	11 520	49 130	129 099	179 524	4 876
3116	Meat product mfg	-	2	2	e	D	D	D	D	D	D	D	D
31161	Animal slaughtering & processing	-	2	2	e	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	-	1	1	e	D	D	D	D	D	D	D	D
3118	Bakeries & tortilla mfg	-	5	2	e	D	D	D	D	D	D	D	D
31181	Bread & bakery product mfg	-	5	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 & tobacco product mfg	-	3	3	e	D	D	D	D	D	D	D	D
3121	Beverage mfg	-	3	3	e	D	D	D	D	D	D	D	D
31211	Soft drink & ice mfg	-	3	3	e	D	D	D	D	D	D	D	D
312111	Soft drink mfg	-	2	2	e	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	ROANOKE, VA MSA—Con.												
31-33	Manufacturing—Con.												
313	Textile mills	-	5	3	f	D	D	D	D	D	D	D	D
3132	Fabric mills	-	2	1	f	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills	-	2	1	f	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	-	2	1	f	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	-	3	2	e	D	D	D	D	D	D	D	D
31331	Textile & fabric finishing mills	-	3	2	e	D	D	D	D	D	D	D	D
313312	Textile & fabric finishing mills	-	1	1	e	D	D	D	D	D	D	D	D
315	Apparel mfg	-	13	9	1 719	29 941	1 218	2 461	21 774	119 660	184 961	275 204	3 421
3152	Cut & sew apparel mfg	-	12	9	g	D	D	D	D	D	D	D	D
31521	Cut & sew apparel contractors	-	5	4	448	7 590	387	635	4 678	11 686	1 065	12 714	D
315212	Women's, girls', & infants' cut & sew apparel contractors ..	-	5	4	448	7 590	387	635	4 678	11 686	1 065	12 714	D
31523	Women's & girls' cut & sew apparel mfg	-	3	2	f	D	D	D	D	D	D	D	D
315233	Women's & girls' cut & sew dress mfg	-	1	1	f	D	D	D	D	D	D	D	D
315239	Women's & girls' cut & sew other outerwear mfg	-	1	1	e	D	D	D	D	D	D	D	D
321	Wood product mfg	-	6	4	355	9 345	245	532	5 454	20 991	28 042	48 888	824
322	Paper mfg	-	9	6	591	17 356	423	733	9 353	39 426	29 881	69 271	4 684
3222	Converted paper product mfg	-	9	6	591	17 356	423	733	9 353	39 426	29 881	69 271	4 684
32221	Paperboard container mfg	-	5	4	e	D	D	D	D	D	D	D	D
32223	Stationery product mfg ..	-	3	2	e	D	D	D	D	D	D	D	D
322232	Envelope mfg	-	2	2	e	D	D	D	D	D	D	D	D
323	Printing & related support activities	1	37	6	673	20 213	449	889	11 541	43 118	20 313	63 511	4 006
3231	Printing & related support activities	1	37	6	673	20 213	449	889	11 541	43 118	20 313	63 511	4 006
32311	Printing	1	35	6	f	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing ..	-	13	3	254	5 935	209	365	3 501	15 494	6 912	22 401	716
325	Chemical mfg	-	15	5	1 013	30 328	688	1 088	12 385	657 139	228 397	884 563	3 824
3256	Soap, cleaning compound, & toilet preparation mfg ..	-	5	2	f	D	D	D	D	D	D	D	2 687
32562	Toilet preparation mfg	-	1	1	f	D	D	D	D	D	D	D	D
325620	Toilet preparation mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	15	10	1 837	63 712	1 377	2 669	42 028	157 913	115 601	274 451	23 146
3261	Plastics product mfg	-	12	8	f	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	-	10	7	f	D	D	D	D	D	D	D	D
326199	All other plastics product mfg	-	9	6	f	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	3	2	g	D	D	D	D	D	D	D	D
32621	Tire mfg	-	1	1	f	D	D	D	D	D	D	D	D
326211	Tire mfg (except retreading)	-	1	1	f	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	-	15	10	958	29 644	700	1 531	19 790	71 829	77 573	154 259	8 382
3273	Cement & concrete product mfg	-	10	7	497	16 411	372	797	10 525	57 099	56 436	113 890	4 585
331	Primary metal mfg	-	4	4	f	D	D	D	D	D	D	D	D
3311	Iron & steel mills & ferroalloy mfg	-	1	1	e	D	D	D	D	D	D	D	D
33111	Iron & steel mills & ferroalloy mfg	-	1	1	e	D	D	D	D	D	D	D	D
331111	Iron & steel mills	-	1	1	e	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	63	19	1 895	60 765	1 312	2 568	35 234	118 624	109 408	231 204	6 468
3323	Architectural & structural metals mfg	-	13	8	720	22 867	550	1 074	15 052	46 184	62 006	110 476	2 382
33231	Plate work & fabricated structural product mfg ..	-	9	6	586	18 938	449	880	12 702	37 159	55 119	94 564	1 945
332312	Fabricated structural metal mfg	-	7	5	e	D	D	D	D	D	D	D	D
3325	Hardware mfg	-	1	1	e	D	D	D	D	D	D	D	D
33251	Hardware mfg	-	1	1	e	D	D	D	D	D	D	D	D
332510	Hardware mfg	-	1	1	e	D	D	D	D	D	D	D	D

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	ROANOKE, VA MSA—Con.												
31-33	Manufacturing—Con.												
332	Fabricated metal product mfg—Con.												
3327	Machine shops, turned product, & screw, nut, & bolt mfg	2	33	7	e	D	D	D	D	D	D	D	D
33271	Machine shops	2	32	6	389	10 738	304	533	7 237	18 897	7 084	25 887	1 407
332710	Machine shops	2	32	6	389	10 738	304	533	7 237	18 897	7 084	25 887	1 407
3329	Other fabricated metal product mfg	—	9	2	274	9 873	195	438	5 890	14 901	24 167	40 097	D
33299	All other fabricated metal product mfg	—	9	2	274	9 873	195	438	5 890	14 901	24 167	40 097	D
333	Machinery mfg	—	19	8	1 847	66 039	1 147	2 529	33 229	122 130	187 574	305 428	16 169
3331	Agriculture, construction, & mining machinery mfg.	—	1	1	e	D	D	D	D	D	D	D	D
33313	Mining & oil & gas field machinery mfg	—	1	1	e	D	D	D	D	D	D	D	D
333132	Oil & gas field machinery & equipment mfg	—	1	1	e	D	D	D	D	D	D	D	D
3332	Industrial machinery mfg ..	—	4	4	408	11 209	281	616	6 704	31 863	19 349	47 885	900
3333	Commercial & service industry machinery mfg ..	—	3	1	f	D	D	D	D	D	D	D	D
33331	Commercial & service industry machinery mfg	—	3	1	f	D	D	D	D	D	D	D	D
333314	Optical instrument & lens mfg	—	2	1	f	D	D	D	D	D	D	D	D
3339	Other general-purpose machinery mfg	—	6	1	316	9 754	205	426	5 953	15 644	10 541	25 873	D
33399	All other general-purpose machinery mfg	—	3	1	e	D	D	D	D	D	D	D	D
333999	All other miscellaneous general-purpose machinery mfg	—	2	1	e	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	—	15	6	1 384	39 710	1 093	2 121	28 871	189 365	75 665	265 028	D
3344	Semiconductor & other electronic component mfg	—	7	3	f	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	—	7	3	f	D	D	D	D	D	D	D	D
334417	Electronic connector mfg	—	4	2	e	D	D	D	D	D	D	D	D
334419	Other electronic component mfg	—	2	1	e	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	—	12	4	2 541	85 701	1 203	2 369	38 811	298 317	205 484	500 323	10 353
3353	Electrical equipment mfg ..	—	9	2	g	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	—	9	2	g	D	D	D	D	D	D	D	D
335314	Relay & industrial control mfg	—	3	1	g	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	3	10	6	455	11 591	323	535	6 198	21 073	16 636	38 124	780
3363	Motor vehicle parts mfg ...	5	7	5	e	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	—	19	3	1 062	24 318	976	2 033	19 342	49 743	49 447	99 009	1 795
3371	Household & institutional furniture & kitchen cabinet mfg	—	16	3	1 019	23 090	946	1 980	18 584	48 661	47 446	95 924	D
33712	Household & institutional furniture mfg	—	8	2	f	D	D	D	D	D	D	D	1 662
337121	Upholstered household furniture mfg	—	2	1	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	—	4	1	e	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	3	35	6	474	11 820	352	597	6 963	29 957	47 519	79 799	2 180
3399	Other miscellaneous mfg ..	—	16	4	327	8 407	243	438	4 627	19 941	35 419	57 588	1 359

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	WASHINGTON-BALTIMORE, DC-MD-VA-WV CMSA												
	Manufacturing	1	4 979	1 397	180 692	6 729 603	118 375	237 123	3 628 537	20 589 409	18 635 215	39 149 042	1 520 154
	Washington-Baltimore, DC-MD-VA-WV CMSA (DC Part)	2	200	35	2 858	101 108	1 926	3 727	60 863	170 849	149 315	320 234	9 832
	Washington-Baltimore, DC-MD-VA-WV CMSA (MD Part)	1	3 482	1 039	138 522	5 151 313	90 519	181 710	2 812 641	16 384 506	15 133 093	31 458 684	1 141 079
	Washington-Baltimore, DC-MD-VA-WV CMSA (VA Part)	1	1 233	290	34 047	1 331 917	21 509	43 023	653 950	3 572 191	2 896 360	6 455 589	271 267
	Washington-Baltimore, DC-MD-VA-WV CMSA (WV Part)	-	64	33	5 265	145 265	4 421	8 663	101 083	461 863	456 447	914 535	97 976
311	Food mfg	1	395	119	14 363	402 297	9 987	20 724	254 886	2 475 385	2 408 898	4 889 204	87 187
312	Beverage & tobacco product mfg	2	45	20	g	D	D	D	D	D	D	D	D
313	Textile mills	5	42	10	g	D	D	D	D	D	D	D	D
314	Textile product mills	3	137	14	g	D	D	D	D	D	D	D	D
315	Apparel mfg	2	127	32	h	D	D	D	D	D	D	D	D
316	Leather & allied product mfg	-	11	4	g	D	D	D	D	D	D	D	D
321	Wood product mfg	2	162	53	h	D	D	D	D	D	D	D	D
322	Paper mfg	1	59	35	6 102	179 331	4 877	9 412	120 612	366 779	450 197	813 474	D
323	Printing & related support activities	2	1 198	271	25 327	887 907	19 037	37 200	575 537	1 710 795	1 209 672	2 916 844	318 361
324	Petroleum & coal products mfg	2	41	8	g	D	D	D	D	D	D	D	D
325	Chemical mfg	1	180	77	j	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	1	145	67	8 893	241 984	7 183	13 703	165 876	719 656	674 514	1 384 491	77 269
327	Nonmetallic mineral product mfg	-	236	93	7 410	254 629	5 744	12 146	178 450	724 602	547 963	1 268 145	47 167
331	Primary metal mfg	-	40	18	i	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	1	568	160	14 428	483 853	10 372	20 649	297 759	1 210 189	1 005 732	2 206 004	94 908
333	Machinery mfg	-	188	63	j	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	370	161	k	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	2	61	13	g	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	-	111	44	i	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	1	314	60	6 113	156 809	4 658	8 691	102 649	437 720	287 174	722 749	10 974
339	Miscellaneous mfg	2	549	75	i	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	WASHINGTON—BALTIMORE, DC—MD—VA—WV CMSA—Con.												
	Washington, DC—MD—VA—WV PMSA												
31-33	Manufacturing	1	2 655	668	77 925	2 986 792	48 768	97 608	1 439 124	8 015 259	6 589 096	14 539 682	746 521
	Washington, DC—MD—VA—WV PMSA (DC Part).....	2	200	35	2 858	101 108	1 926	3 727	60 863	170 849	149 315	320 234	9 832
	Washington, DC—MD—VA—WV PMSA (MD Part).....	1	1 158	310	35 755	1 408 502	20 912	42 195	623 228	3 810 356	3 086 974	6 849 324	367 446
	Washington, DC—MD—VA—WV PMSA (VA Part).....	1	1 233	290	34 047	1 331 917	21 509	43 023	653 950	3 572 191	2 896 360	6 455 589	271 267
	Washington, DC—MD—VA—WV PMSA (WV Part).....	—	64	33	5 265	145 265	4 421	8 663	101 083	461 863	456 447	914 535	97 976
311	Food mfg.....	2	201	48	5 551	136 527	3 753	7 387	85 600	520 377	660 882	1 179 566	18 084
3114	Fruit & vegetable preserving & specialty food mfg.....	4	10	4	f	D	D	D	D	D	D	D	D
31141	Frozen food mfg.....	6	5	3	e	D	D	D	D	D	D	D	2 016
311412	Frozen specialty food mfg.....	6	5	3	e	D	D	D	D	D	D	D	2 016
3115	Dairy product mfg.....	1	8	7	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) mfg.....	1	7	6	f	D	D	D	D	D	D	D	D
311511	Fluid milk mfg.....	1	6	6	781	30 632	424	991	16 346	109 542	258 954	366 727	4 173
3116	Meat product mfg.....	3	11	5	708	14 290	604	1 291	9 828	50 038	49 734	99 629	1 181
31161	Animal slaughtering & processing.....	3	11	5	708	14 290	604	1 291	9 828	50 038	49 734	99 629	1 181
311612	Meat processed from carcasses.....	2	6	4	600	12 112	508	1 093	8 024	44 966	37 893	82 709	D
3118	Bakeries & tortilla mfg.....	2	145	27	2 937	69 235	1 853	3 478	43 114	282 674	102 099	385 222	7 189
31181	Bread & bakery product mfg.....	2	138	25	h	D	D	D	D	D	D	D	D
311811	Retail bakeries.....	3	98	8	f	D	D	D	D	D	D	D	D
311812	Commercial bakeries.....	2	37	17	2 018	54 254	1 311	2 656	34 980	239 127	78 442	317 895	5 645
3119	Other food mfg.....	—	15	3	e	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg.....	3	25	10	743	22 825	394	786	8 849	189 214	257 509	446 266	17 608
3121	Beverage mfg.....	3	25	10	743	22 825	394	786	8 849	189 214	257 509	446 266	17 608
31211	Soft drink & ice mfg.....	3	10	6	e	D	D	D	D	D	D	D	D
312111	Soft drink mfg.....	3	5	4	e	D	D	D	D	D	D	D	D
314	Textile product mills.....	2	62	5	510	10 907	346	638	6 093	17 835	14 512	32 266	D
3141	Textile furnishings mills.....	3	41	2	319	6 193	205	370	3 328	10 884	9 841	20 665	D
31412	Curtain & linen mills.....	2	40	2	e	D	D	D	D	D	D	D	D
314121	Curtain & drapery mills.....	2	37	2	305	5 866	193	347	3 088	10 007	8 665	18 612	D
315	Apparel mfg.....	—	63	8	927	16 000	818	1 581	13 482	42 492	50 982	93 368	1 030
3151	Apparel knitting mills.....	—	2	1	e	D	D	D	D	D	D	D	D
31511	Hosiery & sock mills.....	—	1	1	e	D	D	D	D	D	D	D	D
315119	Other hosiery & sock mills.....	—	1	1	e	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg.....	—	30	7	551	10 328	505	1 040	9 014	14 759	27 512	41 910	D
31522	Men's & boys' cut & sew apparel mfg.....	—	3	1	e	D	D	D	D	D	D	D	D
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg.....	—	1	1	e	D	D	D	D	D	D	D	D
321	Wood product mfg.....	1	93	33	2 407	58 850	1 949	3 819	42 816	122 209	245 595	367 315	5 823
3211	Sawmills & wood preservation.....	1	22	8	321	6 522	286	470	5 439	17 793	55 326	72 386	2 176
32111	Sawmills & wood preservation.....	1	22	8	321	6 522	286	470	5 439	17 793	55 326	72 386	2 176
321113	Sawmills.....	2	20	7	e	D	D	D	D	D	D	D	D
3212	Veneer, plywood, & engineered wood product mfg.....	—	12	7	363	9 683	284	594	6 494	14 976	24 525	39 760	622
32121	Veneer, plywood, & engineered wood product mfg.....	—	12	7	363	9 683	284	594	6 494	14 976	24 525	39 760	622
321214	Truss mfg.....	—	8	7	e	D	D	D	D	D	D	D	D
3219	Other wood product mfg.....	1	59	18	1 723	42 645	1 379	2 755	30 883	89 440	165 744	255 169	3 025
32191	Millwork.....	3	35	8	762	21 108	561	1 251	14 782	39 625	51 873	91 621	1 586
321911	Wood window & door mfg.....	—	9	3	404	11 674	305	707	8 661	19 568	22 024	41 468	507
321918	Other millwork (including flooring).....	8	16	4	262	6 849	188	405	4 553	12 826	16 920	30 078	753
32199	All other wood product mfg.....	1	16	7	797	17 991	673	1 201	13 462	42 239	103 626	146 229	1 228
321992	Prefabricated wood building mfg.....	—	8	5	644	15 810	547	1 050	11 911	38 327	100 710	139 270	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	WASHINGTON—BALTIMORE, DC—MD—VA—WV CMSA—Con. Washington, DC—MD—VA—WV PMSA—Con. Manufacturing—Con.												
322	Paper mfg	1	17	6	1 243	25 971	1 131	1 985	19 025	80 975	93 082	169 453	4 086
3222	Converted paper product mfg	1	16	5	g	D	D	D	D	D	D	D	D
32223	Stationery product mfg	1	7	2	f	D	D	D	D	D	D	D	2 567
322233	Stationery, tablet, & related product mfg	—	3	1	f	D	D	D	D	D	D	D	D
323	Printing & related support activities	2	782	169	16 703	610 308	12 561	24 877	402 733	1 129 491	850 123	1 977 662	269 682
3231	Printing & related support activities	2	782	169	16 703	610 308	12 561	24 877	402 733	1 129 491	850 123	1 977 662	269 682
32311	Printing	2	699	152	15 622	568 435	11 714	23 124	375 945	1 051 650	831 116	1 880 944	266 133
323110	Commercial lithographic printing	2	355	100	9 880	386 318	7 275	14 520	253 698	727 071	532 653	1 258 096	183 776
323113	Commercial screen printing	1	29	8	389	10 570	281	488	6 286	23 169	22 150	45 964	D
323114	Quick printing	1	200	16	1 731	49 482	1 232	2 153	29 819	97 094	47 575	144 901	D
323117	Book printing	1	27	17	2 590	88 001	2 126	4 347	61 661	171 887	137 170	308 453	13 462
323119	Other commercial printing	2	51	4	478	20 299	357	744	14 826	17 555	48 842	66 534	D
32312	Support activities for printing	2	83	17	1 081	41 873	847	1 753	26 788	77 841	19 007	96 718	3 549
323121	Tradebinding & related work	—	21	6	422	13 473	333	726	8 473	25 145	8 371	33 589	D
323122	Prepress services	3	62	11	659	28 400	514	1 027	18 315	52 696	10 636	63 129	D
324	Petroleum & coal products mfg	5	19	3	379	13 109	267	575	8 548	41 182	87 793	128 965	3 863
3241	Petroleum & coal products mfg	5	19	3	379	13 109	267	575	8 548	41 182	87 793	128 965	3 863
32412	Asphalt paving, roofing, & saturated materials mfg	5	17	3	e	D	D	D	D	D	D	D	D
325	Chemical mfg	1	67	24	3 431	164 316	1 699	3 574	63 545	636 967	502 431	1 124 729	73 105
3254	Pharmaceutical & medicine mfg	2	25	10	1 750	90 703	803	1 753	29 012	234 076	81 288	308 412	48 573
32541	Pharmaceutical & medicine mfg	2	25	10	1 750	90 703	803	1 753	29 012	234 076	81 288	308 412	48 573
325413	In-vitro diagnostic substance mfg	3	11	7	949	47 149	461	950	15 224	114 295	44 738	154 097	D
325414	Biological product (except diagnostic) mfg	—	4	2	f	D	D	D	D	D	D	D	D
3255	Paint, coating, & adhesive mfg	—	9	4	f	D	D	D	D	D	D	D	D
32551	Paint & coating mfg	—	8	3	f	D	D	D	D	D	D	D	9 819
325510	Paint & coating mfg	—	8	3	f	D	D	D	D	D	D	D	9 819
3259	Other chemical product mfg	1	17	7	535	24 406	319	653	12 810	99 204	67 521	164 377	12 882
32599	All other chemical product & preparation mfg	—	12	4	e	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	2	49	22	2 091	56 794	1 672	3 407	40 217	153 853	163 596	313 605	15 852
3261	Plastics product mfg	2	42	22	2 037	55 500	1 627	3 314	39 250	150 734	159 696	306 589	15 576
32611	Unsupported plastics film, sheet, & bag mfg	5	2	2	e	D	D	D	D	D	D	D	D
326111	Unsupported plastics bag mfg	9	1	1	e	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	1	32	17	1 404	36 975	1 132	2 210	26 090	96 831	85 932	182 727	11 383
326191	Plastics plumbing fixture mfg	—	3	1	e	D	D	D	D	D	D	D	D
326199	All other plastics product mfg	2	29	16	g	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	1	144	56	3 693	126 599	2 806	5 829	85 973	355 291	278 540	630 089	22 639
3272	Glass & glass product mfg	—	17	3	478	18 810	376	694	11 953	65 023	23 589	89 237	1 058
32721	Glass & glass product mfg	—	17	3	478	18 810	376	694	11 953	65 023	23 589	89 237	1 058
327212	Other pressed & blown glass & glassware mfg	—	2	1	e	D	D	D	D	D	D	D	D

Table 2. Industry Statistics for Metropolitan Areas: 1997—Con.

[Includes data for industry groups and industries with 250 employees or more. For definitions of CMSAs, MSAs, and PMSAs, information on geographic areas followed by *, and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	WASHINGTON—BALTIMORE, DC—MD—VA—WV CMSA—Con.												
	Washington, DC—MD—VA—WV PMSA—Con.												
31-33	Manufacturing—Con.												
327	Nonmetallic mineral product mfg—Con.												
3273	Cement & concrete product mfg	1	102	46	2 814	96 811	2 105	4 532	66 009	263 589	240 559	499 663	20 234
32731	Cement mfg	—	2	2	e	D	D	D	D	D	D	D	D
327310	Cement mfg	—	2	2	e	D	D	D	D	D	D	D	D
32732	Ready-mix concrete mfg.	1	59	25	1 268	46 290	942	2 108	33 638	120 048	150 444	270 693	9 951
327320	Ready-mix concrete mfg	1	59	25	1 268	46 290	942	2 108	33 638	120 048	150 444	270 693	9 951
32733	Concrete pipe, brick, & block mfg	1	12	8	e	D	D	D	D	D	D	D	D
32739	Other concrete product mfg	—	29	11	946	27 248	706	1 472	17 397	57 598	35 062	90 826	3 835
327390	Other concrete product mfg	—	29	11	946	27 248	706	1 472	17 397	57 598	35 062	90 826	3 835
331	Primary metal mfg	—	11	5	g	D	D	D	D	D	D	D	D
3313	Alumina & aluminum production & processing ..	—	1	1	f	D	D	D	D	D	D	D	D
33131	Alumina & aluminum production & 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 mfg	—	212	48	5 167	167 519	3 924	7 763	105 550	366 119	326 889	692 764	31 167
3323	Architectural & structural metals mfg	1	88	30	2 563	82 064	1 854	3 607	48 245	167 260	181 664	349 123	15 869
33231	Plate work & fabricated structural product mfg ..	—	23	11	906	30 029	697	1 238	17 058	59 872	95 137	155 775	11 013
332312	Fabricated structural metal mfg	—	19	10	813	27 274	634	1 108	15 430	57 105	92 146	150 010	10 729
33232	Ornamental & architectural metal products mfg	1	65	19	1 657	52 035	1 157	2 369	31 187	107 388	86 527	193 348	4 856
332321	Metal window & door mfg	—	7	2	487	14 298	366	761	9 288	33 834	24 988	58 247	D
332322	Sheet metal work mfg.	1	30	9	574	17 523	412	766	10 909	36 843	32 260	68 829	2 378
332323	Ornamental & architectural metal work mfg	2	28	8	596	20 214	379	842	10 990	36 711	29 279	66 272	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	75	5	f	D	D	D	D	D	D	D	D
33271	Machine shops	1	71	5	708	23 739	555	974	16 101	44 367	14 593	58 611	3 306
332710	Machine shops	1	71	5	708	23 739	555	974	16 101	44 367	14 593	58 611	3 306
3329	Other fabricated metal product mfg	—	18	6	1 203	39 292	956	2 089	26 623	107 616	72 635	179 288	8 748
33291	Metal valve mfg	—	3	1	e	D	D	D	D	D	D	D	D
332912	Fluid power valve & hose fitting mfg	—	2	1	e	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg	—	15	5	f	D	D	D	D	D	D	D	D
332994	Small arms mfg	—	2	1	e	D	D	D	D	D	D	D	D
332999	All other miscellaneous fabricated metal product mfg	—	8	4	e	D	D	D	D	D	D	D	D
333	Machinery mfg	1	74	26	4 184	143 646	2 793	5 713	76 304	360 500	328 877	696 692	D
3332	Industrial machinery mfg ..	1	13	4	1 022	38 661	444	1 001	13 695	97 939	66 104	166 040	D
33329	Other industrial machinery mfg	1	11	3	f	D	D	D	D	D	D	D	D
333295	Semiconductor machinery mfg	—	2	2	f	D	D	D	D	D	D	D	D
3333	Commercial & service industry machinery mfg ..	—	25	8	1 593	48 241	1 379	2 818	33 350	107 484	170 345	282 989	D
33331	Commercial & service industry machinery mfg	—	25	8	1 593	48 241	1 379	2 818	33 350	107 484	170 345	282 989	D
333311	Automatic vending machine mfg	—	2	1	g	D	D	D	D	D	D	D	D
333319	Other commercial & service industry machinery mfg	—	6	2	e	D	D	D	D	D	D	D	D

Table 2. Industry Statistics for Metropolitan Areas: 1997—Con.

[Includes data for industry groups and industries with 250 employees or more. For definitions of CMSAs, MSAs, and PMSAs, information on geographic areas followed by *, and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	WASHINGTON—BALTIMORE, DC—MD—VA—WV CMSA—Con.												
	Washington, DC—MD—VA—WV PMSA—Con.												
31-33	Manufacturing—Con.												
333	Machinery mfg—Con.												
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	6	8	4	657	18 971	424	847	11 172	46 000	33 710	77 289	1 683
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	6	8	4	657	18 971	424	847	11 172	46 000	33 710	77 289	1 683
333415	AC & warm air heating & commercial/ industrial refrig equip mfg	6	5	4	f	D	D	D	D	D	D	D	D
3339	Other general-purpose machinery mfg	—	16	7	698	28 592	430	809	14 484	63 758	34 575	99 019	D
33399	All other general-purpose machinery mfg	—	13	7	f	D	D	D	D	D	D	D	D
333993	Packaging machinery mfg	—	4	4	355	14 090	226	375	7 034	27 972	14 239	42 396	D
334	Computer & electronic product mfg	1	249	121	20 014	1 034 554	7 538	15 912	275 117	2 752 116	1 545 173	4 280 482	165 972
3341	Computer & peripheral equipment mfg	2	38	17	1 481	55 827	396	787	15 956	169 145	193 263	356 268	D
33411	Computer & peripheral equipment mfg	2	38	17	1 481	55 827	396	787	15 956	169 145	193 263	356 268	D
334111	Electronic computer mfg	3	19	10	f	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment mfg	1	17	7	f	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	1	71	41	8 356	435 364	3 467	7 024	139 955	1 207 276	895 059	2 092 511	84 957
33421	Telephone apparatus mfg	1	18	13	g	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	1	18	13	g	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg	—	40	26	5 886	326 562	2 383	5 001	110 295	952 675	636 915	1 581 643	63 826
334220	Radio & TV broadcasting & wireless communications equipment mfg	—	40	26	5 886	326 562	2 383	5 001	110 295	952 675	636 915	1 581 643	63 826
33429	Other communications equipment mfg	1	13	2	e	D	D	D	D	D	D	D	D
334290	Other communications equipment mfg	1	13	2	e	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	1	46	26	2 696	106 588	1 772	4 096	52 436	163 091	127 964	287 865	D
33441	Semiconductor & other electronic component mfg	1	46	26	2 696	106 588	1 772	4 096	52 436	163 091	127 964	287 865	D
334412	Bare printed circuit board mfg	1	12	7	754	23 933	644	1 434	18 267	52 446	37 115	89 886	D
334413	Semiconductor & related device mfg	—	8	4	896	50 015	516	1 329	18 177	59 645	40 744	94 367	13 725
334418	Printed circuit assembly (electronic assembly) mfg	—	9	8	530	17 442	354	766	8 829	21 193	33 331	57 179	D
334419	Other electronic component mfg	4	10	6	434	13 354	228	501	6 489	27 027	12 771	39 806	973
3345	Navigational, measuring, medical, & control instruments mfg	—	71	31	7 202	428 834	1 717	3 658	62 669	1 185 263	315 780	1 503 042	40 783
33451	Navigational, measuring, medical, & control instruments mfg	—	71	31	7 202	428 834	1 717	3 658	62 669	1 185 263	315 780	1 503 042	40 783
334511	Search, detection, navigation, & guidance instrument mfg	—	14	8	4 874	328 227	805	1 717	35 137	887 003	201 730	1 087 819	28 191
334513	Industrial process control instrument mfg	—	9	4	364	14 124	143	302	3 782	31 440	20 653	52 381	1 028
334515	Electricity measuring & testing instrument mfg	—	10	6	714	38 077	197	430	5 566	167 153	49 630	217 270	8 595
334516	Analytical laboratory instrument mfg	4	19	8	513	20 813	146	393	5 090	45 661	16 762	62 283	1 451
334519	Other measuring & controlling device mfg	—	10	4	459	20 644	224	458	9 323	34 219	19 778	55 408	D

Table 2. Industry Statistics for Metropolitan Areas: 1997—Con.

[Includes data for industry groups and industries with 250 employees or more. For definitions of CMSAs, MSAs, and PMSAs, information on geographic areas followed by *, and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)					
	WASHINGTON—BALTIMORE, DC—MD—VA—WV CMSA—Con.													
	Washington, DC—MD—VA—WV PMSA—Con.													
31-33	Manufacturing—Con.													
335	Electrical equipment, appliance, & component mfg	2	29	8	f	D	D	D	D	D	D	D	D	
3359	Other electrical equipment & component mfg	2	12	6	f	D	D	D	D	D	D	D	D	
33592	Communication & energy wire & cable mfg	—	1	1	e	D	D	D	D	D	D	D	D	
335929	Other communication & energy wire mfg	—	1	1	e	D	D	D	D	D	D	D	D	
33599	All other electrical equipment & component mfg	3	10	5										
335999	All other miscellaneous electrical equipment & component mfg	3	10	5		353	8 349	159	186	2 891	42 768	38 380	82 116	D
336	Transportation equipment mfg	2	52	17		2 786	149 654	1 394	2 903	57 794	424 128	656 715	1 066 534	34 707
3361	Motor vehicle mfg	8	3	2	e	D	D	D	D	D	D	D	D	D
33611	Automobile & light duty motor vehicle mfg	8	3	2	e	D	D	D	D	D	D	D	D	D
336111	Automobile mfg	8	2	2	e	D	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg	7	21	6	f	D	D	D	D	D	D	D	D	D
33634	Motor vehicle brake system mfg	2	2	2	e	D	D	D	D	D	D	D	D	D
336340	Motor vehicle brake system mfg	2	2	2	e	D	D	D	D	D	D	D	D	D
33635	Motor vehicle transmission & power train parts mfg	9	2	1	e	D	D	D	D	D	D	D	D	D
336350	Motor vehicle transmission & power train parts mfg	9	2	1	e	D	D	D	D	D	D	D	D	D
3364	Aerospace product & parts mfg	—	15	6		1 463	97 702	414	834	19 344	349 783	469 485	803 247	D
33641	Aerospace product & parts mfg	—	15	6		1 463	97 702	414	834	19 344	349 783	469 485	803 247	D
336414	Guided missile & space vehicle mfg	—	2	2	f	D	D	D	D	D	D	D	D	D
336415	Guided missile & space vehicle propulsion unit & parts mfg	—	1	1	e	D	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	—	173	26		3 456	92 206	2 628	5 129	63 166	296 505	171 091	464 554	5 722
3371	Household & institutional furniture & kitchen cabinet mfg	1	125	9		1 873	47 118	1 539	3 028	34 683	179 040	94 714	273 134	D
33711	Wood kitchen cabinet & counter top mfg	—	86	5		1 218	31 602	972	1 882	22 670	148 073	72 624	220 177	1 248
337110	Wood kitchen cabinet & counter top mfg	—	86	5		1 218	31 602	972	1 882	22 670	148 073	72 624	220 177	1 248
33712	Household & institutional furniture mfg	2	39	4		655	15 516	567	1 146	12 013	30 967	22 090	52 957	D
337122	Nonupholstered wood household furniture mfg	2	29	2		378	9 016	337	710	7 435	18 964	10 123	28 800	791
3372	Office furniture (including fixtures) mfg	1	39	13		1 215	34 262	830	1 577	22 219	77 206	38 747	113 343	2 689
33721	Office furniture (including fixtures) mfg	1	39	13		1 215	34 262	830	1 577	22 219	77 206	38 747	113 343	2 689
337212	Custom architectural woodwork & millwork mfg	—	20	10		629	21 599	448	813	13 002	49 296	17 870	67 485	D
337215	Showcase, partition, shelving, & locker mfg	—	12	1		503	10 519	315	615	7 650	24 698	18 264	40 019	D
3379	Other furniture related product mfg	—	9	4		368	10 826	259	524	6 264	40 259	37 630	78 077	D
33791	Mattress mfg	—	3	3		322	9 767	241	492	5 982	38 379	35 955	74 449	D
337910	Mattress mfg	—	3	3		322	9 767	241	492	5 982	38 379	35 955	74 449	D

Table 2. Industry Statistics for Metropolitan Areas: 1997—Con.

[Includes data for industry groups and industries with 250 employees or more. For definitions of CMSAs, MSAs, and PMSAs, information on geographic areas followed by *, and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	WASHINGTON—BALTIMORE, DC—MD—VA—WV CMSA—Con. Washington, DC—MD—VA—WV PMSA—Con. Manufacturing—Con.												
339	Miscellaneous mfg.....	3	310	30	2 541	78 633	1 631	3 015	37 107	208 214	123 821	334 679	9 163
3391	Medical equipment & supplies mfg.....	2	177	15	1 438	45 503	881	1 635	20 191	150 162	85 237	238 686	6 803
33911	Medical equipment & supplies mfg.....	2	177	15	1 438	45 503	881	1 635	20 191	150 162	85 237	238 686	6 803
339113	Surgical appliance & supplies mfg.....	—	19	5	552	16 409	310	672	6 827	85 974	59 909	149 391	D
339116	Dental laboratories...	6	113	3	468	12 369	345	565	7 404	28 322	9 795	37 180	822
3399	Other miscellaneous mfg..	3	133	15	1 103	33 130	750	1 380	16 916	58 052	38 584	95 993	2 360
33995	Sign mfg.....	2	71	9	691	22 861	449	850	10 939	36 378	22 465	58 513	D
339950	Sign mfg.....	2	71	9	691	22 861	449	850	10 939	36 378	22 465	58 513	D

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of 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.

²Industries 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: c–100 to 249 employees; e–250 to 499 employees; f–500 to 999 employees; g–1,000 to 2,499 employees; h–2,500 to 4,999 employees; i–5,000 to 9,999 employees; j–10,000 to 24,999 employees; k–25,000 to 49,999 employees; l–50,000 to 99,999 employees; m–100,000 employees or more.

Table 3. Industry Statistics for Counties: 1997

[Includes data for industry groups and industries with 500 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	ACCOMACK COUNTY, VA Manufacturing	—	32	7	3 209	52 648	2 533	4 767	44 178	105 481	139 038	244 456	7 903
311	Food mfg.....	—	13	4	2 927	47 925	2 299	4 360	40 509	94 934	130 847	225 761	7 201
3116	Meat product mfg.....	—	3	3	h	D	D	D	D	D	D	D	D
31161	Animal slaughtering & processing.....	—	3	3	h	D	D	D	D	D	D	D	D
311615	Poultry processing.....	—	2	2	h	D	D	D	D	D	D	D	D
31-33	ALBEMARLE COUNTY, VA Manufacturing	—	54	15	g	D	D	D	D	D	D	D	D
311	Food mfg.....	—	4	1	f	D	D	D	D	D	D	D	D
3114	Fruit & vegetable preserving & specialty food mfg.....	—	1	1	f	D	D	D	D	D	D	D	D
31141	Frozen food mfg.....	—	1	1	f	D	D	D	D	D	D	D	D
311412	Frozen specialty food mfg.....	—	1	1	f	D	D	D	D	D	D	D	D
31-33	AMHERST COUNTY, VA Manufacturing	1	44	14	1 678	53 785	1 272	2 614	39 886	209 630	185 538	395 087	20 339
31-33	APPOMATTOX COUNTY, VA Manufacturing	1	18	4	1 216	28 493	1 027	2 344	24 326	65 517	46 735	112 674	2 940
337	Furniture & related product mfg.....	—	1	1	f	D	D	D	D	D	D	D	D
3371	Household & institutional furniture & kitchen cabinet mfg.....	—	1	1	f	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg.....	—	1	1	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg.....	—	1	1	f	D	D	D	D	D	D	D	D

Table 3. Industry Statistics for Counties: 1997—Con.

[Includes data for industry groups and industries with 500 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	All establishments			All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
ARLINGTON COUNTY, VA													
31-33	Manufacturing	1	57	8	509	16 304	373	796	11 247	36 252	23 228	59 507	1 415
AUGUSTA COUNTY, VA													
31-33	Manufacturing	-	66	29	5 372	175 089	4 406	8 764	129 198	709 802	609 136	1 312 385	90 098
311	Food mfg.....	-	2	1	f	D	D	D	D	D	D	D	D
3113	Sugar & confectionery product mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
31133	Confectionery mfg from purchased chocolate...	-	1	1	f	D	D	D	D	D	D	D	D
311330	Confectionery mfg from purchased chocolate.....	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg.....	-	4	2	f	D	D	D	D	D	D	D	2 260
3261	Plastics product mfg.....	-	4	2	f	D	D	D	D	D	D	D	2 260
32619	Other plastics product mfg.....	-	3	2	f	D	D	D	D	D	D	D	D
326199	All other plastics product mfg.....	-	3	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg.....	-	23	10	1 724	58 352	1 366	2 678	39 279	213 647	133 902	348 434	11 992
3322	Cutlery & handtool mfg....	-	3	3	f	D	D	D	D	D	D	D	D
33221	Cutlery & handtool mfg..	-	3	3	f	D	D	D	D	D	D	D	D
332211	Cutlery & flatware (except precious) mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
333	Machinery mfg.....	-	6	3	971	35 083	742	1 599	24 364	81 254	94 857	170 407	4 590
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg.	-	1	1	f	D	D	D	D	D	D	D	D
333415	AC & warm air heating & commercial/ industrial refrig equip mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg.....	-	4	2	f	D	D	D	D	D	D	D	D
BATH COUNTY, VA													
31-33	Manufacturing	-	3	1	f	D	D	D	D	D	D	D	D
BEDFORD COUNTY, VA													
31-33	Manufacturing	1	45	17	1 489	49 651	984	1 970	22 693	95 946	167 358	261 981	33 441
BLAND COUNTY, VA													
31-33	Manufacturing	-	7	5	656	15 831	493	913	10 009	41 558	43 893	85 499	3 767
BOTETOURT COUNTY, VA													
31-33	Manufacturing	-	23	14	1 422	39 340	1 007	2 080	24 159	110 733	102 623	210 409	10 720
BRUNSWICK COUNTY, VA													
31-33	Manufacturing	-	19	10	937	18 672	795	1 604	13 745	44 488	40 220	84 347	4 863

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
CAMPBELL COUNTY, VA													
31-33	Manufacturing	-	62	21	5 098	123 504	4 272	8 566	88 549	890 648	495 670	1 383 730	41 219
311	Food mfg.....	-	5	2	f	D	D	D	D	D	D	D	D
3115	Dairy product mfg	-	1	1	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) mfg	-	1	1	f	D	D	D	D	D	D	D	D
311514	Dry, condensed, & evaporated dairy product mfg.....	-	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
337	Furniture & related product mfg	-	5	2	g	D	D	D	D	D	D	D	D
3371	Household & institutional furniture & kitchen cabinet mfg	-	4	2	g	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	-	3	2	g	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	-	2	1	f	D	D	D	D	D	D	D	D
CARROLL COUNTY, VA													
31-33	Manufacturing	-	35	13	2 430	45 288	2 199	4 300	39 091	112 795	173 151	286 323	28 995
315	Apparel mfg	-	7	6	1 388	23 557	1 339	2 562	21 870	44 644	69 319	113 133	2 812
3152	Cut & sew apparel mfg	-	6	5	g	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	-	3	3	g	D	D	D	D	D	D	D	D
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	-	3	3	g	D	D	D	D	D	D	D	D
CHARLES CITY COUNTY, VA													
31-33	Manufacturing	7	10	4	680	16 023	522	1 008	11 360	36 356	27 064	62 231	1 749
337	Furniture & related product mfg	9	2	1	f	D	D	D	D	D	D	D	D
3371	Household & institutional furniture & kitchen cabinet mfg	9	2	1	f	D	D	D	D	D	D	D	D
33711	Wood kitchen cabinet & counter top mfg	9	2	1	f	D	D	D	D	D	D	D	D
337110	Wood kitchen cabinet & counter top mfg ...	9	2	1	f	D	D	D	D	D	D	D	D
CHARLOTTE COUNTY, VA													
31-33	Manufacturing	-	15	9	1 178	25 352	1 055	2 134	21 429	46 379	95 773	143 625	11 495
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

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
CHESTERFIELD COUNTY, VA													
31-33	Manufacturing	-	164	50	10 166	412 555	7 324	15 716	255 747	1 361 215	1 299 148	2 671 228	134 352
311	Food mfg.....	-	12	5	637	15 039	575	1 177	11 350	54 380	68 962	122 637	3 187
312	Beverage & tobacco product mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
3122	Tobacco mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
31222	Tobacco product mfg ...	-	2	2	f	D	D	D	D	D	D	D	D
312229	Other tobacco product mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
322	Paper mfg.....	-	5	5	695	24 232	578	1 243	19 088	47 890	86 556	131 174	2 686
3222	Converted paper product mfg.....	-	5	5	695	24 232	578	1 243	19 088	47 890	86 556	131 174	2 686
325	Chemical mfg.....	-	10	3	h	D	D	D	D	D	D	D	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg.....	-	3	2	h	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg ..	-	2	2	h	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg.....	-	2	2	h	D	D	D	D	D	D	D	D
331	Primary metal mfg.....	-	5	4	f	D	D	D	D	D	D	D	D
3313	Alumina & aluminum production & processing..	-	3	3	f	D	D	D	D	D	D	D	D
33131	Alumina & aluminum production & processing.....	-	3	3	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg.....	2	27	7	551	19 605	399	736	12 353	30 932	16 972	48 185	1 935
333	Machinery mfg.....	1	16	5	f	D	D	D	D	D	D	D	D
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg.....	-	2	1	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg ..	-	2	1	f	D	D	D	D	D	D	D	D
333415	AC & warm air heating & commercial/ industrial refrig equip mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg.....	-	20	5	614	21 332	492	878	12 866	44 457	57 785	102 775	1 783
3399	Other miscellaneous mfg ..	-	10	5	580	20 463	465	837	12 267	42 160	56 923	99 584	D
CLARKE COUNTY, VA													
31-33	Manufacturing	-	13	3	1 167	33 712	920	1 881	23 392	129 258	61 864	190 310	D
323	Printing & related support activities.....	-	1	1	f	D	D	D	D	D	D	D	D
3231	Printing & related support activities.....	-	1	1	f	D	D	D	D	D	D	D	D
32311	Printing.....	-	1	1	f	D	D	D	D	D	D	D	D
323117	Book printing.....	-	1	1	f	D	D	D	D	D	D	D	D
CULPEPER COUNTY, VA													
31-33	Manufacturing	1	28	10	1 484	45 266	1 107	2 227	28 653	127 616	151 026	278 923	12 616
ESSEX COUNTY, VA													
31-33	Manufacturing	-	18	8	1 140	24 814	996	1 883	18 632	45 649	72 191	119 381	7 392

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
FAIRFAX COUNTY, VA													
31-33	Manufacturing	1	478	107	13 181	551 941	7 658	14 945	262 236	1 437 064	1 152 199	2 594 494	136 627
323	Printing & related support activities	1	145	23	3 068	112 306	2 247	4 522	74 885	190 876	162 999	354 577	90 325
3231	Printing & related support activities	1	145	23	3 068	112 306	2 247	4 522	74 885	190 876	162 999	354 577	90 325
32311	Printing	1	132	21	2 915	107 740	2 137	4 281	72 290	183 028	161 332	345 048	D
323110	Commercial lithographic printing	1	62	15	2 253	92 015	1 631	3 336	61 978	144 859	143 456	288 798	88 244
333	Machinery mfg	-	13	5	643	26 440	516	891	18 816	41 222	17 846	66 197	D
334	Computer & electronic product mfg	1	62	34	5 307	280 021	2 231	4 288	101 183	597 725	383 125	991 754	25 800
3342	Communications equipment mfg	1	18	10	2 216	120 657	1 314	2 344	65 901	264 511	235 268	510 383	D
33421	Telephone apparatus mfg	-	7	5	f	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	-	7	5	f	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg	1	8	5	g	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	1	8	5	g	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	1	19	13	g	D	D	D	D	D	D	D	10 649
33451	Navigational, measuring, medical, & control instruments mfg	1	19	13	g	D	D	D	D	D	D	D	10 649
334511	Search, detection, navigation, & guidance instrument mfg	-	6	4	g	D	D	D	D	D	D	D	8 233
337	Furniture & related product mfg	-	24	2	707	16 672	453	810	10 889	43 626	24 760	65 540	723
3372	Office furniture (including fixtures) mfg	-	4	2	f	D	D	D	D	D	D	D	559
33721	Office furniture (including fixtures) mfg	-	4	2	f	D	D	D	D	D	D	D	559
339	Miscellaneous mfg	1	68	6	800	23 749	532	1 040	11 760	96 617	62 009	159 962	D
FAUQUIER COUNTY, VA													
31-33	Manufacturing	4	36	9	867	25 693	627	1 308	15 378	50 897	58 073	107 778	3 851
FLOYD COUNTY, VA													
31-33	Manufacturing	2	22	5	547	11 178	455	874	8 636	22 736	25 415	47 977	1 233
FRANKLIN COUNTY, VA													
31-33	Manufacturing	-	66	22	4 677	113 022	3 717	7 832	75 762	255 095	275 734	519 627	15 661
313	Textile mills	-	2	2	f	D	D	D	D	D	D	D	D
315	Apparel mfg	-	4	4	734	11 666	693	1 354	10 334	21 504	34 277	55 700	D
3152	Cut & sew apparel mfg	-	3	3	f	D	D	D	D	D	D	D	D
321	Wood product mfg	1	24	9	2 026	56 049	1 487	3 520	34 405	108 001	128 386	231 790	8 275
3219	Other wood product mfg	-	13	6	1 800	45 292	1 307	3 137	30 190	86 989	84 444	170 247	5 743
32191	Millwork	-	5	2	g	D	D	D	D	D	D	D	D
321911	Wood window & door mfg	-	2	2	g	D	D	D	D	D	D	D	D
32199	All other wood product mfg	-	8	4	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
FREDERICK COUNTY, VA													
31-33	Manufacturing	-	69	37	3 416	97 027	2 299	4 423	61 098	362 154	383 798	741 135	36 698
326	Plastics & rubber products mfg	-	10	8	646	16 761	506	1 041	11 039	75 020	41 955	115 129	1 654
3261	Plastics product mfg	-	7	6	509	11 951	415	827	8 393	56 339	32 708	87 100	979
332	Fabricated metal product mfg	-	11	6	747	24 905	604	1 194	19 411	84 623	159 599	244 717	1 881
334	Computer & electronic product mfg	-	3	3	674	17 283	329	476	10 815	39 033	51 754	91 568	D
3345	Navigational, measuring, medical, & control instruments mfg	-	1	1	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	1	1	f	D	D	D	D	D	D	D	D
334514	Totalizing fluid meter & counting device mfg .	-	1	1	f	D	D	D	D	D	D	D	D
GILES COUNTY, VA													
31-33	Manufacturing	-	15	13	2 731	90 504	2 109	4 466	63 586	304 188	232 718	538 641	27 010
325	Chemical mfg	-	1	1	g	D	D	D	D	D	D	D	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	-	1	1	g	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg ..	-	1	1	g	D	D	D	D	D	D	D	D
325221	Cellulosic organic fiber mfg	-	1	1	g	D	D	D	D	D	D	D	D
GRAYSON COUNTY, VA													
31-33	Manufacturing	-	18	11	1 085	25 827	787	1 687	16 743	74 352	50 579	123 380	1 965
GREENSVILLE COUNTY, VA													
31-33	Manufacturing	-	5	3	733	15 014	678	1 382	13 216	36 386	83 915	120 262	D
311	Food mfg	-	1	1	f	D	D	D	D	D	D	D	D
3116	Meat product mfg	-	1	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering & 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
HALIFAX COUNTY, VA *													
31-33	Manufacturing	-	42	20	4 707	113 842	4 122	7 866	92 233	251 795	403 819	652 862	23 595
313	Textile mills	-	3	3	1 579	37 573	1 450	2 877	32 315	58 682	161 952	220 812	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
315	Apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	2	2	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	-	2	2	f	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	-	5	2	f	D	D	D	D	D	D	D	D
3371	Household & institutional furniture & kitchen cabinet mfg	-	5	2	f	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	-	4	2	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	-	2	2	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
HANOVER COUNTY, VA													
31-33	Manufacturing	1	150	43	3 803	111 772	3 009	5 644	72 214	257 477	322 437	579 724	D
311	Food mfg	-	7	2	f	D	D	D	D	D	D	D	D
3116	Meat product mfg	-	2	2	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering & processing	-	2	2	f	D	D	D	D	D	D	D	D
311615	Poultry processing	-	1	1	f	D	D	D	D	D	D	D	D
HENRICO COUNTY, VA													
31-33	Manufacturing	1	216	83	10 857	379 002	7 656	15 089	253 920	1 502 149	912 190	2 432 264	380 350
311	Food mfg	-	17	3	f	D	D	D	D	D	D	D	D
3118	Bakeries & tortilla mfg	-	13	2	f	D	D	D	D	D	D	D	D
31182	Cookie, cracker, & pasta mfg	-	2	1	f	D	D	D	D	D	D	D	D
311821	Cookie & cracker mfg	-	1	1	f	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	-	5	4	f	D	D	D	D	D	D	D	D
3122	Tobacco mfg	-	2	2	f	D	D	D	D	D	D	D	D
31222	Tobacco product mfg	-	2	2	f	D	D	D	D	D	D	D	D
312229	Other tobacco product mfg	-	2	2	f	D	D	D	D	D	D	D	D
322	Paper mfg	1	10	9	g	29 412	627	1 414	17 747	78 939	104 898	186 682	7 284
3222	Converted paper product mfg	1	10	9	g	29 412	627	1 414	17 747	78 939	104 898	186 682	7 284
323	Printing & related support activities	1	47	18	g	D	D	D	D	D	D	D	7 880
3231	Printing & related support activities	1	47	18	g	D	D	D	D	D	D	D	7 880
32311	Printing	1	42	15	g	D	D	D	D	D	D	D	7 381
323110	Commercial lithographic printing ..	2	17	8	f	D	D	D	D	D	D	D	2 301
326	Plastics & rubber products mfg	4	7	5	h	14 869	475	989	11 429	55 441	43 700	98 538	D
3261	Plastics product mfg	4	7	5	h	14 869	475	989	11 429	55 441	43 700	98 538	D
332	Fabricated metal product mfg	-	24	9	h	28 240	557	1 079	16 920	60 307	70 815	132 167	D
333	Machinery mfg	-	20	8	h	36 086	523	1 117	18 250	109 847	115 068	226 693	D
3332	Industrial machinery mfg ..	-	11	5	h	29 071	395	865	14 989	95 053	101 249	198 750	D
33329	Other industrial machinery mfg	-	11	5	h	29 071	395	865	14 989	95 053	101 249	198 750	D
334	Computer & electronic product mfg	-	7	3	h	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	-	3	3	h	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	-	3	3	h	D	D	D	D	D	D	D	D
334412	Bare printed circuit board mfg	-	1	1	g	D	D	D	D	D	D	D	D
HENRY COUNTY, VA													
31-33	Manufacturing	-	70	34	7 970	189 123	7 068	13 838	145 581	447 896	430 474	858 383	22 615
313	Textile mills	-	1	1	g	D	D	D	D	D	D	D	D
3132	Fabric mills	-	1	1	g	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills ..	-	1	1	g	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	-	1	1	g	D	D	D	D	D	D	D	D
315	Apparel mfg	-	2	1	f	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	2	1	f	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	-	2	1	f	D	D	D	D	D	D	D	D
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	-	2	1	f	D	D	D	D	D	D	D	D
325	Chemical mfg	-	3	2	h	28 956	602	1 136	25 195	45 373	65 235	91 924	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	-	2	2	f	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg ..	-	2	2	f	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg	-	2	2	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	7	4	h	22 992	571	1 033	13 358	84 275	48 606	131 707	6 418
3261	Plastics product mfg	-	6	4	f	D	D	D	D	D	D	D	D

Table 3. Industry Statistics for Counties: 1997—Con.

[Includes data for industry groups and industries with 500 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
HENRY COUNTY, VA—Con.													
31-33	Manufacturing—Con.												
337	Furniture & related product mfg	-	12	8	3 239	63 109	3 001	5 904	49 862	125 892	119 142	245 247	3 683
3371	Household & institutional furniture & kitchen cabinet mfg	-	10	8	h	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	-	9	8	3 223	62 826	2 988	5 876	49 627	125 407	118 767	244 347	3 659
337122	Nonupholstered wood household furniture mfg	-	5	5	h	D	D	D	D	D	D	D	D
ISLE OF WIGHT COUNTY, VA													
31-33	Manufacturing	-	17	6	4 698	106 596	3 798	7 755	77 433	793 929	772 940	1 546 841	7 451
311	Food mfg	-	5	4	h	D	D	D	D	D	D	D	D
3116	Meat product mfg	-	5	4	h	D	D	D	D	D	D	D	D
31161	Animal slaughtering & 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
JAMES CITY COUNTY, VA													
31-33	Manufacturing	-	26	10	g	D	D	D	D	D	D	D	8 651
KING WILLIAM COUNTY, VA													
31-33	Manufacturing	-	13	5	1 114	56 524	833	1 797	38 866	164 312	185 460	357 154	D
322	Paper mfg	-	2	1	f	D	D	D	D	D	D	D	D
3221	Pulp, paper, & 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
LEE COUNTY, VA													
31-33	Manufacturing	3	17	7	784	10 810	686	1 152	9 090	42 984	27 965	70 763	3 790
LOUDOUN COUNTY, VA													
31-33	Manufacturing	1	128	39	3 459	132 840	2 379	4 961	76 265	265 712	209 369	480 793	26 842
323	Printing & related support activities	1	35	9	598	22 555	454	850	15 701	43 751	23 335	66 716	11 240
3231	Printing & related support activities	1	35	9	598	22 555	454	850	15 701	43 751	23 335	66 716	11 240
32311	Printing	1	29	8	554	21 647	421	799	15 019	42 223	23 079	64 910	D
334	Computer & electronic product mfg	1	19	12	1 256	55 099	777	1 724	26 050	103 353	87 754	196 285	D
3344	Semiconductor & other electronic component mfg	-	2	2	f	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	-	2	2	f	D	D	D	D	D	D	D	D
LOUISA COUNTY, VA													
31-33	Manufacturing	-	29	8	633	16 366	489	956	10 070	51 077	38 764	89 333	7 580
LUNENBURG COUNTY, VA													
31-33	Manufacturing	2	16	8	900	16 157	758	1 750	12 515	32 183	43 794	76 282	2 797

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
MECKLENBURG COUNTY, VA													
31-33	Manufacturing	-	41	23	4 589	102 714	3 845	7 665	75 557	340 178	512 977	859 074	25 856
311	Food mfg	-	2	2	f	D	D	D	D	D	D	D	D
3113	Sugar & confectionery product mfg	-	2	2	f	D	D	D	D	D	D	D	D
31133	Confectionery mfg from purchased chocolate...	-	2	2	f	D	D	D	D	D	D	D	D
311330	Confectionery mfg from purchased chocolate	-	2	2	f	D	D	D	D	D	D	D	D
313	Textile mills	-	5	4	g	D	D	D	D	D	D	D	D
3132	Fabric mills	-	5	4	g	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills ..	-	4	3	g	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	-	4	3	g	D	D	D	D	D	D	D	D
321	Wood product mfg	-	6	4	538	12 105	447	852	7 836	30 823	29 112	59 336	D
MONTGOMERY COUNTY, VA													
31-33	Manufacturing	-	68	22	4 836	153 895	3 796	7 307	109 900	481 778	214 634	699 060	20 728
325	Chemical mfg	-	2	1	g	D	D	D	D	D	D	D	D
3259	Other chemical product mfg	-	1	1	g	D	D	D	D	D	D	D	D
32592	Explosives mfg	-	1	1	g	D	D	D	D	D	D	D	D
325920	Explosives mfg	-	1	1	g	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	6	3	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	4	1	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	4	1	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	1	1	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	3	2	f	D	D	D	D	D	D	D	D
3351	Electric lighting equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
33512	Lighting fixture mfg	-	1	1	f	D	D	D	D	D	D	D	D
335129	Other lighting equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	-	1	1	f	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine & engine parts mfg	-	1	1	f	D	D	D	D	D	D	D	D
336312	Gasoline engine & engine parts mfg	-	1	1	f	D	D	D	D	D	D	D	D
NELSON COUNTY, VA													
31-33	Manufacturing	4	14	3	621	8 725	563	856	7 114	21 209	20 249	41 164	674
NORTHUMBERLAND COUNTY, VA													
31-33	Manufacturing	3	19	7	575	12 947	316	622	6 483	35 567	22 898	59 582	D
NOTTOWAY COUNTY, VA													
31-33	Manufacturing	-	18	9	681	11 277	604	1 165	9 328	40 381	103 073	139 870	1 369

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
ORANGE COUNTY, VA													
31-33	Manufacturing	-	35	13	2 529	68 760	1 975	3 770	46 063	205 023	243 053	445 643	30 884
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
31324	Knit fabric mills	-	1	1	f	D	D	D	D	D	D	D	D
313249	Other knit fabric & lace mills	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32611	Unsupported plastics film, sheet, & bag mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
326113	Unsupported plastics film & sheet (except packaging) mfg	-	1	1	f	D	D	D	D	D	D	D	D
PAGE COUNTY, VA													
31-33	Manufacturing	-	16	9	2 883	47 545	2 352	4 103	33 459	197 885	261 777	461 823	11 168
315	Apparel mfg	-	2	2	g	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	2	2	g	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	-	1	1	g	D	D	D	D	D	D	D	D
315224	Men's & boys' cut & sew trouser, slack, & jean mfg	-	1	1	g	D	D	D	D	D	D	D	D
PATRICK COUNTY, VA													
31-33	Manufacturing	-	38	18	2 610	55 695	2 342	4 664	43 779	109 336	136 689	249 727	25 167
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
315	Apparel mfg	-	4	4	527	8 329	508	937	7 698	16 952	29 991	48 014	597
PITTSYLVANIA COUNTY, VA													
31-33	Manufacturing	-	59	23	h	D	D	D	D	D	D	D	30 182
313	Textile mills	-	1	1	g	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	-	1	1	g	D	D	D	D	D	D	D	D
31331	Textile & fabric finishing mills	-	1	1	g	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills	-	1	1	g	D	D	D	D	D	D	D	D
315	Apparel mfg	-	4	3	f	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	3	3	f	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	-	2	2	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	2	2	f	D	D	D	D	D	D	D	D
3359	Other electrical equipment & component mfg	-	2	2	f	D	D	D	D	D	D	D	D
33592	Communication & energy wire & cable mfg	-	1	1	f	D	D	D	D	D	D	D	D
335929	Other communication & energy wire mfg ...	-	1	1	f	D	D	D	D	D	D	D	D
PRINCE EDWARD COUNTY, VA													
31-33	Manufacturing	-	18	5	f	D	D	D	D	D	D	D	3 088
PRINCE WILLIAM COUNTY, VA													
31-33	Manufacturing	1	109	31	2 974	115 882	2 030	4 133	67 879	187 231	195 483	378 100	11 536
334	Computer & electronic product mfg	3	7	4	628	36 718	331	730	13 745	46 403	38 742	81 004	D
336	Transportation equipment mfg	-	5	2	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
PULASKI COUNTY, VA													
31-33	Manufacturing	-	41	25	6 509	169 553	5 444	11 224	131 538	349 160	1 283 904	1 655 829	30 007
313	Textile mills	-	3	3	f	D	D	D	D	D	D	D	D
315	Apparel mfg	-	3	3	g	D	D	D	D	D	D	D	D
3151	Apparel knitting mills	-	1	1	g	D	D	D	D	D	D	D	D
31511	Hosiery & sock mills	-	1	1	g	D	D	D	D	D	D	D	D
315119	Other hosiery & sock mills	-	1	1	g	D	D	D	D	D	D	D	D
333	Machinery mfg	-	5	3	515	15 323	321	693	10 498	57 629	62 896	114 320	D
336	Transportation equipment mfg	-	5	4	g	D	D	D	D	D	D	D	D
3361	Motor vehicle mfg	-	1	1	g	D	D	D	D	D	D	D	D
33612	Heavy duty truck mfg	-	1	1	g	D	D	D	D	D	D	D	D
336120	Heavy duty truck mfg	-	1	1	g	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	-	7	4	g	D	D	D	D	D	D	D	D
3371	Household & institutional furniture & kitchen cabinet mfg	-	7	4	g	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	-	7	4	g	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	-	5	3	g	D	D	D	D	D	D	D	D
ROANOKE COUNTY, VA													
31-33	Manufacturing	-	64	20	3 450	107 577	2 389	4 967	67 751	287 476	312 933	598 654	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
332	Fabricated metal product mfg	-	15	5	949	33 025	607	1 183	17 706	68 653	52 032	122 814	3 035
ROCKBRIDGE COUNTY, VA													
31-33	Manufacturing	-	24	12	2 090	49 976	1 755	3 507	40 561	108 739	223 326	335 438	11 468
314	Textile product mills	-	1	1	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 & rug mills	-	1	1	g	D	D	D	D	D	D	D	D
314110	Carpet & rug mills	-	1	1	g	D	D	D	D	D	D	D	D
ROCKINGHAM COUNTY, VA													
31-33	Manufacturing	-	74	29	9 272	269 704	7 474	15 548	184 409	2 021 447	2 115 772	4 112 489	126 742
311	Food mfg	-	14	9	4 445	91 434	4 044	8 682	70 585	251 729	736 601	985 470	27 907
3116	Meat product mfg	-	8	6	4 154	81 697	3 814	8 074	65 619	195 736	606 003	798 209	26 422
31161	Animal slaughtering & processing	-	8	6	4 154	81 697	3 814	8 074	65 619	195 736	606 003	798 209	26 422
311615	Poultry processing	-	4	4	4 047	78 908	3 747	7 908	63 946	186 513	592 016	774 830	D
323	Printing & related support activities	-	12	5	1 378	42 610	1 079	2 027	30 757	118 578	59 415	178 990	2 870
3231	Printing & related support activities	-	12	5	1 378	42 610	1 079	2 027	30 757	118 578	59 415	178 990	2 870
32311	Printing	-	12	5	1 378	42 610	1 079	2 027	30 757	118 578	59 415	178 990	2 870
323117	Book printing	-	1	1	g	D	D	D	D	D	D	D	D
325	Chemical mfg	-	3	1	f	D	D	D	D	D	D	D	D
3254	Pharmaceutical & medicine mfg	-	1	1	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	-	1	1	f	D	D	D	D	D	D	D	D
325411	Medicinal & botanical mfg	-	1	1	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	2	1	f	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	-	1	1	f	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	-	1	1	f	D	D	D	D	D	D	D	D
334417	Electronic connector mfg	-	1	1	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
RUSSELL COUNTY, VA													
31-33	Manufacturing	—	26	8	1 614	28 843	1 379	2 973	22 601	64 835	64 495	129 236	5 203
315	Apparel mfg	—	6	6	857	12 110	766	1 484	10 377	30 832	16 156	46 924	D
3152	Cut & sew apparel mfg	—	6	6	857	12 110	766	1 484	10 377	30 832	16 156	46 924	D
31521	Cut & sew apparel contractors	—	4	4	f	D	D	D	D	D	D	D	D
315212	Women's, girls', & infants' cut & sew apparel contractors ..	—	3	3	f	D	D	D	D	D	D	D	D
SHENANDOAH COUNTY, VA													
31-33	Manufacturing	1	47	24	5 436	139 439	4 375	9 097	105 164	329 704	513 170	840 476	16 638
311	Food mfg	—	7	6	1 576	34 142	1 155	2 524	22 697	73 650	262 317	336 575	2 271
3116	Meat product mfg	—	4	4	1 410	29 108	1 012	2 172	19 792	62 914	204 829	268 411	1 555
31161	Animal slaughtering & processing	—	4	4	1 410	29 108	1 012	2 172	19 792	62 914	204 829	268 411	1 555
311615	Poultry processing	—	3	3	g	D	D	D	D	D	D	D	D
315	Apparel mfg	5	6	5	735	10 933	698	1 231	9 916	21 131	11 478	32 505	687
3152	Cut & sew apparel mfg	7	5	4	f	D	D	D	D	D	D	D	D
323	Printing & related support activities	9	5	2	f	D	D	D	D	D	D	D	D
3231	Printing & related support activities	9	5	2	f	D	D	D	D	D	D	D	D
32311	Printing	9	5	2	f	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing ..	9	2	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	—	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	—	1	1	f	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	—	1	1	f	D	D	D	D	D	D	D	D
326199	All other plastics product mfg	—	1	1	f	D	D	D	D	D	D	D	D
SMYTH COUNTY, VA													
31-33	Manufacturing	1	53	25	4 913	109 170	4 158	8 268	81 779	335 565	372 748	692 628	11 624
315	Apparel mfg	4	8	6	1 323	25 431	1 244	2 655	22 625	59 993	62 983	123 620	1 696
3152	Cut & sew apparel mfg	5	5	4	f	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	8	3	3	f	D	D	D	D	D	D	D	D
321	Wood product mfg	—	7	4	f	D	D	D	D	D	D	D	D
3219	Other wood product mfg ..	—	4	3	f	D	D	D	D	D	D	D	D
32191	Millwork	—	3	3	702	15 487	598	1 219	12 942	35 784	42 436	81 366	D
336	Transportation equipment mfg	—	3	3	1 060	25 884	860	1 634	19 203	115 459	189 867	295 277	3 478
3362	Motor vehicle body & trailer mfg	—	1	1	f	D	D	D	D	D	D	D	D
33621	Motor vehicle body & trailer mfg	—	1	1	f	D	D	D	D	D	D	D	D
336212	Truck trailer mfg	—	1	1	f	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	—	5	3	673	11 409	602	1 179	8 884	31 172	21 008	43 022	D
3371	Household & institutional furniture & kitchen cabinet mfg	—	3	2	f	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	—	2	2	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	—	2	2	f	D	D	D	D	D	D	D	D
SOUTHAMPTON COUNTY, VA													
31-33	Manufacturing	—	16	8	2 874	131 073	2 082	4 427	92 542	393 842	319 640	709 957	D
322	Paper mfg	—	1	1	g	D	D	D	D	D	D	D	D
3221	Pulp, paper, & 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
SPOTSYLVANIA COUNTY, VA													
31-33	Manufacturing	3	40	17	1 698	60 382	1 325	2 778	41 735	127 201	180 967	304 886	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
STAFFORD COUNTY, VA													
31-33	Manufacturing	1	47	8	711	17 239	568	1 122	13 307	48 782	50 135	99 215	3 767
SUSSEX COUNTY, VA													
31-33	Manufacturing	7	9	7	1 138	26 525	987	1 799	21 362	99 144	184 543	283 506	6 677
311	Food mfg	9	1	1	f	D	D	D	D	D	D	D	D
3116	Meat product mfg	9	1	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering & processing	9	1	1	f	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	9	1	1	f	D	D	D	D	D	D	D	D
TAZEWELL COUNTY, VA													
31-33	Manufacturing	1	58	19	1 517	30 583	1 122	1 962	19 880	57 615	90 751	161 232	4 468
WARREN COUNTY, VA													
31-33	Manufacturing	-	27	7	1 540	37 663	1 366	2 486	29 051	227 403	297 408	511 000	D
322	Paper mfg	-	1	1	f	D	D	D	D	D	D	D	D
3222	Converted paper product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32223	Stationery product mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
322233	Stationery, tablet, & related product mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
WASHINGTON COUNTY, VA													
31-33	Manufacturing	1	65	20	2 031	53 226	1 503	2 861	31 984	176 038	134 116	315 785	D
333	Machinery mfg	2	8	4	f	D	D	D	D	D	D	D	D
WESTMORELAND COUNTY, VA													
31-33	Manufacturing	7	16	7	694	13 508	612	1 079	8 968	34 693	91 676	124 593	3 213
WISE COUNTY, VA													
31-33	Manufacturing	9	24	2	556	10 099	466	944	8 123	30 377	34 849	64 184	1 369
WYTHE COUNTY, VA													
31-33	Manufacturing	-	45	17	2 129	51 638	1 766	3 449	37 876	159 884	119 435	276 944	9 628
326	Plastics & rubber products mfg	-	4	3	571	15 162	437	938	9 734	53 203	27 913	81 252	2 613
332	Fabricated metal product mfg	-	13	6	841	20 991	702	1 380	15 984	50 060	39 688	89 489	4 620
3327	Machine shops, turned product, & screw, nut, & bolt mfg	-	9	4	f	D	D	D	D	D	D	D	D
YORK COUNTY, VA													
31-33	Manufacturing	-	28	3	f	D	D	D	D	D	D	D	D
ALEXANDRIA, VA (IC)													
31-33	Manufacturing	2	114	23	1 907	59 448	1 230	2 441	33 774	194 752	131 827	328 058	9 535
311	Food mfg	3	18	6	608	11 494	366	746	6 437	37 356	30 398	68 175	1 500
323	Printing & related support activities	4	46	9	657	25 013	455	903	15 428	46 995	26 690	73 858	3 596
3231	Printing & related support activities	4	46	9	657	25 013	455	903	15 428	46 995	26 690	73 858	3 596
32311	Printing	4	41	9	635	24 386	435	868	14 955	45 831	26 452	72 455	D
BEDFORD, VA (IC)													
31-33	Manufacturing	-	30	12	2 278	62 216	1 788	3 606	41 856	122 441	132 363	254 317	9 740
326	Plastics & rubber products mfg	-	1	1	f	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32629	Other rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
326299	All other rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
BRISTOL, VA (IC)													
31-33	Manufacturing	-	41	22	6 954	184 362	5 554	11 462	132 773	474 903	762 484	1 222 944	33 611
311	Food mfg	-	5	3	f	D	D	D	D	D	D	D	D
3119	Other food mfg	-	2	2	f	D	D	D	D	D	D	D	D
31191	Snack food mfg	-	2	2	f	D	D	D	D	D	D	D	D
311919	Other snack food mfg .	-	2	2	f	D	D	D	D	D	D	D	D
333	Machinery mfg	-	4	3	h	D	D	D	D	D	D	D	D
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	-	1	1	h	D	D	D	D	D	D	D	D
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg .	-	1	1	h	D	D	D	D	D	D	D	D
333415	AC & warm air heating & commercial/ industrial refrig equip mfg	-	1	1	h	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	3	2	g	D	D	D	D	D	D	D	D
3352	Household appliance mfg .	-	1	1	f	D	D	D	D	D	D	D	D
33521	Small electrical appliance mfg	-	1	1	f	D	D	D	D	D	D	D	D
335212	Household vacuum cleaner mfg	-	1	1	f	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
335313	Switchgear & switchboard apparatus mfg	-	1	1	f	D	D	D	D	D	D	D	D
BUENA VISTA, VA (IC)													
31-33	Manufacturing	-	10	9	f	D	D	D	D	D	D	D	9 174
CHARLOTTESVILLE, VA (IC)													
31-33	Manufacturing	1	67	19	h	D	D	D	D	D	D	D	17 387
334	Computer & electronic product mfg	-	7	4	g	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	-	2	1	f	D	D	D	D	D	D	D	D
33421	Telephone apparatus mfg	-	1	1	f	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	-	1	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	4	3	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	4	3	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	1	1	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	4	2	g	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	2	1	g	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	-	2	1	g	D	D	D	D	D	D	D	D
335314	Relay & industrial control mfg	-	2	1	g	D	D	D	D	D	D	D	D
CHESAPEAKE, VA (IC)													
31-33	Manufacturing	-	132	45	4 558	147 008	2 967	6 278	80 858	336 679	767 091	1 085 023	47 124
333	Machinery mfg	-	10	8	g	D	D	D	D	D	D	D	20 833
336	Transportation equipment mfg	-	10	4	f	D	D	D	D	D	D	D	D
3366	Ship & boat building	1	5	3	f	D	D	D	D	D	D	D	336
33661	Ship & boat building	1	5	3	f	D	D	D	D	D	D	D	336
336611	Ship building & repairing	1	5	3	f	D	D	D	D	D	D	D	336

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
COLONIAL HEIGHTS, VA (IC)													
31-33	Manufacturing	-	14	5	838	20 383	711	1 521	14 914	146 503	69 614	215 440	4 426
326	Plastics & rubber products mfg	-	2	1	f	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	2	1	f	D	D	D	D	D	D	D	D
32629	Other rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
326299	All other rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
COVINGTON, VA (IC)													
31-33	Manufacturing	-	11	6	2 615	113 429	1 842	3 721	74 022	510 850	507 122	1 004 852	D
322	Paper mfg	-	1	1	g	D	D	D	D	D	D	D	D
3221	Pulp, paper, & 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 & rubber products mfg	-	2	2	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	-	2	2	f	D	D	D	D	D	D	D	D
DANVILLE, VA (IC)													
31-33	Manufacturing	2	47	23	j	D	D	D	D	D	D	D	60 613
313	Textile mills	9	3	3	i	D	D	D	D	D	D	D	D
3132	Fabric mills	9	2	2	i	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills	9	2	2	i	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	9	2	2	i	D	D	D	D	D	D	D	D
315	Apparel mfg	-	3	3	g	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	2	2	f	D	D	D	D	D	D	D	D
31529	Other cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
315291	Infants' cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
321	Wood product mfg	-	4	4	f	D	D	D	D	D	D	D	3 867
326	Plastics & rubber products mfg	-	2	1	g	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	2	1	g	D	D	D	D	D	D	D	D
32621	Tire mfg	-	2	1	g	D	D	D	D	D	D	D	D
326211	Tire mfg (except retreading)	-	1	1	g	D	D	D	D	D	D	D	D
EMPORIA, VA (IC)													
31-33	Manufacturing	1	13	10	1 055	28 976	868	1 914	22 341	72 354	87 353	158 732	D
FREDERICKSBURG, VA (IC)													
31-33	Manufacturing	-	41	11	1 059	28 558	830	1 720	19 547	88 499	152 403	240 718	21 409
GALAX, VA (IC)													
31-33	Manufacturing	-	24	13	4 460	86 840	4 042	8 132	71 815	172 696	205 575	380 240	6 970
315	Apparel mfg	-	6	2	f	D	D	D	D	D	D	D	D
3151	Apparel knitting mills	-	1	1	f	D	D	D	D	D	D	D	D
31519	Other apparel knitting mills	-	1	1	f	D	D	D	D	D	D	D	D
315191	Outerwear knitting mills	-	1	1	f	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	-	4	2	f	D	D	D	D	D	D	D	D
3272	Glass & glass product mfg	-	2	2	f	D	D	D	D	D	D	D	D
32721	Glass & glass product mfg	-	2	2	f	D	D	D	D	D	D	D	D
327215	Glass product mfg made of purchased glass	-	2	2	f	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	-	7	5	2 413	46 004	2 238	4 663	38 833	90 589	70 545	160 801	2 587
3371	Household & institutional furniture & kitchen cabinet mfg	-	7	5	2 413	46 004	2 238	4 663	38 833	90 589	70 545	160 801	2 587
33712	Household & institutional furniture mfg	-	7	5	2 413	46 004	2 238	4 663	38 833	90 589	70 545	160 801	2 587
337122	Nonupholstered wood household furniture mfg	-	6	5	g	D	D	D	D	D	D	D	D

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HAMPTON, VA (IC)													
31-33	Manufacturing	-	80	23	4 636	123 401	3 636	6 726	81 251	422 730	556 239	970 987	27 152
331	Primary metal mfg	-	1	1	g	D	D	D	D	D	D	D	D
3315	Foundries	-	1	1	g	D	D	D	D	D	D	D	D
33152	Nonferrous metal foundries	-	1	1	g	D	D	D	D	D	D	D	D
331528	Other nonferrous foundries (except die-casting)	-	1	1	g	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	20	6	565	17 338	382	720	10 241	28 488	20 864	46 501	D
334	Computer & electronic product mfg	-	6	3	g	D	D	D	D	D	D	D	D
3341	Computer & peripheral equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
334111	Electronic computer mfg	-	1	1	f	D	D	D	D	D	D	D	D
HARRISONBURG, VA (IC)													
31-33	Manufacturing	1	38	18	3 687	102 638	2 985	6 175	73 871	254 261	472 186	725 828	19 974
311	Food mfg	-	6	5	557	12 190	512	1 048	10 187	43 297	280 946	323 861	2 180
333	Machinery mfg	-	2	2	f	D	D	D	D	D	D	D	D
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	-	1	1	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
333415	AC & warm air heating & commercial/ industrial refrig equip mfg	-	1	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	9	2	2	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	9	2	2	f	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts mfg	9	1	1	f	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts mfg	9	1	1	f	D	D	D	D	D	D	D	D
HOPEWELL, VA (IC)													
31-33	Manufacturing	1	19	8	2 907	147 431	2 191	4 718	96 057	743 916	607 369	1 328 058	80 406
325	Chemical mfg	1	7	6	g	D	D	D	D	D	D	D	D
3251	Basic chemical mfg	-	6	5	1 579	80 842	1 214	2 556	52 103	440 867	402 548	826 178	D
32519	Other basic organic chemical mfg	-	3	3	g	D	D	D	D	D	D	D	D
325199	All other basic organic chemical mfg	-	3	3	g	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32611	Unsupported plastics film, sheet, & bag mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
326113	Unsupported plastics film & sheet (except packaging) mfg	-	1	1	f	D	D	D	D	D	D	D	D
LYNCHBURG, VA (IC)													
31-33	Manufacturing	-	117	52	12 535	481 093	8 365	16 189	257 097	1 602 612	1 506 207	3 096 355	168 636
322	Paper mfg	-	3	2	f	D	D	D	D	D	D	D	D
323	Printing & related support activities	-	12	3	f	D	D	D	D	D	D	D	D
3231	Printing & related support activities	-	12	3	f	D	D	D	D	D	D	D	D
32311	Printing	-	9	3	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 mfg	-	7	6	g	D	D	D	D	D	D	D	D
3251	Basic chemical mfg	-	1	1	g	D	D	D	D	D	D	D	D
32518	Other basic inorganic chemical mfg	-	1	1	g	D	D	D	D	D	D	D	D
325188	All other basic inorganic chemical mfg	-	1	1	g	D	D	D	D	D	D	D	D

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	LYNCHBURG, VA (IC)—Con.												
31-33	Manufacturing—Con.												
331	Primary metal mfg	—	2	2	g	D	D	D	D	D	D	D	D
3315	Foundries	—	2	2	g	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries	—	2	2	g	D	D	D	D	D	D	D	D
331511	Iron foundries	—	2	2	g	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	—	26	8	1 434	61 872	816	1 813	29 309	128 697	67 322	189 196	7 298
333	Machinery mfg	—	12	6	1 289	56 738	674	1 643	25 051	127 636	80 259	211 296	6 461
3339	Other general-purpose machinery mfg	—	5	4	f	D	D	D	D	D	D	D	D
33392	Material handling equipment mfg	—	3	3	f	D	D	D	D	D	D	D	D
333922	Conveyor & conveying equipment mfg	—	3	3	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	—	6	5	h	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	—	1	1	h	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg	—	1	1	h	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	—	1	1	h	D	D	D	D	D	D	D	D
	MANASSAS, VA (IC)												
31-33	Manufacturing	—	34	11	2 822	188 529	582	1 254	20 223	594 660	199 283	791 561	D
334	Computer & electronic product mfg	—	3	2	g	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	—	2	1	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	—	2	1	g	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	—	1	1	g	D	D	D	D	D	D	D	D
	MARTINSVILLE, VA (IC)												
31-33	Manufacturing	—	39	24	8 726	203 035	7 241	14 000	146 246	345 425	372 898	724 148	17 535
315	Apparel mfg	—	5	4	4 847	115 564	4 028	7 550	84 929	171 750	165 196	342 070	D
3151	Apparel knitting mills	—	1	1	g	D	D	D	D	D	D	D	D
31519	Other apparel knitting mills	—	1	1	g	D	D	D	D	D	D	D	D
315191	Outerwear knitting mills	—	1	1	g	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	—	4	3	h	D	D	D	D	D	D	D	D
31521	Cut & sew apparel contractors	—	3	2	f	D	D	D	D	D	D	D	D
315211	Men's & boys' cut & sew apparel contractors	—	3	2	f	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	—	1	1	g	D	D	D	D	D	D	D	D
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	—	1	1	g	D	D	D	D	D	D	D	D
321	Wood product mfg	—	6	4	581	11 577	401	624	6 628	15 565	29 684	45 443	725
3219	Other wood product mfg	—	5	3	f	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	—	8	5	2 327	47 096	2 060	4 287	36 277	93 205	93 472	187 266	5 941
3371	Household & institutional furniture & kitchen cabinet mfg	—	8	5	2 327	47 096	2 060	4 287	36 277	93 205	93 472	187 266	5 941
33712	Household & institutional furniture mfg	—	7	5	g	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	—	6	4	g	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
NEWPORT NEWS, VA (IC)													
31-33	Manufacturing	-	131	44	24 707	898 354	19 157	38 325	574 677	1 653 589	1 646 406	3 300 476	93 324
333	Machinery mfg	1	10	6	f	D	D	D	D	D	D	D	5 134
334	Computer & electronic product mfg	-	8	4	g	D	D	D	D	D	D	D	D
3341	Computer & peripheral equipment mfg	-	2	2	g	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg	-	2	2	g	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment mfg	-	2	2	g	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	-	9	6	j	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	1	4	3	g	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine & engine parts mfg	-	3	2	g	D	D	D	D	D	D	D	D
336312	Gasoline engine & engine parts mfg	-	3	2	g	D	D	D	D	D	D	D	D
3366	Ship & boat building	-	3	3	j	D	D	D	D	D	D	D	D
33661	Ship & boat building	-	3	3	j	D	D	D	D	D	D	D	D
336611	Ship building & repairing	-	2	2	j	D	D	D	D	D	D	D	D
NORFOLK, VA (IC)													
31-33	Manufacturing	-	199	68	10 996	402 176	8 838	18 150	303 435	2 789 712	2 959 879	5 737 284	91 185
311	Food mfg	-	16	9	1 301	29 015	836	1 608	12 997	81 846	73 327	154 586	4 825
3118	Bakeries & tortilla mfg	-	8	3	f	D	D	D	D	D	D	D	D
31181	Bread & bakery product mfg	-	7	3	f	D	D	D	D	D	D	D	D
311812	Commercial bakeries ..	-	6	3	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	1	31	9	f	D	D	D	D	D	D	D	815
336	Transportation equipment mfg	-	21	14	i	D	D	D	D	D	D	D	D
3361	Motor vehicle mfg	-	1	1	g	D	D	D	D	D	D	D	D
33611	Automobile & light duty motor vehicle mfg	-	1	1	g	D	D	D	D	D	D	D	D
336112	Light truck & utility vehicle mfg	-	1	1	g	D	D	D	D	D	D	D	D
3366	Ship & boat building	1	17	13	h	D	D	D	D	D	D	D	D
33661	Ship & boat building	1	17	13	h	D	D	D	D	D	D	D	D
336611	Ship building & repairing	1	14	11	h	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	-	20	6	f	D	D	D	D	D	D	D	3 020
3399	Other miscellaneous mfg ..	-	12	1	f	D	D	D	D	D	D	D	D
33999	All other miscellaneous mfg	-	2	1	f	D	D	D	D	D	D	D	D
339999	All other miscellaneous mfg	-	2	1	f	D	D	D	D	D	D	D	D
PETERSBURG, VA (IC)													
31-33	Manufacturing	-	43	20	2 553	72 398	1 771	3 781	39 076	145 376	257 679	409 643	D
332	Fabricated metal product mfg	-	7	4	760	23 513	582	1 522	15 415	47 890	51 919	100 992	D
3329	Other fabricated metal product mfg	-	1	1	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg	-	1	1	f	D	D	D	D	D	D	D	D
332991	Ball & roller bearing mfg	-	1	1	f	D	D	D	D	D	D	D	D
PORTSMOUTH, VA (IC)													
31-33	Manufacturing	-	71	15	1 812	51 951	1 341	2 681	33 609	143 648	224 566	368 724	14 213
311	Food mfg	-	13	5	955	23 844	739	1 614	16 388	85 492	152 173	239 157	4 222
3116	Meat product mfg	-	4	3	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering & processing	-	4	3	f	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	-	4	3	f	D	D	D	D	D	D	D	D

Table 3. Industry Statistics for Counties: 1997—Con.

[Includes data for industry groups and industries with 500 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
RADFORD, VA (IC)													
31-33	Manufacturing	-	21	11	2 838	84 600	2 111	4 324	57 289	185 421	209 973	393 422	13 445
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
331	Primary metal mfg	-	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
335	Electrical equipment, appliance, & component mfg	-	2	2	f	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	2	2	f	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	-	2	2	f	D	D	D	D	D	D	D	D
335312	Motor & generator mfg	-	2	2	f	D	D	D	D	D	D	D	D
RICHMOND, VA (IC)													
31-33	Manufacturing	-	325	119	21 879	941 202	14 775	29 738	539 544	8 229 631	3 450 159	11 748 251	429 426
311	Food mfg	1	25	11	g	D	D	D	D	D	D	D	27 768
3118	Bakeries & tortilla mfg	-	15	5	f	D	D	D	D	D	D	D	D
31181	Bread & bakery product mfg	-	14	4	f	D	D	D	D	D	D	D	D
311812	Commercial bakeries ..	-	4	3	f	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	-	6	5	i	D	D	D	D	D	D	D	D
3122	Tobacco mfg	-	4	4	i	D	D	D	D	D	D	D	D
31222	Tobacco product mfg ..	-	2	2	i	D	D	D	D	D	D	D	D
312221	Cigarette mfg	-	1	1	i	D	D	D	D	D	D	D	D
322	Paper mfg	-	22	17	2 959	111 917	2 370	5 632	79 787	256 983	429 436	683 166	35 918
3222	Converted paper product mfg	-	19	14	h	D	D	D	D	D	D	D	20 152
32221	Paperboard container mfg	-	14	10	2 179	85 984	1 729	4 088	60 232	185 367	319 334	503 682	18 894
322211	Corrugated & solid fiber box mfg	-	8	5	f	D	D	D	D	D	D	D	D
322212	Folding paperboard box mfg	-	5	4	g	D	D	D	D	D	D	D	D
323	Printing & related support activities	-	69	19	g	D	D	D	D	D	D	D	12 306
3231	Printing & related support activities	-	69	19	g	D	D	D	D	D	D	D	12 306
32311	Printing	-	56	16	g	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing ..	-	30	8	g	D	D	D	D	D	D	D	9 857
325	Chemical mfg	-	16	8	1 334	51 927	689	1 668	19 504	607 149	177 582	799 929	D
3254	Pharmaceutical & medicine mfg	-	1	1	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	-	1	1	f	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	7	5	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	-	7	5	f	D	D	D	D	D	D	D	D
331	Primary metal mfg	-	1	1	f	D	D	D	D	D	D	D	D
3313	Alumina & aluminum production & processing ..	-	1	1	f	D	D	D	D	D	D	D	D
33131	Alumina & aluminum production & processing	-	1	1	f	D	D	D	D	D	D	D	D
331315	Aluminum sheet, plate, & foil mfg	-	1	1	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	45	13	g	D	D	D	D	D	D	D	4 319
333	Machinery mfg	-	21	9	f	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	7	31	8	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	-	28	5	g	D	D	D	D	D	D	D	3 476
3391	Medical equipment & supplies mfg	-	11	2	f	D	D	D	D	D	D	D	D
33911	Medical equipment & supplies mfg	-	11	2	f	D	D	D	D	D	D	D	D
339113	Surgical appliance & supplies mfg	-	4	2	f	D	D	D	D	D	D	D	D

Table 3. Industry Statistics for Counties: 1997—Con.

[Includes data for industry groups and industries with 500 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
ROANOKE, VA (IC)													
31-33	Manufacturing	-	152	58	8 489	242 893	5 819	11 449	144 136	1 213 436	967 261	2 156 333	D
311	Food mfg	-	7	6	f	D	D	D	D	D	D	D	D
315	Apparel mfg	-	5	4	f	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	4	4	f	D	D	D	D	D	D	D	D
31523	Women's & girls' cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
315233	Women's & girls' cut & sew dress mfg	-	1	1	f	D	D	D	D	D	D	D	D
322	Paper mfg	-	8	6	f	D	D	D	D	D	D	D	D
3222	Converted paper product mfg	-	8	6	f	D	D	D	D	D	D	D	D
323	Printing & related support activities	1	21	3	545	16 930	351	730	9 596	36 634	16 819	53 520	D
3231	Printing & related support activities	1	21	3	545	16 930	351	730	9 596	36 634	16 819	53 520	D
32311	Printing	1	20	3	f	D	D	D	D	D	D	D	D
325	Chemical mfg	-	7	2	f	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, & toilet preparation mfg ..	-	2	1	f	D	D	D	D	D	D	D	D
32562	Toilet preparation mfg ...	-	1	1	f	D	D	D	D	D	D	D	D
325620	Toilet preparation mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
331	Primary metal mfg	-	3	3	f	D	D	D	D	D	D	D	D
333	Machinery mfg	-	10	3	1 139	45 307	673	1 512	20 633	74 813	158 894	233 099	D
3333	Commercial & service industry machinery mfg ..	-	2	1	f	D	D	D	D	D	D	D	D
33331	Commercial & service industry machinery mfg	-	2	1	f	D	D	D	D	D	D	D	D
333314	Optical instrument & lens mfg	-	2	1	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	10	4	f	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	-	4	2	f	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	-	4	2	f	D	D	D	D	D	D	D	D
SALEM, VA (IC)													
31-33	Manufacturing	-	73	28	6 478	202 349	4 367	8 614	115 283	555 145	482 326	1 035 605	35 308
315	Apparel mfg	-	4	3	f	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	4	3	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	4	2	g	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32621	Tire mfg	-	1	1	f	D	D	D	D	D	D	D	D
326211	Tire mfg (except retreading)	-	1	1	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	2	1	g	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	1	1	g	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
335314	Relay & industrial control mfg	-	1	1	g	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	-	3	1	f	D	D	D	D	D	D	D	D
3371	Household & institutional furniture & kitchen cabinet mfg	-	2	1	f	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	-	1	1	f	D	D	D	D	D	D	D	D
337121	Upholstered household furniture mfg	-	1	1	f	D	D	D	D	D	D	D	D
SUFFOLK, VA (IC)													
31-33	Manufacturing	-	52	23	2 257	63 796	1 920	3 676	48 586	539 571	562 685	1 103 490	18 520
311	Food mfg	-	10	4	f	D	D	D	D	D	D	D	D
3119	Other food mfg	-	6	4	f	D	D	D	D	D	D	D	D
31192	Coffee & tea mfg	-	2	2	f	D	D	D	D	D	D	D	D
311920	Coffee & tea mfg	-	2	2	f	D	D	D	D	D	D	D	D

Table 3. Industry Statistics for Counties: 1997—Con.

[Includes data for industry groups and industries with 500 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	All establishments			All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
VIRGINIA BEACH, VA (IC)													
31-33	Manufacturing	1	236	48	5 806	139 250	3 913	7 339	82 114	380 394	580 765	967 231	27 005
323	Printing & related support activities.....	6	56	7	1 138	19 459	495	936	10 780	42 753	43 970	86 779	7 901
3231	Printing & related support activities.....	6	56	7	1 138	19 459	495	936	10 780	42 753	43 970	86 779	7 901
32311	Printing	6	52	7	g	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing ..	7	25	4	844	14 481	288	609	7 345	34 164	32 333	66 485	7 184
327	Nonmetallic mineral product mfg	-	8	2	540	15 621	404	903	8 798	38 344	34 545	72 797	1 771
333	Machinery mfg	-	12	5	1 026	33 199	673	1 154	17 765	131 951	270 266	404 624	9 132
3331	Agriculture, construction, & mining machinery mfg....	-	2	1	f	D	D	D	D	D	D	D	D
33311	Agricultural implement mfg	-	1	1	f	D	D	D	D	D	D	D	D
333112	Lawn & garden tractor & home lawn & garden equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	1	16	3	632	13 105	470	1 051	8 832	24 347	19 945	44 575	691
3345	Navigational, measuring, medical, & control instruments mfg	-	6	2	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	6	2	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	1	35	8	771	18 645	572	1 025	11 666	42 211	38 540	81 438	1 223
3399	Other miscellaneous mfg ..	-	21	7	691	16 764	521	947	10 729	38 419	36 217	75 240	1 006
WAYNESBORO, VA (IC)													
31-33	Manufacturing	-	31	16	4 558	160 180	2 589	6 037	81 567	452 490	356 945	802 492	50 119
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
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
325	Chemical mfg	-	2	1	g	D	D	D	D	D	D	D	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	-	1	1	g	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg ..	-	1	1	g	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg	-	1	1	g	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	3	2	g	D	D	D	D	D	D	D	D
3341	Computer & peripheral equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
WILLIAMSBURG, VA (IC)													
31-33	Manufacturing	-	14	2	g	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	-	1	1	f	D	D	D	D	D	D	D	D
3121	Beverage mfg	-	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

Table 3. Industry Statistics for Counties: 1997—Con.

[Includes data for industry groups and industries with 500 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	WINCHESTER, VA (IC)												
31-33	Manufacturing	—	43	25	6 047	196 114	4 647	9 423	130 883	791 080	648 810	1 431 331	47 066
311	Food mfg.....	2	5	3	797	22 676	619	1 267	15 723	142 873	107 621	251 241	5 917
3114	Fruit & vegetable preserving & specialty food mfg.....	9	1	1	f	D	D	D	D	D	D	D	D
31142	Fruit & vegetable canning, pickling, & drying.....	9	1	1	f	D	D	D	D	D	D	D	D
311421	Fruit & vegetable canning.....	9	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg.....	—	6	5	2 011	63 209	1 362	2 499	32 351	285 839	246 988	524 769	30 991
3261	Plastics product mfg.....	—	5	4	g	D	D	D	D	D	D	D	D
32619	Other plastics product mfg.....	—	4	3	g	D	D	D	D	D	D	D	D
326199	All other plastics product mfg.....	—	4	3	g	D	D	D	D	D	D	D	D
333	Machinery mfg.....	—	2	2	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg.....	—	2	2	g	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg....	—	1	1	f	D	D	D	D	D	D	D	D
33634	Motor vehicle brake system mfg.....	—	1	1	f	D	D	D	D	D	D	D	D
336340	Motor vehicle brake system mfg.....	—	1	1	f	D	D	D	D	D	D	D	D

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of 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.

²Industries 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: c—100 to 249 employees; e—250 to 499 employees; f—500 to 999 employees; g—1,000 to 2,499 employees; h—2,500 to 4,999 employees; i—5,000 to 9,999 employees; j—10,000 to 24,999 employees; k—25,000 to 49,999 employees; l—50,000 to 99,999 employees; m—100,000 employees or more.

Table 4. Industry Statistics for Places: 1997

[Includes data for industry groups and industries with 500 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	ALEXANDRIA, VA (IC)												
31-33	Manufacturing	2	114	23	1 907	59 448	1 230	2 441	33 774	194 752	131 827	328 058	9 535
311	Food mfg.....	3	18	6	608	11 494	366	746	6 437	37 356	30 398	68 175	1 500
323	Printing & related support activities.....	4	46	9	657	25 013	455	903	15 428	46 995	26 690	73 858	3 596
3231	Printing & related support activities.....	4	46	9	657	25 013	455	903	15 428	46 995	26 690	73 858	3 596
32311	Printing.....	4	41	9	635	24 386	435	868	14 955	45 831	26 452	72 455	D

Table 4. Industry Statistics for Places: 1997—Con.

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
ALTAVISTA, VA													
31-33	Manufacturing	-	15	8	3 364	84 580	2 867	5 885	62 893	795 492	339 210	1 133 777	27 228
311	Food mfg	-	1	1	f	D	D	D	D	D	D	D	D
3115	Dairy product mfg	-	1	1	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) mfg	-	1	1	f	D	D	D	D	D	D	D	D
311514	Dry, condensed, & evaporated dairy product mfg	-	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
337	Furniture & related product mfg	-	2	1	f	D	D	D	D	D	D	D	D
3371	Household & institutional furniture & kitchen cabinet mfg	-	2	1	f	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	-	2	1	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	-	2	1	f	D	D	D	D	D	D	D	D
ASHLAND, VA													
31-33	Manufacturing	1	27	11	836	32 630	630	1 235	21 760	89 299	93 621	183 007	D
BEDFORD, VA (IC)													
31-33	Manufacturing	-	30	12	2 278	62 216	1 788	3 606	41 856	122 441	132 363	254 317	9 740
326	Plastics & rubber products mfg	-	1	1	f	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32629	Other rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
326299	All other rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
BERRYVILLE, VA													
31-33	Manufacturing	-	5	3	g	D	D	D	D	D	D	D	D
323	Printing & related support activities	-	1	1	f	D	D	D	D	D	D	D	D
3231	Printing & related support activities	-	1	1	f	D	D	D	D	D	D	D	D
32311	Printing	-	1	1	f	D	D	D	D	D	D	D	D
323117	Book printing	-	1	1	f	D	D	D	D	D	D	D	D
BLACKSBURG, VA													
31-33	Manufacturing	-	23	7	1 910	57 822	1 501	3 012	42 572	149 272	75 351	225 330	5 281
334	Computer & electronic product mfg	-	4	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	4	1	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	4	1	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	1	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	-	1	1	f	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine & engine parts mfg	-	1	1	f	D	D	D	D	D	D	D	D
336312	Gasoline engine & engine parts mfg	-	1	1	f	D	D	D	D	D	D	D	D
BLACKSTONE, VA													
31-33	Manufacturing	-	9	6	508	7 892	457	883	6 867	29 841	37 792	64 408	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
BRIDGEWATER, VA													
31-33	Manufacturing	-	10	6	1 207	27 592	1 023	2 061	21 146	90 147	124 611	211 282	2 927
311	Food mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
3116	Meat product mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering & 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
BRISTOL, VA (IC)													
31-33	Manufacturing	-	41	22	6 954	184 362	5 554	11 462	132 773	474 903	762 484	1 222 944	33 611
311	Food mfg.....	-	5	3	f	D	D	D	D	D	D	D	D
3119	Other food mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
31191	Snack food mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
311919	Other snack food mfg..	-	2	2	f	D	D	D	D	D	D	D	D
333	Machinery mfg.....	-	4	3	h	D	D	D	D	D	D	D	D
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg.....	-	1	1	h	D	D	D	D	D	D	D	D
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg..	-	1	1	h	D	D	D	D	D	D	D	D
333415	AC & warm air heating & commercial/ industrial refrig equip mfg.....	-	1	1	h	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg.....	-	3	2	g	D	D	D	D	D	D	D	D
3352	Household appliance mfg..	-	1	1	f	D	D	D	D	D	D	D	D
33521	Small electrical appliance mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
335212	Household vacuum cleaner mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg..	-	1	1	f	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
335313	Switchgear & switchboard apparatus mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
BUENA VISTA, VA (IC)													
31-33	Manufacturing	-	10	9	f	D	D	D	D	D	D	D	9 174
CHARLOTTESVILLE, VA (IC)													
31-33	Manufacturing	1	67	19	h	D	D	D	D	D	D	D	17 387
334	Computer & electronic product mfg.....	-	7	4	g	D	D	D	D	D	D	D	D
3342	Communications equipment mfg.....	-	2	1	f	D	D	D	D	D	D	D	D
33421	Telephone apparatus mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg.....	-	4	3	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg.....	-	4	3	f	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg.....	-	4	2	g	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg..	-	2	1	g	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg.....	-	2	1	g	D	D	D	D	D	D	D	D
335314	Relay & industrial control mfg.....	-	2	1	g	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
CHESAPEAKE, VA (IC)													
31-33	Manufacturing	-	132	45	4 558	147 008	2 967	6 278	80 858	336 679	767 091	1 085 023	47 124
333	Machinery mfg	-	10	8	g	D	D	D	D	D	D	D	20 833
336	Transportation equipment mfg	-	10	4	f	D	D	D	D	D	D	D	D
3366	Ship & boat building	1	5	3	f	D	D	D	D	D	D	D	336
33661	Ship & boat building	1	5	3	f	D	D	D	D	D	D	D	336
336611	Ship building & repairing	1	5	3	f	D	D	D	D	D	D	D	336
CHRISTIANSBURG, VA													
31-33	Manufacturing	-	27	9	1 461	43 177	1 053	2 063	25 614	214 651	118 011	334 500	14 835
335	Electrical equipment, appliance, & component mfg	-	1	1	f	D	D	D	D	D	D	D	D
3351	Electric lighting equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
33512	Lighting fixture mfg	-	1	1	f	D	D	D	D	D	D	D	D
335129	Other lighting equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
COLONIAL HEIGHTS, VA (IC)													
31-33	Manufacturing	-	14	5	838	20 383	711	1 521	14 914	146 503	69 614	215 440	4 426
326	Plastics & rubber products mfg	-	2	1	f	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	2	1	f	D	D	D	D	D	D	D	D
32629	Other rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
326299	All other rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
COVINGTON, VA (IC)													
31-33	Manufacturing	-	11	6	2 615	113 429	1 842	3 721	74 022	510 850	507 122	1 004 852	D
322	Paper mfg	-	1	1	g	D	D	D	D	D	D	D	D
3221	Pulp, paper, & 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 & rubber products mfg	-	2	2	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	-	2	2	f	D	D	D	D	D	D	D	D
CULPEPER, VA													
31-33	Manufacturing	1	13	7	1 249	38 925	947	1 934	25 152	116 007	123 411	240 278	11 766
DANVILLE, VA (IC)													
31-33	Manufacturing	2	47	23	j	D	D	D	D	D	D	D	60 613
313	Textile mills	9	3	3	i	D	D	D	D	D	D	D	D
3132	Fabric mills	9	2	2	i	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills	9	2	2	i	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	9	2	2	i	D	D	D	D	D	D	D	D
315	Apparel mfg	-	3	3	g	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	2	2	f	D	D	D	D	D	D	D	D
31529	Other cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
315291	Infants' cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
321	Wood product mfg	-	4	4	f	D	D	D	D	D	D	D	3 867
326	Plastics & rubber products mfg	-	2	1	g	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	2	1	g	D	D	D	D	D	D	D	D
32621	Tire mfg	-	2	1	g	D	D	D	D	D	D	D	D
326211	Tire mfg (except retreading)	-	1	1	g	D	D	D	D	D	D	D	D
EMPORIA, VA (IC)													
31-33	Manufacturing	1	13	10	1 055	28 976	868	1 914	22 341	72 354	87 353	158 732	D
FARMVILLE, VA *													
31-33	Manufacturing	-	13	5	f	D	D	D	D	D	D	D	3 066

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
FREDERICKSBURG, VA (IC)													
31-33	Manufacturing	-	41	11	1 059	28 558	830	1 720	19 547	88 499	152 403	240 718	21 409
FRONT ROYAL, VA													
31-33	Manufacturing	-	18	6	1 467	36 305	1 325	2 419	28 231	223 055	293 754	503 036	D
322	Paper mfg	-	1	1	f	D	D	D	D	D	D	D	D
3222	Converted paper product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32223	Stationery product mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
322233	Stationery, tablet, & related product mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
GALAX, VA (IC)													
31-33	Manufacturing	-	24	13	4 460	86 840	4 042	8 132	71 815	172 696	205 575	380 240	6 970
315	Apparel mfg	-	6	2	f	D	D	D	D	D	D	D	D
3151	Apparel knitting mills	-	1	1	f	D	D	D	D	D	D	D	D
31519	Other apparel knitting mills	-	1	1	f	D	D	D	D	D	D	D	D
315191	Outerwear knitting mills	-	1	1	f	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	-	4	2	f	D	D	D	D	D	D	D	D
3272	Glass & glass product mfg ..	-	2	2	f	D	D	D	D	D	D	D	D
32721	Glass & glass product mfg	-	2	2	f	D	D	D	D	D	D	D	D
327215	Glass product mfg made of purchased glass	-	2	2	f	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	-	7	5	2 413	46 004	2 238	4 663	38 833	90 589	70 545	160 801	2 587
3371	Household & institutional furniture & kitchen cabinet mfg	-	7	5	2 413	46 004	2 238	4 663	38 833	90 589	70 545	160 801	2 587
33712	Household & institutional furniture mfg	-	7	5	2 413	46 004	2 238	4 663	38 833	90 589	70 545	160 801	2 587
337122	Nonupholstered wood household furniture mfg	-	6	5	g	D	D	D	D	D	D	D	D
HAMPTON, VA (IC)													
31-33	Manufacturing	-	80	23	4 636	123 401	3 636	6 726	81 251	422 730	556 239	970 987	27 152
331	Primary metal mfg	-	1	1	g	D	D	D	D	D	D	D	D
3315	Foundries	-	1	1	g	D	D	D	D	D	D	D	D
33152	Nonferrous metal foundries	-	1	1	g	D	D	D	D	D	D	D	D
331528	Other nonferrous foundries (except die-casting)	-	1	1	g	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	20	6	565	17 338	382	720	10 241	28 488	20 864	46 501	D
334	Computer & electronic product mfg	-	6	3	g	D	D	D	D	D	D	D	D
3341	Computer & peripheral equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
334111	Electronic computer mfg	-	1	1	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
HARRISONBURG, VA (IC)													
31-33	Manufacturing	1	38	18	3 687	102 638	2 985	6 175	73 871	254 261	472 186	725 828	19 974
311	Food mfg	-	6	5	557	12 190	512	1 048	10 187	43 297	280 946	323 861	2 180
333	Machinery mfg	-	2	2	f	D	D	D	D	D	D	D	D
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	-	1	1	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
333415	AC & warm air heating & commercial/ industrial refrig equip mfg	-	1	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	9	2	2	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	9	2	2	f	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts mfg	9	1	1	f	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts mfg	9	1	1	f	D	D	D	D	D	D	D	D
HERNDON, VA													
31-33	Manufacturing	-	34	7	1 301	49 910	679	1 365	19 723	190 754	139 456	336 984	10 494
334	Computer & electronic product mfg	-	7	5	793	35 177	359	677	11 758	108 391	87 119	200 856	6 042
3342	Communications equipment mfg	-	2	2	f	D	D	D	D	D	D	D	D
33421	Telephone apparatus mfg	-	2	2	f	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	-	2	2	f	D	D	D	D	D	D	D	D
HOPEWELL, VA (IC)													
31-33	Manufacturing	1	19	8	2 907	147 431	2 191	4 718	96 057	743 916	607 369	1 328 058	80 406
325	Chemical mfg	1	7	6	g	D	D	D	D	D	D	D	D
3251	Basic chemical mfg	-	6	5	1 579	80 842	1 214	2 556	52 103	440 867	402 548	826 178	D
32519	Other basic organic chemical mfg	-	3	3	g	D	D	D	D	D	D	D	D
325199	All other basic organic chemical mfg	-	3	3	g	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32611	Unsupported plastics film, sheet, & bag mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
326113	Unsupported plastics film & sheet (except packaging) mfg	-	1	1	f	D	D	D	D	D	D	D	D
LEBANON, VA													
31-33	Manufacturing	-	11	5	1 321	24 989	1 128	2 537	19 393	58 811	62 001	120 734	4 639
315	Apparel mfg	-	3	3	f	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	3	3	f	D	D	D	D	D	D	D	D
31521	Cut & sew apparel contractors	-	2	2	f	D	D	D	D	D	D	D	D
315212	Women's, girls', & infants' cut & sew apparel contractors ..	-	2	2	f	D	D	D	D	D	D	D	D
LURAY, VA													
31-33	Manufacturing	-	7	3	1 534	24 878	1 172	1 856	16 143	138 183	141 998	281 267	5 433
315	Apparel mfg	-	1	1	g	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	1	1	g	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	-	1	1	g	D	D	D	D	D	D	D	D
315224	Men's & boys' cut & sew trouser, slack, & jean mfg	-	1	1	g	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
LYNCHBURG, VA (IC)													
31-33	Manufacturing	-	117	52	12 535	481 093	8 365	16 189	257 097	1 602 612	1 506 207	3 096 355	168 636
322	Paper mfg	-	3	2	f	D	D	D	D	D	D	D	D
323	Printing & related support activities	-	12	3	f	D	D	D	D	D	D	D	D
3231	Printing & related support activities	-	12	3	f	D	D	D	D	D	D	D	D
32311	Printing	-	9	3	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 mfg	-	7	6	g	D	D	D	D	D	D	D	D
3251	Basic chemical mfg	-	1	1	g	D	D	D	D	D	D	D	D
32518	Other basic inorganic chemical mfg	-	1	1	g	D	D	D	D	D	D	D	D
325188	All other basic inorganic chemical mfg	-	1	1	g	D	D	D	D	D	D	D	D
331	Primary metal mfg	-	2	2	g	D	D	D	D	D	D	D	D
3315	Foundries	-	2	2	g	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries	-	2	2	g	D	D	D	D	D	D	D	D
331511	Iron foundries	-	2	2	g	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	26	8	1 434	61 872	816	1 813	29 309	128 697	67 322	189 196	7 298
333	Machinery mfg	-	12	6	1 289	56 738	674	1 643	25 051	127 636	80 259	211 296	6 461
3339	Other general-purpose machinery mfg	-	5	4	f	D	D	D	D	D	D	D	D
33392	Material handling equipment mfg	-	3	3	f	D	D	D	D	D	D	D	D
333922	Conveyor & conveying equipment mfg	-	3	3	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	6	5	h	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	-	1	1	h	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg	-	1	1	h	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	-	1	1	h	D	D	D	D	D	D	D	D
MANASSAS, VA (IC)													
31-33	Manufacturing	-	34	11	2 822	188 529	582	1 254	20 223	594 660	199 283	791 561	D
334	Computer & electronic product mfg	-	3	2	g	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	2	1	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	2	1	g	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	1	1	g	D	D	D	D	D	D	D	D
MARION, VA													
31-33	Manufacturing	-	8	3	f	D	D	D	D	D	D	D	1 298

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
MARTINSVILLE, VA (IC)													
31-33	Manufacturing	-	39	24	8 726	203 035	7 241	14 000	146 246	345 425	372 898	724 148	17 535
315	Apparel mfg	-	5	4	4 847	115 564	4 028	7 550	84 929	171 750	165 196	342 070	D
3151	Apparel knitting mills	-	1	1	g	D	D	D	D	D	D	D	D
31519	Other apparel knitting mills	-	1	1	g	D	D	D	D	D	D	D	D
315191	Outerwear knitting mills	-	1	1	g	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	4	3	h	D	D	D	D	D	D	D	D
31521	Cut & sew apparel contractors	-	3	2	f	D	D	D	D	D	D	D	D
315211	Men's & boys' cut & sew apparel contractors	-	3	2	f	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	-	1	1	g	D	D	D	D	D	D	D	D
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	-	1	1	g	D	D	D	D	D	D	D	D
321	Wood product mfg	-	6	4	581	11 577	401	624	6 628	15 565	29 684	45 443	725
3219	Other wood product mfg ...	-	5	3	f	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	-	8	5	2 327	47 096	2 060	4 287	36 277	93 205	93 472	187 266	5 941
3371	Household & institutional furniture & kitchen cabinet mfg	-	8	5	2 327	47 096	2 060	4 287	36 277	93 205	93 472	187 266	5 941
33712	Household & institutional furniture mfg	-	7	5	g	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	-	6	4	g	D	D	D	D	D	D	D	D
NEWPORT NEWS, VA (IC)													
31-33	Manufacturing	-	131	44	24 707	898 354	19 157	38 325	574 677	1 653 589	1 646 406	3 300 476	93 324
333	Machinery mfg	1	10	6	f	D	D	D	D	D	D	D	5 134
334	Computer & electronic product mfg	-	8	4	g	D	D	D	D	D	D	D	D
3341	Computer & peripheral equipment mfg	-	2	2	g	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg	-	2	2	g	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment mfg	-	2	2	g	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	-	9	6	j	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	1	4	3	g	D	D	D	D	D	D	D	D
33631	Motor vehicle gasoline engine & engine parts mfg	-	3	2	g	D	D	D	D	D	D	D	D
336312	Gasoline engine & engine parts mfg	-	3	2	g	D	D	D	D	D	D	D	D
3366	Ship & boat building	-	3	3	j	D	D	D	D	D	D	D	D
33661	Ship & boat building	-	3	3	j	D	D	D	D	D	D	D	D
336611	Ship building & repairing	-	2	2	j	D	D	D	D	D	D	D	D
NORFOLK, VA (IC)													
31-33	Manufacturing	-	199	68	10 996	402 176	8 838	18 150	303 435	2 789 712	2 959 879	5 737 284	91 185
311	Food mfg	-	16	9	1 301	29 015	836	1 608	12 997	81 846	73 327	154 586	4 825
3118	Bakeries & tortilla mfg	-	8	3	f	D	D	D	D	D	D	D	D
31181	Bread & bakery product mfg	-	7	3	f	D	D	D	D	D	D	D	D
311812	Commercial bakeries ..	-	6	3	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	1	31	9	f	D	D	D	D	D	D	D	815
336	Transportation equipment mfg	-	21	14	i	D	D	D	D	D	D	D	D
3361	Motor vehicle mfg	-	1	1	g	D	D	D	D	D	D	D	D
33611	Automobile & light duty motor vehicle mfg	-	1	1	g	D	D	D	D	D	D	D	D
336112	Light truck & utility vehicle mfg	-	1	1	g	D	D	D	D	D	D	D	D
3366	Ship & boat building	1	17	13	h	D	D	D	D	D	D	D	D
33661	Ship & boat building	1	17	13	h	D	D	D	D	D	D	D	D
336611	Ship building & repairing	1	14	11	h	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	NORFOLK, VA (IC)— Con. Manufacturing— Con.												
339	Miscellaneous mfg.....	-	20	6	f	D	D	D	D	D	D	D	3 020
3399	Other miscellaneous mfg ..	-	12	1	f	D	D	D	D	D	D	D	D
33999	All other miscellaneous mfg ..	-	2	1	f	D	D	D	D	D	D	D	D
339999	All other miscellaneous mfg ..	-	2	1	f	D	D	D	D	D	D	D	D
31-33	ORANGE, VA Manufacturing	4	13	5	h	D	493	820	9 112	24 762	23 581	48 935	3 675
31-33	PETERSBURG, VA (IC) Manufacturing	-	43	20	h	D	1 771	3 781	39 076	145 376	257 679	409 643	D
332	Fabricated metal product mfg	-	7	4	f	D	582	1 522	15 415	47 890	51 919	100 992	D
3329	Other fabricated metal product mfg	-	1	1	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg	-	1	1	f	D	D	D	D	D	D	D	D
332991	Ball & roller bearing mfg	-	1	1	f	D	D	D	D	D	D	D	D
31-33	PORTSMOUTH, VA (IC) Manufacturing	-	71	15	h	D	1 812	2 681	33 609	143 648	224 566	368 724	14 213
311	Food mfg	-	13	5	f	D	955	1 614	16 388	85 492	152 173	239 157	4 222
3116	Meat product mfg	-	4	3	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering & processing	-	4	3	f	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	-	4	3	f	D	D	D	D	D	D	D	D
31-33	PULASKI, VA Manufacturing	-	13	9	h	D	D	D	D	D	D	D	12 982
313	Textile mills	-	2	2	f	D	D	D	D	D	D	D	D
315	Apparel mfg	-	1	1	g	D	D	D	D	D	D	D	D
3151	Apparel knitting mills	-	1	1	g	D	D	D	D	D	D	D	D
31511	Hosiery & sock mills	-	1	1	g	D	D	D	D	D	D	D	D
315119	Other hosiery & sock mills	-	1	1	g	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	-	4	3	f	D	D	D	D	D	D	D	D
3371	Household & institutional furniture & kitchen cabinet mfg	-	4	3	f	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	-	4	3	f	D	D	D	D	D	D	D	D
337122	Nonupholstered wood household furniture mfg	-	3	2	f	D	D	D	D	D	D	D	D
31-33	RADFORD, VA (IC) Manufacturing	-	21	11	h	D	2 838	4 324	57 289	185 421	209 973	393 422	13 445
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
331	Primary metal mfg	-	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
335	Electrical equipment, appliance, & component mfg	-	2	2	f	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	2	2	f	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	-	2	2	f	D	D	D	D	D	D	D	D
335312	Motor & generator mfg	-	2	2	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)					
RICHMOND, VA (IC)														
31-33	Manufacturing	-	325	119	21 879	941 202	14 775	29 738	539 544	8 229 631	3 450 159	11 748 251	429 426	
311	Food mfg	1	25	11	g	D	D	D	D	D	D	D	27 768	
3118	Bakeries & tortilla mfg	-	15	5	f	D	D	D	D	D	D	D	D	
31181	Bread & bakery product mfg	-	14	4	f	D	D	D	D	D	D	D	D	
311812	Commercial bakeries	-	4	3	f	D	D	D	D	D	D	D	D	
312	Beverage & tobacco product mfg	-	6	5	i	D	D	D	D	D	D	D	D	
3122	Tobacco mfg	-	4	4	i	D	D	D	D	D	D	D	D	
31222	Tobacco product mfg	-	2	2	i	D	D	D	D	D	D	D	D	
312221	Cigarette mfg	-	1	1	i	D	D	D	D	D	D	D	D	
322	Paper mfg	-	22	17		2 959	111 917	2 370	5 632	79 787	256 983	429 436	683 166	35 918
3222	Converted paper product mfg	-	19	14	h	D	D	D	D	D	D	D	20 152	
32221	Paperboard container mfg	-	14	10		2 179	85 984	1 729	4 088	60 232	185 367	319 334	503 682	18 894
322211	Corrugated & solid fiber box mfg	-	8	5	f	D	D	D	D	D	D	D	D	
322212	Folding paperboard box mfg	-	5	4	g	D	D	D	D	D	D	D	D	
323	Printing & related support activities	-	69	19	g	D	D	D	D	D	D	D	12 306	
3231	Printing & related support activities	-	69	19	g	D	D	D	D	D	D	D	12 306	
32311	Printing	-	56	16	g	D	D	D	D	D	D	D	D	
323110	Commercial lithographic printing	-	30	8	g	D	D	D	D	D	D	D	9 857	
325	Chemical mfg	-	16	8		1 334	51 927	689	1 668	19 504	607 149	177 582	799 929	D
3254	Pharmaceutical & medicine mfg	-	1	1	f	D	D	D	D	D	D	D	D	
32541	Pharmaceutical & medicine mfg	-	1	1	f	D	D	D	D	D	D	D	D	
325412	Pharmaceutical preparation mfg	-	1	1	f	D	D	D	D	D	D	D	D	
326	Plastics & rubber products mfg	-	7	5	f	D	D	D	D	D	D	D	D	
3261	Plastics product mfg	-	7	5	f	D	D	D	D	D	D	D	D	
331	Primary metal mfg	-	1	1	f	D	D	D	D	D	D	D	D	
3313	Alumina & aluminum production & processing	-	1	1	f	D	D	D	D	D	D	D	D	
33131	Alumina & aluminum production & processing	-	1	1	f	D	D	D	D	D	D	D	D	
331315	Aluminum sheet, plate, & foil mfg	-	1	1	f	D	D	D	D	D	D	D	D	
332	Fabricated metal product mfg	-	45	13	g	D	D	D	D	D	D	D	4 319	
333	Machinery mfg	-	21	9	f	D	D	D	D	D	D	D	D	
337	Furniture & related product mfg	7	31	8	f	D	D	D	D	D	D	D	D	
339	Miscellaneous mfg	-	28	5	g	D	D	D	D	D	D	D	3 476	
3391	Medical equipment & supplies mfg	-	11	2	f	D	D	D	D	D	D	D	D	
33911	Medical equipment & supplies mfg	-	11	2	f	D	D	D	D	D	D	D	D	
339113	Surgical appliance & supplies mfg	-	4	2	f	D	D	D	D	D	D	D	D	
ROANOKE, VA (IC)														
31-33	Manufacturing	-	152	58	8 489	242 893	5 819	11 449	144 136	1 213 436	967 261	2 156 333	D	
311	Food mfg	-	7	6	f	D	D	D	D	D	D	D	D	
315	Apparel mfg	-	5	4	f	D	D	D	D	D	D	D	D	
3152	Cut & sew apparel mfg	-	4	4	f	D	D	D	D	D	D	D	D	
31523	Women's & girls' cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D	
315233	Women's & girls' cut & sew dress mfg	-	1	1	f	D	D	D	D	D	D	D	D	
322	Paper mfg	-	8	6	f	D	D	D	D	D	D	D	D	
3222	Converted paper product mfg	-	8	6	f	D	D	D	D	D	D	D	D	
323	Printing & related support activities	1	21	3		545	16 930	351	730	9 596	36 634	16 819	53 520	D
3231	Printing & related support activities	1	21	3		545	16 930	351	730	9 596	36 634	16 819	53 520	D
32311	Printing	1	20	3	f	D	D	D	D	D	D	D	D	

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ROANOKE, VA (IC)—Con.													
31-33	Manufacturing—Con.												
325	Chemical mfg	-	7	2	f	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, & toilet preparation mfg ..	-	2	1	f	D	D	D	D	D	D	D	D
32562	Toilet preparation mfg ...	-	1	1	f	D	D	D	D	D	D	D	D
325620	Toilet preparation mfg .	-	1	1	f	D	D	D	D	D	D	D	D
331	Primary metal mfg	-	3	3	f	D	D	D	D	D	D	D	D
333	Machinery mfg	-	10	3	1 139	45 307	673	1 512	20 633	74 813	158 894	233 099	D
3333	Commercial & service industry machinery mfg ..	-	2	1	f	D	D	D	D	D	D	D	D
33331	Commercial & service industry machinery mfg	-	2	1	f	D	D	D	D	D	D	D	D
333314	Optical instrument & lens mfg	-	2	1	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	10	4	f	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	-	4	2	f	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	-	4	2	f	D	D	D	D	D	D	D	D
ROCKY MOUNT, VA													
31-33	Manufacturing	-	26	13	2 986	76 998	2 259	5 066	49 332	168 118	175 522	333 925	11 226
313	Textile mills	-	2	2	f	D	D	D	D	D	D	D	D
321	Wood product mfg	1	12	6	1 446	42 284	1 006	2 675	24 536	73 094	82 937	151 384	D
3219	Other wood product mfg ...	-	7	3	1 245	31 922	848	2 331	20 669	53 168	40 564	92 523	D
32191	Millwork	-	2	1	g	D	D	D	D	D	D	D	D
321911	Wood window & door mfg	-	1	1	g	D	D	D	D	D	D	D	D
SALEM, VA (IC)													
31-33	Manufacturing	-	73	28	6 478	202 349	4 367	8 614	115 283	555 145	482 326	1 035 605	35 308
315	Apparel mfg	-	4	3	f	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	4	3	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	4	2	g	D	D	D	D	D	D	D	D
3262	Rubber product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32621	Tire mfg	-	1	1	f	D	D	D	D	D	D	D	D
326211	Tire mfg (except retreading)	-	1	1	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	2	1	g	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	1	1	g	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
335314	Relay & industrial control mfg	-	1	1	g	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	-	3	1	f	D	D	D	D	D	D	D	D
3371	Household & institutional furniture & kitchen cabinet mfg	-	2	1	f	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	-	1	1	f	D	D	D	D	D	D	D	D
337121	Upholstered household furniture mfg	-	1	1	f	D	D	D	D	D	D	D	D
SMITHFIELD, VA													
31-33	Manufacturing	-	6	4	h	D	D	D	D	D	D	D	D
311	Food mfg	-	4	4	h	D	D	D	D	D	D	D	D
3116	Meat product mfg	-	4	4	h	D	D	D	D	D	D	D	D
31161	Animal slaughtering & processing	-	4	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

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	SOUTH BOSTON, VA *												
31-33	Manufacturing	-	26	11	2 394	54 090	2 157	4 028	46 614	126 800	180 187	306 895	6 263
315	Apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	-	1	1	f	D	D	D	D	D	D	D	D
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	2	2	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	-	2	2	f	D	D	D	D	D	D	D	D
	SOUTH HILL, VA												
31-33	Manufacturing	1	20	10	989	24 184	856	1 758	18 584	65 436	99 011	164 472	11 609
	STRASBURG, VA												
31-33	Manufacturing	4	7	4	1 982	61 950	1 602	3 521	49 333	155 505	136 985	293 077	10 429
323	Printing & related support activities	9	1	1	f	D	D	D	D	D	D	D	D
3231	Printing & related support activities	9	1	1	f	D	D	D	D	D	D	D	D
32311	Printing	9	1	1	f	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing ..	9	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	1	1	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	-	1	1	f	D	D	D	D	D	D	D	D
326199	All other plastics product mfg	-	1	1	f	D	D	D	D	D	D	D	D
	SUFFOLK, VA (IC)												
31-33	Manufacturing	-	52	23	2 257	63 796	1 920	3 676	48 586	539 571	562 685	1 103 490	18 520
311	Food mfg	-	10	4	f	D	D	D	D	D	D	D	D
3119	Other food mfg	-	6	4	f	D	D	D	D	D	D	D	D
31192	Coffee & tea mfg	-	2	2	f	D	D	D	D	D	D	D	D
311920	Coffee & tea mfg	-	2	2	f	D	D	D	D	D	D	D	D
	VINTON, VA												
31-33	Manufacturing	-	12	2	f	D	D	D	D	D	D	D	1 331
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
	VIRGINIA BEACH, VA (IC)												
31-33	Manufacturing	1	236	48	5 806	139 250	3 913	7 339	82 114	380 394	580 765	967 231	27 005
323	Printing & related support activities	6	56	7	1 138	19 459	495	936	10 780	42 753	43 970	86 779	7 901
3231	Printing & related support activities	6	56	7	1 138	19 459	495	936	10 780	42 753	43 970	86 779	7 901
32311	Printing	6	52	7	g	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing ..	7	25	4	844	14 481	288	609	7 345	34 164	32 333	66 485	7 184
327	Nonmetallic mineral product mfg	-	8	2	540	15 621	404	903	8 798	38 344	34 545	72 797	1 771
333	Machinery mfg	-	12	5	1 026	33 199	673	1 154	17 765	131 951	270 266	404 624	9 132
3331	Agriculture, construction, & mining machinery mfg	-	2	1	f	D	D	D	D	D	D	D	D
33311	Agricultural implement mfg	-	1	1	f	D	D	D	D	D	D	D	D
333112	Lawn & garden tractor & home lawn & garden equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	1	16	3	632	13 105	470	1 051	8 832	24 347	19 945	44 575	691
3345	Navigational, measuring, medical, & control instruments mfg	-	6	2	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	6	2	f	D	D	D	D	D	D	D	D

Table 4. Industry Statistics for Places: 1997—Con.

[Includes data for industry groups and industries with 500 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	VIRGINIA BEACH, VA (IC)—Con.												
	Manufacturing—Con.												
339	Miscellaneous mfg.....	1	35	8	771	18 645	572	1 025	11 666	42 211	38 540	81 438	1 223
3399	Other miscellaneous mfg ..	-	21	7	691	16 764	521	947	10 729	38 419	36 217	75 240	1 006
	WAYNESBORO, VA (IC)												
31-33	Manufacturing	-	31	16	4 558	160 180	2 589	6 037	81 567	452 490	356 945	802 492	50 119
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
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
325	Chemical mfg	-	2	1	g	D	D	D	D	D	D	D	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	-	1	1	g	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg ..	-	1	1	g	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg	-	1	1	g	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg.....	-	3	2	g	D	D	D	D	D	D	D	D
3341	Computer & peripheral equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
	WEST POINT, VA												
31-33	Manufacturing	-	7	4	g	D	D	D	D	D	D	D	D
322	Paper mfg	-	2	1	f	D	D	D	D	D	D	D	D
3221	Pulp, paper, & 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
	WILLIAMSBURG, VA (IC)												
31-33	Manufacturing	-	14	2	g	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	-	1	1	f	D	D	D	D	D	D	D	D
3121	Beverage mfg	-	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
	WINCHESTER, VA (IC)												
31-33	Manufacturing	-	43	25	6 047	196 114	4 647	9 423	130 883	791 080	648 810	1 431 331	47 066
311	Food mfg	2	5	3	797	22 676	619	1 267	15 723	142 873	107 621	251 241	5 917
3114	Fruit & vegetable preserving & specialty food mfg	9	1	1	f	D	D	D	D	D	D	D	D
31142	Fruit & vegetable canning, pickling, & drying	9	1	1	f	D	D	D	D	D	D	D	D
311421	Fruit & vegetable canning	9	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	6	5	2 011	63 209	1 362	2 499	32 351	285 839	246 988	524 769	30 991
3261	Plastics product mfg	-	5	4	g	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	-	4	3	g	D	D	D	D	D	D	D	D
326199	All other plastics product mfg.....	-	4	3	g	D	D	D	D	D	D	D	D
333	Machinery mfg	-	2	2	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	-	2	2	g	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	-	1	1	f	D	D	D	D	D	D	D	D
33634	Motor vehicle brake system mfg	-	1	1	f	D	D	D	D	D	D	D	D
336340	Motor vehicle brake system mfg	-	1	1	f	D	D	D	D	D	D	D	D

Table 4. Industry Statistics for Places: 1997—Con.

[Includes data for industry groups and industries with 500 employees or more. For information on geographic areas followed by * and explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	WYTHEVILLE, VA												
31-33	Manufacturing	-	28	13	1 894	46 592	1 565	3 099	34 015	147 903	109 689	254 905	9 046
326	Plastics & rubber products mfg	-	4	3	571	15 162	437	938	9 734	53 203	27 913	81 252	2 613
332	Fabricated metal product mfg	-	7	4	728	18 071	607	1 205	13 555	43 276	34 807	77 491	D

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of 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.

²Industries 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: c-100 to 249 employees; e-250 to 499 employees; f-500 to 999 employees; g-1,000 to 2,499 employees; h-2,500 to 4,999 employees; i-5,000 to 9,999 employees; j-10,000 to 24,999 employees; k-25,000 to 49,999 employees; l-50,000 to 99,999 employees; m-100,000 employees or more.

Table 5. Detailed Statistics for the State: 1997

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

Item	Value	Item	Value
VIRGINIA		VIRGINIA—Con.	
Companies ¹ number..	5 455	Quantity of electricity purchased for heat and power 1,000 kWh..	18 038 824
All establishments number..	5 986	Quantity of electricity generated less sold for heat and power . . . 1,000 kWh..	1 690 829
Establishments with 1 to 19 employees number..	3 944	Total value of shipments \$1,000..	83 814 009
Establishments with 20 to 99 employees number..	1 287	Value of resales \$1,000..	2 732 344
Establishments with 100 employees or more number..	755	Value added \$1,000..	43 563 006
All employees number..	370 595	Total inventories, beginning of year \$1,000..	9 913 960
Total compensation ² \$1,000..	14 529 654	Finished goods inventories, beginning of year \$1,000..	2 745 566
Annual payroll \$1,000..	11 557 793	Work-in-process inventories, beginning of year \$1,000..	2 173 257
Total fringe benefits \$1,000..	2 971 861	Materials and supplies inventories, beginning of year \$1,000..	4 995 137
Production workers, average for year number..	279 682	Total inventories, end of year \$1,000..	10 330 372
Production workers on March 12 number..	278 551	Finished goods inventories, end of year \$1,000..	2 904 672
Production workers on May 12 number..	279 339	Work-in-process inventories, end of year \$1,000..	2 140 875
Production workers on August 12 number..	279 663	Materials and supplies inventories, end of year \$1,000..	5 284 825
Production workers on November 12 number..	281 175	Gross book value of total assets at beginning of year \$1,000..	31 173 890
Production-worker hours 1,000..	559 635	Total capital expenditures (new and used) \$1,000..	3 425 293
Production-worker wages \$1,000..	7 412 163	Capital expenditures for buildings and other structures (new and used) \$1,000..	566 696
Total cost of materials \$1,000..	40 367 360	Capital expenditures for machinery and equipment (new and used) \$1,000..	2 858 597
Cost of materials, parts, containers, etc., consumed \$1,000..	35 925 511	Total retirements ² \$1,000..	870 025
Cost of resales \$1,000..	2 233 553	Gross book value of total assets at end of year \$1,000..	33 729 158
Cost of fuels \$1,000..	486 297	Total depreciation during year ² \$1,000..	1 999 074
Cost of purchased electricity \$1,000..	771 281	Total rental payments ² \$1,000..	496 054
Cost of contract work \$1,000..	950 718	Buildings and other structures rental payments ² \$1,000..	219 073
		Machinery and equipment rental payments ² \$1,000..	276 981

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

²These items are collected in the ASM and estimated for the remaining establishments.

Appendix A.

Explanation of Terms

BEGINNING- AND END-OF-YEAR INVENTORIES

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

Inventory Data by Stage of Fabrication

Total inventories and three detailed components (1) finished goods, (2) work-in-process, and (3) materials, supplies, fuels, etc., were collected.

When using inventory data by stage of fabrication for “all industries” and at the three-digit subsector level, it should be noted that an item treated as a finished product by an establishment in one industry may be reported as a raw material by an establishment in a different industry. For example, the finished-product inventories of a steel mill would be reported as raw materials by a stamping plant. Such differences are present in the inventory figures by stage of fabrication shown for all publication levels.

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.

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 paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication (the value of finished manufactures) tends to approximate two-thirds of the total value of products reported in the survey.

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

Even when no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual

manufacturing industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs of value of shipments, both among industries and within the same industry.

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

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.

EMPLOYEES

This item includes all full-time and part-time employees on the payrolls of operating manufacturing establishments during any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employees" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average for the payroll periods including the 12th of March, May, August, and November.

Production Workers

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

All Other Employees

This item covers nonproduction employees of the manufacturing establishment including those engaged in factory supervision above the line-supervisor level. It includes sales (including driver-salespersons), sales delivery (highway 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.

FRINGE BENEFITS

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.

GROSS BOOK VALUE OF DEPRECIABLE ASSETS AT BEGINNING OF YEAR (BOY) AND END OF YEAR (EOY)

Total value of depreciable assets is collected on all census forms. It shows the value of depreciable assets for the beginning of year and end of year. The data encompass all fixed depreciable assets on the books of establishments. The values shown (book value) represent the actual cost of assets at the time they were acquired, including all costs incurred in making the assets usable (such as transportation and installation). Included are all buildings, structures, machinery, and equipment (production, office, and transportation equipment) for which depreciation reserves are maintained. Excluded are nondepreciable capital assets including inventories and intangible assets, such as timber and mineral rights.

The definition of fixed depreciable assets is consistent with the definition of capital expenditures. For example, expenditures include actual capital outlays during the year rather than the final value of equipment put in place and buildings completed during the year. Accordingly, the value of assets at the end of the year includes the value of construction in progress.

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

NUMBER OF ESTABLISHMENTS AND COMPANIES

A separate report was required for each manufacturing establishment (plant) with one employee or more. An establishment is defined as a single physical location

where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

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

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

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).

PRODUCTION-WORKER HOURS

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

QUANTITY OF ELECTRIC ENERGY CONSUMED 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.

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.

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.

TOTAL CAPITAL EXPENDITURES (NEW AND USED)

For establishments in operation and any known plants under construction, manufacturers were asked to report their new and used expenditures for (1) permanent additions and major alterations to manufacturing establishments and (2) machinery and equipment used for replacement and additions to plant capacity if they were of the type for which depreciation accounts were ordinarily maintained.

Totals for expenditures include the costs of assets leased from nonmanufacturing concerns through capital leases. New facilities owned by the Federal Government but operated under contract by private companies and

plant and equipment furnished to the manufacturer by communities and nonprofit organizations are excluded. Also excluded are expenditures for land and cost of maintenance and repairs charged as current operating expenses.

For any equipment or structure transferred for the use of the reporting establishment by the parent company or one of its subsidiaries, the value at which it was transferred to the establishment was to be reported. If an establishment changed ownership during the year, the cost of the fixed assets (building and equipment) was to be reported.

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.

VALUE OF SHIPMENTS

This item covers the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts, such as receipts for contract work performed for others, installation and repair, sales of scrap, and sales of products bought and sold without further processing. Included are all 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 brought and sold without further manufacture, processing, or assembly.
3. Other miscellaneous receipts—Such as repair work, installation, sales of scrap, etc.

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 paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication (the value of finished manufactures) tends to approximate two-thirds of the total value of products reported in the annual survey.

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

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

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

Appendix B.

NAICS Codes, Titles, and Descriptions

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; 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 NAICS industry group includes establishments classified in NAICS Industry 31111, Animal Food Manufacturing.

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.

The data published with NAICS code 311111 include the following SIC industry:

2047 Dog and cat food

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.

The data published with NAICS code 311119 include the following SIC industry:

2048 Prepared feeds and feed ingredients for animals and fowls, except dogs and cats (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311119 do not include establishments primarily engaged in the custom grinding of grain. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3112 Grain and Oilseed Milling

This NAICS industry group includes establishments classified in the following NAICS Industries: 31121, Flour Milling and Malt Manufacturing; 31122, Starch and Vegetable Fats and Oils Manufacturing; and 31123, Breakfast Cereal Manufacturing.

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

The data published with NAICS code 311211 include the following SIC industries:

2034 Dehydrated fruits, vegetables, and soup mixes (pt)

2041 Flour and other grain mill products

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.

The data published with NAICS code 311212 include the following SIC industry:

2044 Rice milling

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311212 do not include rice mills primarily engaged in packaging uncooked rice with other ingredients. The NAICS definitions will be fully implemented with the 2002 Economic Census.

311213 Malt Manufacturing

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

The data published with NAICS code 311213 include the following SIC industry:

2083 Malt

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).

The data published with NAICS code 311221 include the following SIC industry:

2046 Wet corn milling

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.

The data published with NAICS code 311222 include the following SIC industry:

2075 Soybean oil mills (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311222 do not include establishments primarily engaged in the processing of

soybean oil from soybeans crushed in the same establishment. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 311223 include the following SIC industries:

2074 Cottonseed oil mills (pt)

2076 Vegetable oil mills, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311223 do not include establishments primarily engaged in the processing of vegetable oils, except soybean oil, from oilseeds crushed in the same establishment. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 311225 include the following SIC industries:

2074 Cottonseed oil mills (pt)

2075 Soybean oil mills (pt)

2076 Vegetable oil mills, n.e.c. (pt)

2077 Animal and marine fats and oil (pt)

2079 Shortening and cooking oils

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311225 do not include establishments primarily engaged in refining and/or blending corn oil from purchased oil. The data include establishments primarily engaged in the manufacture of vegetable oil foots. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 311230 include the following SIC industry:

2043 Cereal breakfast foods (pt)

3113 Sugar and Confectionery Product Manufacturing

This industry group comprises (1) establishments that 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.

The data published with NAICS code 311312 include the following SIC industry:

2061 Raw cane sugar

311312 Cane Sugar Refining

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

The data published with NAICS code 311312 include the following SIC industry:

2062 Cane sugar refining

311313 Beet Sugar Manufacturing

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

The data published with NAICS code 311313 include the following SIC industry:

2063 Beet sugar

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.

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.

The data published with NAICS code 311320 include the following SIC industries:

2066 Chocolate and cocoa products

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.

The data published with NAICS code 311330 include the following SIC industries:

2064 Candy and other confectionery products and chewing gum (pt)

5441 Candy, nut, and confectionery stores (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311330 do not include establishments primarily engaged in the manufacture of chocolate products made from purchased chocolate. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3113301 Chocolate and Chocolate-type Confectionery Retail – Manufacturer

Establishments primarily engaged in the manufacture of consumer-type chocolate and chocolate-type confectionery products not for immediate consumption made on the premises from chocolate produced elsewhere.

3113302 Chocolate and Chocolate-type Confectionery – Manufacturer

Establishments primarily engaged in the manufacture of consumer-type chocolate and chocolate-type confectionery products from chocolate produced 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.

The data published with NAICS code 311340 include the following SIC industries:

2064 Candy and other confectionery products and chewing gum (pt)

2099 Food preparations, n.e.c. (pt)

5441 Candy, nut, and confectionery stores (pt)

3113401 Nonchocolate-Type Confectionery Products Retail – Manufacturer

Establishments primarily engaged in the manufacture of consumer-type nonchocolate confectionery products, excluding cough drops, medicated candy, roasted peanuts, unsweetened popcorn and fountain syrup, not for immediate consumption made on the premises.

3113402 Nonchocolate-Type Confectionery Products – Manufacturer

Establishments primarily engaged in the manufacture of consumer-type nonchocolate confectionery products, excluding cough drops, medicated candy, roasted peanuts, unsweetened popcorn and fountain syrup.

3114 Fruit and Vegetable Preserving and Specialty Food Manufacturing

This industry group includes (1) establishments 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.

The data published with NAICS code 311411 include the following SIC industry:

2037 Frozen fruits and vegetables

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.

The data published with NAICS code 311412 include the following SIC industry:

2038 Frozen specialties, n.e.c.

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.

The data published with NAICS code 311421 include the following SIC industries:

2033 Canned fruits and vegetables

2035 Pickles, sauces, and salad dressings (pt)

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.

The data published with NAICS code 311422 include the following SIC industry:

2032 Canned specialties (pt)

311423 Dried and Dehydrated Food Manufacturing

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

The data published with NAICS code 311423 include the following SIC industries:

2034 Dehydrated fruits, vegetables, and soups (pt)

2099 Food preparations, n.e.c. (pt)

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.

The data published with NAICS code 311511 include the following SIC industry:

2026 Fluid milk

311512 Creamery Butter Manufacturing

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

The data published with NAICS code 311512 include the following SIC industry:

2021 Creamery butter

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.

The data published with NAICS code 311513 include the following SIC industry:

2022 Cheese, natural and processed

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.

The data published with NAICS code 311514 include the following SIC industry:

2023 Dry, condensed and evaporated milk

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311514 do not include establishments primarily engaged in the manufacture of fluid milk processed with ultra-high temperature. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

The data published with NAICS code 311520 include the following SIC industry:

2024 Ice cream and frozen desserts

3116 Meat Product Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 31161, Animal Slaughtering and Processing.

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 primary engaged in slaughtering animals (except poultry and small game). Establishments that slaughter and prepare meats are included in this industry.

The data published with NAICS code 311611 include the following SIC industries:

2011 Meat packing plants

2048 Prepared feeds, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311611 do not include establishments primarily engaged in custom slaughtering. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 311612 include the following SIC industries:

2013 Sausages and other prepared meats

5147 Meat and meat products (pt)

311613 Rendering and Meat Byproduct Processing

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

The data published with NAICS code 311613 include the following SIC industry:

2077 Animal and marine fats and oil (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311613 do not include establishments primarily engaged in manufacturing lard from purchased materials. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 311615 include the following SIC industry:

2015 Poultry and egg processing (pt)

3117 Seafood Product Preparation and Packaging

This NAICS industry group includes establishments classified in NAICS Industry 31171, Seafood Product Preparation and Packaging.

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 seafoods; (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 included in this industry.

311711 Seafood Canning

This U.S. industry comprises establishments primarily engaged in (1) canning seafood (including soup) and marine fats and oils and/or (2) smoking, salting, and drying seafoods. Establishments known as “floating factory ships” that are engaged in the gathering and processing of seafood into canned seafood products are included in this industry.

The data published with NAICS code 311711 include the following SIC industries:

2077 Animal and marine fats and oil (pt)

2091 Canned and cured seafood

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; (3) manufacturing frozen seafood; and (4) processing fresh and frozen marine fats and oils.

The data published with NAICS code 311712 include the following SIC industries:

2077 Animal and marine fats and oil (pt)

2092 Prepared fresh or frozen fish and seafood

3118 Bakeries and Tortilla Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 31181, Bread and Bakery Product Manufacturing; 31182, Cookie, Cracker, and Pasta Manufacturing; and 31183, 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.

The data published with NAICS code 311811 include the following SIC industry:

5461 Retail bakeries (pt)

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.

The data published with NAICS code 311812 include the following SIC industries:

2051 Bread, cake, and related products

2052 Cookies and crackers (pt)

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.

The data published with NAICS code 311813 include the following SIC industry:

2053 Frozen bakery products, except bread

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.

The data published with NAICS code 311821 include the following SIC industry:

2052 Cookies and crackers (pt)

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.

The data published with NAICS code 311822 include the following SIC industries:

2045 Blended and prepared flour

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.

The data published with NAICS code 311823 include the following SIC industry:

2098 Macaroni and spaghetti

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311823 do not include dry pasta plants primarily engaged in packaging dry pasta with other ingredients. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 311830 include the following SIC industry:

2099 Food preparations, n.e.c. (pt)

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.

The data published with NAICS code 311911 include the following SIC industries:

2068 Salted and roasted nuts and seeds

2099 Food preparations, n.e.c. (pt)

311919 Other Snack Food Manufacturing

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

The data published with NAICS code 311919 include the following SIC industries:

2052 Cookies and crackers (pt)

2096 Potato chips and similar snacks

31192 Coffee and Tea Manufacturing

This 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.

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.

The data published with NAICS code 311920 include the following SIC industries:

2043 Cereal breakfast foods (pt)

2095 Roasted coffee (pt)

2099 Food preparations, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311920 do not include establishments primarily engaged in the manufacture of coffee flavorings and syrups. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 311930 include the following SIC industry:

2087 Flavoring extracts and syrups, n.e.c. (pt)

31194 Seasoning and Dressing Manufacturing

This 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).

The data published with NAICS code 311941 include the following SIC industries:

2035 Pickles, sauces, and salad dressings (pt)

2099 Food preparations, n.e.c.(pt)

311942 Spice and Extract Manufacturing

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

The data published with NAICS code 311942 include the following SIC industries:

2087 Flavoring extracts and syrups, n.e.c. (pt)

2095 Roasted coffee (pt)

2099 Food preparations, n.e.c. (pt)

2899 Chemical preparations, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311942 include establishments primarily engaged in the manufacture of coffee extracts but do not include establishments primarily engaged in the manufacture of malt extract. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 311991 include the following SIC industry:

2099 Food preparations, n.e.c. (pt)

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; bakeries and tortillas; 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.

The data published with NAICS code 311999 include the following SIC industries:

2015 Poultry slaughtering and processing (pt)

2032 Canned specialties (pt)

2087 Flavoring extracts and syrups, n.e.c. (pt)

2099 Food preparations, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 311999 do not include establishments primarily engaged in the manufacture of soup mixes from purchased dehydrated ingredients. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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 NAICS industry group includes establishments classified in the following NAICS Industries: 31211, Soft Drink and Ice Manufacturing; 31212, Breweries; 31213, Wineries; and 31214, Distilleries.

31211 Soft Drink and Ice Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing soft drinks; (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.

The data published with NAICS code 312111 include the following SIC industry:

2086 Bottled and canned soft drinks (pt)

312112 Bottled Water Manufacturing

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

The data published with NAICS code 312112 include the following SIC industry:

2086 Bottled and canned soft drinks (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 312112 do not include establishments primarily engaged in the bottling of mineral or spring water. The NAICS definitions will be fully implemented with the 2002 Economic Census.

312113 Ice Manufacturing

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

The data published with NAICS code 312113 include the following SIC industry:

2097 Manufactured 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.

The data published with NAICS code 312120 include the following SIC industry:

2082 Malt beverages

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.

The data published with NAICS code 312130 include the following SIC industry:

2084 Wines, brandy, and brandy spirits

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 312130 do not include establishments primarily engaged in the manufacture of applejack. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 312140 include the following SIC industry:

2085 Distilled liquor, except brandy

3122 Tobacco Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 31221, Tobacco Stemming and Redrying; and 31222, Tobacco Product Manufacturing.

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.

The data published with NAICS code 312210 include the following SIC industry:

2141 Tobacco stemming and redrying (pt)

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.

The data published with NAICS code 312221 include the following SIC industries:

2111 Cigarettes

312229 Other Tobacco Product Manufacturing

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

The data published with NAICS code 312229 include the following SIC industries:

2121 Cigars

2131 Chewing and smoking tobacco

2141 Tobacco stemming and redrying (pt)

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 and 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 fibers.

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 includes 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; (2) manufacturing thread of any fiber; (3) texturizing, throwing, twisting, and winding purchased yarn or manmade fiber filaments; and (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.

The data published with NAICS code 313111 include the following SIC industries:

2281 Yarn spinning mills

2299 Textile goods, n.e.c. (pt)

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.

The data published with NAICS code 313112 include the following SIC industry:

2282 Yarn throwing and winding mills (pt)

3131121 Yarn Texturing, Throwing, and Twisting Mills – Manufacturer

Establishments primarily engaged in texturing, throwing, twisting, spooling, or winding purchased yarns or manmade filaments.

3131122 Yarn Texturing, Throwing, and Twisting Mills – Commission Finisher

Establishments primarily engaged in throwing, twisting, spooling, or winding yarns or manmade filaments on a commission basis.

313113 Thread Mills

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

The data published with NAICS code 313113 include the following SIC industries:

2284 Thread mills (pt)

2299 Textile goods, n.e.c. (pt)

3132 Fabric Mills

This NAICS industry group includes establishments classified in the following NAICS Industries: 31321, Broadwoven Fabric Mills; 31322, Narrow Fabric Mills and Schiffli Machine Embroidery; 31323, Nonwoven Fabric Mills; and 31324, 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.

The data published with NAICS code 313210 include the following SIC industries:

2211 Weaving mills, cotton

2221 Weaving mills, synthetics

2231 Weaving and finishing mills, wool (pt)

2299 Textile goods, n.e.c. (pt)

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; and (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

The data published with NAICS code 313221 include the following SIC industries:

2241 Narrow fabric mills

2299 Textile goods, n.e.c. (pt)

313222 Schiffli Machine Embroidery

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

The data published with NAICS code 313222 include the following SIC industry:

2397 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.

The data published with NAICS code 313230 include the following SIC industries:

2297 Nonwoven fabrics

2299 Textile goods, n.e.c. (pt)

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; or (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).

The data published with NAICS code 313241 include the following SIC industry:

2257 Circular knit fabric mills (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 313241 do not include establishments primarily engaged in the manufacture of articles of weft knit fabric. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3132411 Weft Knit Fabric Mills – Manufacturer

Establishments primarily engaged in knitting weft (i.e., circular) fabric; knitting and finishing weft fabric; or knitting, finishing, and further fabricating weft fabric products (except apparel).

3132412 Weft Knit Fabric Mills – Jobber

Establishments engaged as weft knit fabric jobbers, who perform entrepreneurial functions of a manufacturer, including buying raw materials, designing and preparing samples, arranging for fabric to be made from their materials, and marketing finished fabric or fabricated products (except apparel).

3132413 Weft Knit Fabric Mills – Contractor

Establishments primarily engaged in knitting or finishing weft knit fabric or further fabricating weft knit fabric into products (except apparel) on a commission basis.

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).

The data published with NAICS code 313249 include the following SIC industries:

2258 Lace and warp knit fabric mills (pt)

2259 Knitting mills, n.e.c. (pt)

3132491 Other Knit Fabric and Lace Mills – Manufacturer

Establishments primarily engaged in knitting warp (i.e., flat) fabric; knitting and finishing warp fabric; knitting, finishing, and further fabricating warp fabric products (except apparel); manufacturing lace; or manufacturing, dyeing, or finishing lace and lace goods.

3132492 Other Knit Fabric and Lace Mills – Jobber

Establishments engaged as other knit fabric and lace jobbers, who perform entrepreneurial functions of a manufacturer, including buying raw materials, designing and preparing samples, arranging for fabric to be made from their materials, and marketing finished fabric.

3132493 Other Knit Fabric and Lace Mills – Contractor

Establishments primarily engaged in knitting or finishing lace and other knit fabric or further fabricating lace and other knit fabric into products (except apparel) on a commission basis.

3133 Textile and Fabric Finishing and Fabric Coating Mills

This NAICS industry group includes establishments classified in the following NAICS Industries: 31331, Textile and Fabric Finishing Mills; and 31332, Fabric Coating Mills.

31331 Textile and Fabric Finishing Mills

This industry comprises (1) establishments primarily engaged in finishing of textiles, fabrics, and apparel, and (2) establishments of converters who buy fabric goods 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, calendaring, 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 and (2) establishments of converters who buy broadwoven fabrics in the grey, have them finished on contract, and sell at wholesale. Finishing operations include bleaching, dyeing, printing (e.g., roller, screen, flock, plisse), and other mechanical finishing, such as preshrinking, shrinking, sponging, calendaring, mercerizing and napping.

The data published with NAICS code 313311 include the following SIC industries:

- 2231 Weaving and finishing mills, wool (pt)
- 2261 Finishing plants, cotton
- 2262 Finishing plants, synthetics
- 5131 Piece goods, notions and other dry goods (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 313311 do not include establishments primarily engaged in the sponging of fabric for tailors and dressmakers. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3133111 Broadwoven Fabric Finishing Mills – Manufacturer

Establishments primarily engaged in dyeing, bleaching, printing, and other finishing of purchased broadwoven fabrics.

3133112 Broadwoven Fabric Finishing Mills – Converter

Establishments engaged as converters who buy broadwoven fabrics in the grey, have them finished on contract, and sell at wholesale.

3133113 Broadwoven Fabric Finishing Mills – Commission Finisher

Establishments primarily engaged in dyeing, bleaching, printing, and other finishing of broadwoven fabrics on a commission basis.

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) and (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.

The data published with NAICS code 313312 include the following SIC industries:

- 2231 Weaving and finishing mills, wool (pt)
- 2257 Circular knit fabric mills (pt)
- 2258 Lace and warp knit fabric mills (pt)

2269 Finishing plants, n.e.c.

2282 Yarn throwing and winding mills (pt)

2284 Thread mills (pt)

2299 Textile goods, n.e.c. (pt)

5131 Piece goods, notions and other dry goods (pt)

3133121 Textile and Fabric Finishing (Except Broadwoven Fabric) Mills – Manufacturer

Establishments primarily engaged in dyeing, bleaching, printing, and other finishing of purchased textiles, apparel, and fabrics (except broadwoven).

3133122 Textile and Fabric Finishing (Except Broadwoven Fabric) Mills – Converter

Establishments engaged as converters who buy fabrics (except broadwoven) in the grey, have them finished on contract, and sell at wholesale.

3133123 Textile and Fabric Finishing (Except Broadwoven Fabric) Mills – Commission Finisher

Establishments primarily engaged in dyeing, bleaching, printing, and other finishing of textiles, apparel, and fabrics (except broadwoven) on a commission basis.

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.

The data published with NAICS code 313320 include the following SIC industries:

- 2295 Coated fabrics, not rubberized
- 3069 Fabricated rubber products, n.e.c. (pt)

314 Textile Product Mills

Industries in the Textile Product Mills subsector group establishments that made 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 NAICS industry group includes establishments classified in the following NAICS Industries: 31411, Carpet and Rug Mills; and 31412, Curtain and Linen Mills.

31411 Carpet and Rug Mills

This 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.

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.

The data published with NAICS code 314110 include the following SIC industry:

2273 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.

The data published with NAICS code 314121 include the following SIC industries:

2391 Curtains and draperies

5714 Drapery and upholstery stores (pt)

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.

The data published with NAICS code 314129 include the following SIC industry:

2392 Housefurnishings, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 314129 do not include

establishments primarily engaged in the making of custom slip covers. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 314911 include the following SIC industries:

2392 Housefurnishings, n.e.c. (pt)

2393 Textile bags

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.

The data published with NAICS code 314912 include the following SIC industry:

2394 Canvas and related products

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.

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).

The data published with NAICS code 314991 include the following SIC industry:

2298 Cordage and twine

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.

The data published with NAICS code 314992 include the following SIC industry:

2296 Tire cord and fabric

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 cord and tire fabrics) from purchased materials.

The data published with NAICS code 314999 include the following SIC industries:

2299 Textile goods, n.e.c. (pt)

2395 Pleating and stitching (pt)

2396 Automotive and apparel trimmings (pt)

2399 Fabricated textile products, n.e.c. (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 314999 include establishments primarily engaged in the manufacture of other miscellaneous textile products from SIC 3999, but do not include establishments primarily engaged in the manufacture of dust rags or textile fire hoses, or engaged in the embroidery of advertising. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

The data published with NAICS code 315111 include the following SIC industries:

2251 Women's hosiery, except socks

2252 Hosiery, n.e.c. (pt)

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).

The data published with NAICS code 315119 include the following SIC industry:

2252 Hosiery, n.e.c. (pt)

31519 Other Apparel Knitting Mills

This industry comprises establishments primarily engaged in one of the following: (1) knitting underwear, outerwear, and/or nightwear; (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.

The data published with NAICS code 315191 include the following SIC industries:

2253 Knit outerwear mills

2259 Knitting mills, n.e.c. (pt)

3151911 Outerwear Knitting Mills – Manufacturer

Establishments primarily engaged in knitting outerwear clothing.

3151912 Outerwear Knitting Mills – Jobber

Establishments engaged as knit 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.

3151913 Outerwear Knitting Mills – Contractor

Establishments primarily engaged in manufacturing knit outerwear on materials owned by others (commission basis).

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.

The data published with NAICS code 315192 include the following SIC industries:

2254 Knit underwear mills

2259 Knitting mills, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 315192 do not include knitting mills primarily engaged in the manufacture of bath and lounge robes. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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 (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.

The data published with NAICS code 315211 include the following SIC industries:

2311 Men’s and boys’ suits and coats (pt)

2321 Shirts, men’s and boys’ (pt)

2322 Men’s and boys’ underwear and nightwear (pt)

2325 Men’s and boys’ trousers and slacks (pt)

2326 Men’s and boys’ work clothing (pt)

2329 Men’s and boys’ clothing, n.e.c. (pt)

2341 Women’s and children’s underwear (pt)

2384 Robes and dressing gowns (pt)

2385 Waterproof outer garments (pt)

2395 Pleating and stitching (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 315211 do not include establishments primarily engaged in cut and sew contract work for men’s and boy’s neckwear, hats, shirts, other outerwear, fur goods, dress and work gloves, leather gloves and mittens, leather and sheep-lined clothing, apparel belts, or apparel and accessories, nec. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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 (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.

The data published with NAICS code 315212 include the following SIC industries:

- 2331 Women's blouses and waists (pt)
- 2335 Women's dresses (pt)
- 2337 Women's suits and coats (pt)
- 2339 Women's outerwear, n.e.c. (pt)
- 2341 Women's and children's underwear (pt)
- 2342 Brassieres and allied garments (pt)
- 2361 Girls' and children's dresses and blouses (pt)
- 2369 Girls' and children's outerwear, n.e.c. (pt)
- 2384 Robes and dressing gowns (pt)
- 2385 Waterproof outer garments (pt)
- 2389 Apparel and accessories, n.e.c. (pt)
- 2395 Pleating and stitching (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 315212 do not include establishments primarily engaged in cut and sew contract work for women's, girls', and infants' hats; fur goods; dress and work gloves; leather gloves and mittens; leather and sheep-lined clothing; or apparel belts. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 315221 include the following SIC industries:

- 2322 Men's and boys' underwear and nightwear (pt)
- 2341 Women's and children's underwear (pt)
- 2369 Girls' and children's outerwear, n.e.c. (pt)
- 2384 Robes and dressing gowns (pt)

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.

The data published with NAICS code 315222 include the following SIC industries:

- 2311 Men's and boys' suits and coats (pt)
- 2369 Girls' and children's outerwear, n.e.c. (pt)
- 2385 Waterproof outer garments (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 315222 do not include establishments primarily engaged in custom tailoring.

3152221 Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing – Manufacturer

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.

3152222 - Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing - Jobber

Establishments engaged as 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.

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.

The data published with NAICS code 315223 include the following SIC industries:

2321 Shirts, men's and boys' (pt)

2361 Girls' and children's dresses and blouses (pt)

3152231 Men's and Boys' Cut and Sew Shirt (Except Work Shirt) Manufacturing – Manufacturer

Establishments primarily engaged in manufacturing men's and boys' outerwear shirts from purchased fabric.

3152232 Men's and Boys' Cut and Sew Shirt (Except Work Shirt) Manufacturing – Jobber

Establishments engaged as 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.

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.

The data published with NAICS code 315224 include the following SIC industries:

2325 Men's and boys' trousers and slacks (pt)

2369 Girls' and children's outerwear, n.e.c. (pt)

3152241 Men's and Boys' Cut and Sew Trouser, Slack, and Jean Manufacturing – Manufacturer

Establishments primarily engaged in manufacturing men's and boys' jeans, dungarees, and other separate trousers and slacks (except work pants) from purchased fabric.

3152242 Men's and Boys' Cut and Sew Trouser, Slack, and Jean Manufacturing – Jobbers

Establishments engaged as 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.

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.

The data published with NAICS code 315225 include the following SIC industry:

2326 Men's and boys' work clothing (pt)

3152251 Men's and Boys' Cut and Sew Work Clothing Manufacturing – Manufacturer

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.

3152252 Men's and Boys' Cut and Sew Work Clothing Manufacturing – Jobbers

Establishments engaged as 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.

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 sweat-pants 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.

The data published with NAICS code 315228 include the following SIC industries:

2329 Men's and boys' clothing, n.e.c. (pt)

2369 Girls' and children's outerwear, n.e.c. (pt)

2385 Waterproof outer garments (pt)

3152281 Men's and Boys' Cut and Sew Other Outerwear Manufacturing – Manufacturer

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 working clothing).

3152282 Men's and Boys' Cut and Sew Other Outerwear Manufacturing – Jobbers

Establishments engaged as 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.

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.

The data published with NAICS code 315231 include the following SIC industries:

2341 Women's and children's underwear (pt)

2342 Brassieres and allied garments (pt)

2369 Girls' and children's outerwear, n.e.c. (pt)

2384 Robes and dressing gowns (pt)

2389 Apparel and accessories, n.e.c. (pt)

3152311 Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing – Manufacturer

Establishments primarily engaged in manufacturing women's and girls' bras, girdles, and other underwear; lingerie; loungewear; and nightwear from purchased fabric.

3152312 Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing – Jobbers

Establishments engaged as 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.

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.

The data published with NAICS code 315232 include the following SIC industries:

2331 Women's blouses and waists (pt)

2361 Girls' and children's dresses and blouses (pt)

3152321 Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing – Manufacturer

Establishments primarily engaged in manufacturing women's and girls' blouses and shirts from purchased fabric.

3152322 Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing – Jobbers

Establishments engaged as 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.

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.

The data published with NAICS code 315233 include the following SIC industries:

2335 Women's dresses (pt)

2361 Girls' and children's dresses and blouses (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 315233 do not include establishments primarily engaged in custom tailoring.

3152331 Women's and Girls' Cut and Sew Dress Manufacturing – Manufacturer

Establishments primarily engaged in manufacturing women's and girls' dresses from purchased fabric.

3152332 Women's and Girls' Cut and Sew Dress Manufacturing – Jobbers

Establishments engaged as 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.

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.

The data published with NAICS code 315234 include the following SIC industries:

2337 Women's suits and coats (pt)

2369 Girls' and children's outerwear, n.e.c. (pt)

2385 Waterproof outer garments (pt)

3152341 Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing – Manufacturer

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.

3152342 Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing – Jobbers

Establishments engaged as 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.

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.

The data published with NAICS code 315239 include the following SIC industries:

2339 Women's outerwear, n.e.c. (pt)

2369 Girls' and children's outerwear, n.e.c. (pt)

2385 Waterproof outer garments (pt)

3152391 Women's and Girls' Cut and Sew Other Outerwear Manufacturing – Manufacturer

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).

3152392 Women's and Girls' Cut and Sew Other Outerwear Manufacturing – Jobbers

Establishments engaged as 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.

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.

The data published with NAICS code 315291 include the following SIC industries:

- 2341 Women's and children's underwear (pt)
- 2361 Girls' and children's dresses and blouses (pt)
- 2369 Girls' and children's outerwear, n.e.c. (pt)
- 2385 Waterproof outer garments (pt)

3152911 Infants' Cut and Sew Apparel Manufacturing – Manufacturer

Establishments primarily engaged in manufacturing infants' dresses, blouses, shirts, and all other infants' wear from purchased fabric. For the purposes of classification, the term "infants' apparel" includes apparel for young children of an age not exceeding 24 months.

3152912 Infants' Cut and Sew Apparel Manufacturing – Jobbers

Establishments engaged as 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. 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.

The data published with NAICS code 315292 include the following SIC industries:

- 2371 Fur goods
- 2386 Leather and sheep-lined clothing

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.

The data published with NAICS code 315299 include the following SIC industries:

- 2329 Men's and boys' clothing, n.e.c. (pt)
- 2339 Women's outerwear, n.e.c. (pt)
- 2389 Apparel and accessories, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 315299 do not include establishments primarily engaged in the manufacture of

waterproof rubber and plastic outerwear or rubber pants and raincoats. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3152991 All Other Cut and Sew Apparel Manufacturing – Manufacturer

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). Examples of products made by these establishments are team athletic uniforms, band uniforms, academic caps and gowns, clerical vestments, and costumes.

3152992 All Other Cut and Sew Apparel Manufacturing – Jobbers

Establishments engaged as clothing jobbers (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), 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. Examples of these products 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 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.

The data published with NAICS code 315991 include the following SIC industry:

2353 Hats, caps, and millinery

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.

The data published with NAICS code 315992 include the following SIC industries:

2381 Fabric gloves and mittens

3151 Leather gloves and mittens

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.

The data published with NAICS code 315993 include the following SIC industry:

2323 Men's and boys' neckwear

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, suspenders, and waterproof outerwear.

The data published with NAICS code 315999 include the following SIC industries:

2339 Women's outerwear, n.e.c. (pt)

2385 Waterproof outer garments (pt)

2387 Apparel belts

2389 Apparel and accessories, n.e.c. (pt)

2396 Automotive and apparel trimmings (pt)

2399 Fabricated textile products, n.e.c. (pt)

5699 Miscellaneous apparel and accessory stores (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 315999 include establishments primarily engaged in custom tailoring but do not include establishments primarily engaged in the manufacture of rubber bibs, aprons, and bathing caps.

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.

3161 Leather and Hide Tanning and Finishing

This NAICS industry group includes establishments classified in NAICS Industry 31611, Leather and Hide Tanning and Finishing.

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.

The data published with NAICS code 316110 include the following SIC industries:

3111 Leather tanning and finishing

3999 Manufacturing industries, n.e.c. (pt)

3162 Footwear Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 31621, Footwear Manufacturing.

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.

The data published with NAICS code 316211 include the following SIC industry:

Rubber and plastics footwear

316212 House Slipper Manufacturing

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

The data published with NAICS code 316212 include the following SIC industry:

3142 House slippers

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.

The data published with NAICS code 316213 include the following SIC industry:

3143 Men's footwear, except athletic

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.

The data published with NAICS code 316214 include the following SIC industry:

3144 Women's footwear, except athletic

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)).

The data published with NAICS code 316219 include the following SIC industry:

3149 Footwear, except rubber, n.e.c.

3169 Other Leather and Allied Product Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 31699, Other Leather and Allied Product Manufacturing.

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.

The data published with NAICS code 316991 include the following SIC industry:

3161 Luggage

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).

The data published with NAICS code 316992 include the following SIC industry:

3171 Women's handbags and purses

316993 Personal Leather Goods (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).

The data published with NAICS code 316993 include the following SIC industry:

3172 Personal leather goods, n.e.c.

316999 All Other Leather Goods Manufacturing

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

The data published with NAICS code 316999 include the following SIC industries:

3131 Footwear cut stock and findings (pt)

3199 Leather goods, n.e.c.

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.

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.

The data published with NAICS code 321113 include the following SIC industries:

2421 Sawmills and planing mills, general (pt)

2429 Special product sawmills, n.e.c. (pt)

2439 Structural wood members, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 321113 include establishments primarily engaged in the manufacture of lumber members made from logs and bolts, but do not include establishments primarily engaged in the manufacture of hardwood dimension made from logs and bolts. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 321114 include the following SIC industry:

2491 Wood preserving

3212 Veneer, Plywood, and Engineered Wood Product Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 32121, Veneer, Plywood, and Engineered Wood Product Manufacturing.

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.

The data published with NAICS code 321211 include the following SIC industry:

2435 Hardwood veneer and plywood

321212 Softwood Veneer and Plywood Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing softwood veneer and/or softwood plywood.

The data published with NAICS code 321212 include the following SIC industry:

2436 Softwood veneer and 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.

The data published with NAICS code 321213 include the following SIC industry:

2439 Structural wood members, n.e.c. (pt)

321214 Truss Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing laminated or fabricated wood roof and floor trusses.

The data published with NAICS code 321214 include the following SIC industry:

2439 Structural wood members, n.e.c. (pt)

321219 Reconstituted Wood Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing reconstituted wood sheets and boards.

The data published with NAICS code 321219 include the following SIC industry:

2493 Reconstituted wood products

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.

The data published with NAICS code 321911 include the following SIC industry:

2431 Millwork (pt)

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.

The data published with NAICS code 321912 include the following SIC industries:

2421 Sawmills and planing mills, general (pt)

2426 Hardwood dimension and flooring mills (pt)

2439 Structural wood members, n.e.c. (pt)

2499 Wood products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 321912 include establishments primarily engaged in the manufacture of hardwood dimension made from logs and bolts, lumber members made from purchased lumber, and semi-machined and fully-machined softwood dimension lumber, but do not include establishments primarily engaged in the manufacture of staves from purchased lumber. The NAICS definitions will be fully implemented with the 2002 Economic Census.

321918 Other Millwork (Including Flooring)

This U.S. industry comprises establishments primarily engaged in manufacturing millwork (except wood windows, wood doors, and cut stock).

The data published with NAICS code 321918 include the following SIC industries:

2421 Sawmills and planing mills, general (pt)

2426 Hardwood dimension and flooring mills (pt)

2431 Millwork (pt)

32192 Wood Container and Pallet Manufacturing

This industry comprises establishments primarily engaged in manufacturing wood pallets, wood box shoo, wood boxes, other wood containers, and wood parts for pallets and containers.

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.

The data published with NAICS code 321920 include the following SIC industries:

2429 Special product sawmills, n.e.c. (pt)

2441 Nailed wood boxes & shoo

2448 Wood pallets and skids

2449 Wood containers, n.e.c.

2499 Wood products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 321920 include establishments primarily engaged in the manufacture of cooperage headings and staves made of purchased lumber. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 321991 include the following SIC industry:

2451 Mobile homes

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.

The data published with NAICS code 321992 include the following SIC industry:

2452 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).

The data published with NAICS code 321999 include the following SIC industries:

2421 Sawmills and planing mills, general (pt)

2429 Special product sawmills, n.e.c. (pt)

2499 Wood products, n.e.c. (pt)

3131 Footwear cut stock and findings (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 321999 include establishments primarily engaged in the manufacture of wood cooling towers, but do not include establishments primarily engaged in the manufacture of finished metal moldings for mirrors and pictures, semi-machined and fully-machined softwood dimension, or cooperage headings. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

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.

The data published with NAICS code 322110 include the following SIC industry:

2611 Pulp mills

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.

The data published with NAICS code 322121 include the following SIC industries:

2621 Paper mills (pt)

2676 Sanitary paper products (pt)

3842 Surgical appliances and supplies (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 322121 include paper mills which convert sanitary paper stock into sanitary paper products, but do not include paper mills which are primarily engaged in the manufacture of other converted paper products. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3221211 Paper (Except Newsprint) Mills – Integrated Producer

Establishments primarily engaged in manufacturing paper (except newsprint and uncoated groundwood paper) from pulp in combination with pulp manufacture.

3221212 Paper (Except Newsprint) Mills – Nonintegrated Producer

Establishments primarily engaged in manufacturing paper (except newsprint and uncoated groundwood paper) from pulp not in combination with pulp manufacture.

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.

The data published with NAICS code 322122 include the following SIC industry:

2621 Paper mills (pt)

3221221 Newsprint Mills – Integrated Producer

Establishments primarily engaged in manufacturing newsprint and uncoated groundwood paper from pulp in combination with pulp manufacture.

3221222 Newsprint Mills – Nonintegrated Producer

Establishments primarily engaged in manufacturing newsprint and uncoated groundwood paper from pulp not in combination with pulp manufacture.

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.

The data published with NAICS code 322130 include the following SIC industry:

2631 Paperboard mills

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 322130 do not include paperboard mills primarily engaged in converting paperboard into paperboard products. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3221301 Paperboard Mills – Integrated Producer

Establishments primarily engaged in manufacturing paperboard from pulp in combination with pulp manufacture.

3221302 Paperboard Mills – Nonintegrated Producer

Establishments primarily engaged in manufacturing paperboard from pulp not in combination with pulp manufacture or paperboard converting.

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.

The data published with NAICS code 322211 include the following SIC industry:

2653 Corrugated and solid fiber boxes

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.

The data published with NAICS code 322212 include the following SIC industry:

2657 Folding paperboard boxes

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.

The data published with NAICS code 322213 include the following SIC industry:

2652 Setup paperboard boxes

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.

The data published with NAICS code 322214 include the following SIC industry:

2655 Fiber cans, drums, and similar products

322215 Nonfolding Sanitary Food Container Manufacturing

This U.S. industry comprises establishments primarily engaged in converting sanitary foodboard into food containers (except folding).

The data published with NAICS code 322215 include the following SIC industry:

2656 Sanitary food containers

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 performing one or more of the following activities associated with the manufacturing of packaging materials: (1) cutting and coating paper; and (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.

The data published with NAICS code 322221 include the following SIC industry:

2671 Paper - coated and laminated, packaging (pt)

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) manufacturing converted aluminum and other metal foils for non-packaging uses from purchased foils. The products made in this industry are made from purchased sheet materials and may be printed in the same establishment.

The data published with NAICS code 322222 include the following SIC industries:

2672 Paper - coated and laminated, n.e.c.

2679 Converted paper products, n.e.c. (pt)

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.

The data published with NAICS code 322223 include the following SIC industry:

2673 Bags - plastics, laminated, and coated (pt)

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.

The data published with NAICS code 322224 include the following SIC industry:

2674 Bags - uncoated paper and multiwall

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.

The data published with NAICS code 322225 include the following SIC industry:

3497 Metal foil and leaf (pt)

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.

The data published with NAICS code 322226 include the following SIC industry:

2675 Die-cut paper and board (pt)

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.

The data published with NAICS code 322231 include the following SIC industries:

2675 Die-cut paper and board (pt)

2679 Converted paper products, n.e.c. (pt)

322232 Envelope Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing envelopes for mailing or stationery of any material including combinations.

The data published with NAICS code 322232 include the following SIC industry:

2677 Envelopes

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., loose-leaf fillers, notebooks, pads, stationery, tablets).

The data published with NAICS code 322233 include the following SIC industry:

2678 Stationery products

32229 Other Converted Paper Product Manufacturing

This industry comprises establishments primarily engaged in (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.

The data published with NAICS code 322291 include the following SIC industries:

2676 Sanitary paper products (pt)

3842 Surgical appliances and supplies (pt)

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.

The data published with NAICS code 322299 include the following SIC industries:

2675 Die-cut paper and board (pt)

2679 Converted paper products, n.e.c. (pt)

3999 Manufacturing industries, n.e.c. (pt)

323 Printing and Related Support Activities

Industries in the Printing and Related Support Activities subsector print products, such as newspapers, books, periodicals, business forms, greeting cards, and other materials, and perform support activities, such as book-binding, platemaking services, and data imaging. 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, 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. 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.

3231 Printing and Related Support Activities

This NAICS industry group includes establishments classified in the following NAICS Industries: 32311, Printing; and 32312, Support Activities for Printing.

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 bending, 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.

The data published with NAICS code 323110 include the following SIC industries:

- 2752 Commercial printing, lithographic (pt)
- 2771 Greeting cards (pt)
- 3999 Manufacturing industries, n.e.c. (pt)

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.

The data published with NAICS code 323111 include the following SIC industries:

- 2754 Commercial printing, gravure
- 2771 Greeting cards (pt)
- 3999 Manufacturing industries, n.e.c. (pt)

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.

The data published with NAICS code 323112 include the following SIC industries:

- 2759 Commercial printing, n.e.c. (pt)
- 2771 Greeting cards (pt)
- 3999 Manufacturing industries, n.e.c. (pt)

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.

The data published with NAICS code 323113 include the following SIC industries:

- 2396 Automotive and apparel trimmings (pt)
- 2759 Commercial printing, n.e.c. (pt)
- 2771 Greeting cards (pt)
- 3999 Manufacturing industries, n.e.c. (pt)

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.

The data published with NAICS code 323114 include the following SIC industries:

- 2752 Commercial printing, lithographic (pt)
- 2759 Commercial printing, n.e.c. (pt)

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.

The data published with NAICS code 323115 include the following SIC industry:

- 2759 Commercial printing, n.e.c. (pt)

323116 Manifold Business Form 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.

The data published with NAICS code 323116 include the following SIC industries:

- 2761 Manifold business forms
- 2782 Blankbooks and looseleaf binders (pt)

323117 Book Printing

This U.S. industry comprises establishments primarily engaged in printing or printing and binding books and pamphlets without publishing.

The data published with NAICS code 323117 include the following SIC industry:

- 2732 Book printing

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.

The data published with NAICS code 323118 include the following SIC industry:

2782 Blankbooks and looseleaf binders (pt)

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.

The data published with NAICS code 323119 include the following SIC industries:

2759 Commercial printing, n.e.c. (pt)

2771 Greeting cards (pt)

3999 Manufacturing industries, n.e.c. (pt)

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).

The data published with NAICS code 323121 include the following SIC industry:

2789 Bookbinding and related work

323122 Prepress Services

This U.S. industry comprises (1) establishments primarily engaged in prepress services, such as imagesetting or typesetting, for printers and (2) establishments primarily engaged in preparing film or plates for printing purposes.

The data published with NAICS code 323122 include the following SIC industries:

2791 Typesetting

2796 Platemaking services

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.

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 NAICS industry group includes establishments classified in the following NAICS Industries: 32411, Petroleum Refineries; 32412, Asphalt Paving, Roofing, and Saturated Materials Manufacturing; and 32419, 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.

The data published with NAICS code 324110 include the following SIC industry:

2911 Petroleum refining

32412 Asphalt Paving, Roofing, and Saturated Materials Manufacturing

This industry comprises establishments primarily engaged in (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.

32412 Asphalt Paving, Roofing, and Saturated Materials Manufacturing

This industry comprises establishments primarily engaged in (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.

The data published with NAICS code 324121 include the following SIC industry:

2951 Asphalt paving mixtures and blocks

324122 Asphalt Shingle and Coating Materials Manufacturing

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

The data published with NAICS code 324122 include the following SIC industry:

2952 Asphalt felts and coatings

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.

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.

The data published with NAICS code 324191 include the following SIC industry:

2992 Lubricating oils and greases

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.

The data published with NAICS code 324199 include the following SIC industries:

2999 Petroleum and coal products, n.e.c.

3312 Blast furnaces and steel mills (pt)

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 (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 (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.

The data published with NAICS code 325110 include the following SIC industries:

2865 Cyclic crudes and intermediates (pt)

2869 Industrial organic chemicals, n.e.c. (pt)

32512 Industrial Gas Manufacturing

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

325120 Industrial Gas Manufacturing

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

The data published with NAICS code 325120 include the following SIC industries:

2813 Industrial gases

2869 Industrial organic chemicals, n.e.c. (pt)

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.

The data published with NAICS code 325131 include the following SIC industries:

2816 Inorganic pigments (pt)

2819 Industrial inorganic chemicals, n.e.c. (pt)

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).

The data published with NAICS code 325132 include the following SIC industry:

2865 Cyclic crudes and intermediates (pt)

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.

The data published with NAICS code 325181 include the following SIC industry:

2812 Alkalies and chlorine

325182 Carbon Black Manufacturing

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

The data published with NAICS code 325182 include the following SIC industries:

2816 Inorganic pigments (pt)

2895 Carbon 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).

The data published with NAICS code 325188 include the following SIC industries:

2819 Industrial inorganic chemicals, n.e.c. (pt)

2869 Industrial organic chemicals, n.e.c. (pt)

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).

The data published with NAICS code 325191 include the following SIC industry:

2861 Gum and wood chemicals

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.

The data published with NAICS code 325192 include the following SIC industry:

2865 Cyclic crudes and intermediates (pt)

325193 Ethyl Alcohol Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing nonpotable ethyl alcohol.

The data published with NAICS code 325193 include the following SIC industry:

2869 Industrial organic chemicals, n.e.c. (pt)

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).

The data published with NAICS code 325199 include the following SIC industries:

2869 Industrial organic chemicals, n.e.c. (pt)

2899 Chemical preparations, n.e.c. (pt)

3252 Resin, Synthetic Rubber, and 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.

The data published with NAICS code 325211 include the following SIC industry:

2821 Plastics materials and resins

325212 Synthetic Rubber Manufacturing

This U.S. industry consists of establishments primarily engaged in manufacturing synthetic rubber.

The data published with NAICS code 325212 include the following SIC industry:

2822 Synthetic rubber

32522 Artificial and Synthetic Fibers and Filaments Manufacturing

This industry comprises establishments primarily engaged in (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 (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 texturing cellulosic fibers and filaments.

The data published with NAICS code 325221 include the following SIC industry:

2823 Cellulosic manmade fibers

325222 Noncellulosic Organic Fiber Manufacturing

This U.S. industry consists of establishments primarily engaged in (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 texturing noncellulosic fibers and filaments.

The data published with NAICS code 325222 include the following SIC industry:

2824 Organic fibers, noncellulosic

3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 32531, Fertilizer Manufacturing; and 32532, 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.

The data published with NAICS code 325311 include the following SIC industry:

2873 Nitrogenous 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.

The data published with NAICS code 325312 include the following SIC industry:

2874 Phosphatic fertilizers

325314 Fertilizer (Mixing Only) Manufacturing

This U.S. industry comprises establishments primarily engaged in mixing ingredients made elsewhere into fertilizers.

The data published with NAICS code 325314 include the following SIC industry:

2875 Fertilizers, mixing only

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).

The data published with NAICS code 325320 include the following SIC industry:

2879 Agricultural chemicals, n.e.c.

3254 Pharmaceutical and Medicine Manufacturing

This NAICS industry group includes establishments classified in Industry 32541, Pharmaceutical and Medicine Manufacturing.

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 (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.

The data published with NAICS code 325411 include the following SIC industry:

2833 Medicinals and 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.

The data published with NAICS code 325412 include the following SIC industries:

2834 Pharmaceutical preparations

2835 Diagnostic substances (pt)

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.

The data published with NAICS code 325413 include the following SIC industry:

2835 Diagnostic substances (pt)

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).

The data published with NAICS code 325414 include the following SIC industry:

2836 Biological products, except diagnostic

3255 Paint, Coating, and Adhesive Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 32551, Paint and Coating Manufacturing; and 32552, Adhesive Manufacturing.

32551 Paint and Coating Manufacturing

This 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.

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.

The data published with NAICS code 325510 include the following SIC industries:

2851 Paints and allied products

2899 Chemical preparations, n.e.c. (pt)

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.

The data published with NAICS code 325520 include the following SIC industry:

2891 Adhesives and sealants

3256 Soap, Cleaning Compound, and Toilet Preparation Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 32561, Soap and Cleaning Compound Manufacturing; and 32562, 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.

The data published with NAICS code 325611 include the following SIC industries:

2841 Soap and other detergents

2844 Toilet preparations (pt)

325612 Polish and Other Sanitation Good Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing and packaging polishes and specialty cleaning preparations.

The data published with NAICS code 325612 include the following SIC industry:

2842 Polishes and sanitation goods

325613 Surface Active Agent Manufacturing

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

The data published with NAICS code 325613 include the following SIC industry:

2843 Surface active agents

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.

The data published with NAICS code 325620 include the following SIC industry:

2844 Toilet preparations (pt)

3259 Other Chemical Product 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 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.

The data published with NAICS code 325910 include the following SIC industry:

2893 Printing ink

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.

The data published with NAICS code 325920 include the following SIC industry:

2892 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 comprises establishments primarily engaged in (1) custom mixing and blending plastics resins made elsewhere or (2) reformulating plastics resins from recycled plastics products.

The data published with NAICS code 325991 include the following SIC industries:

3087 Custom compound purchased resins

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.

The data published with NAICS code 325992 include the following SIC industry:

3861 Photographic equipment and supplies (pt)

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).

The data published with NAICS code 325998 include the following SIC industries:

2819 Industrial inorganic chemicals, n.e.c. (pt)

2899 Chemical preparations, n.e.c. (pt)

3952 Lead pencils and art goods (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 325998 do not include establishments primarily engaged in aerosol packaging. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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 Hose 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 Unsupported Plastics Film, Sheet, and Bag Manufacturing

This industry comprises establishments primarily engaged in (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 Unsupported Plastics Bag Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) converting plastics resins into plastics bags or (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.

The data published with NAICS code 326111 include the following SIC industry:

2673 Bags - plastics, laminated, and coated (pt)

326112 Unsupported Plastics Packaging Film and Sheet Manufacturing

This U.S. industry comprises establishments primarily engaged in converting plastics resins into plastics packaging (flexible) film and packaging sheet.

The data published with NAICS code 326112 include the following SIC industry:

2671 Paper - coated and laminated, packaging (pt)

326113 Unsupported Plastics Film and Sheet (Except Packaging) Manufacturing

This U.S. industry comprises establishments primarily engaged in converting plastics resins into plastics film and unlaminated sheet (except packaging).

The data published with NAICS code 326113 include the following SIC industry:

3081 Unsupported plastics film and sheet

32612 Plastics Pipe, Pipe Fitting, and Unsupported 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 Unsupported Plastics Profile Shapes 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.

The data published with NAICS code 326121 include the following SIC industry:

3082 Unsupported plastics profile shapes

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.

The data published with NAICS code 326122 include the following SIC industries:

3084 Plastics pipe

3089 Plastics products, n.e.c. (pt)

32613 Laminated Plastics Plate, Sheet, 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, 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.

The data published with NAICS code 326130 include the following SIC industry:

3083 Laminated plastics plate and sheet

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.

The data published with NAICS code 326140 include the following SIC industry:

3086 Plastics foam products (pt)

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).

The data published with NAICS code 326150 include the following SIC industry:

3086 Plastics foam products (pt)

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.

The data published with NAICS code 326160 include the following SIC industry:

3085 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.

The data published with NAICS code 326191 include the following SIC industry:

3088 Plastics plumbing fixtures

326192 Resilient Floor Covering Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing resilient floor coverings for permanent installation.

The data published with NAICS code 326192 include the following SIC industries:

3069 Fabricated rubber products, n.e.c. (pt)

3996 Hard surface floor coverings

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).

The data published with NAICS code 326199 include the following SIC industries:

3089 Plastics products, n.e.c. (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 326199 include establishments primarily engaged in the manufacture of plastic furniture parts. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 326211 include the following SIC industry:

3011 Tires and inner tubes

326212 Tire Retreading

This U.S. industry comprises establishments primarily engaged in retreading, or rebuilding tires.

The data published with NAICS code 326212 include the following SIC industry:

7534 Tire retreading and repair shops (pt)

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.

The data published with NAICS code 326220 include the following SIC industry:

3052 Rubber and plastics hose and belting

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.

The data published with NAICS code 326291 include the following SIC industry:

3061 Mechanical rubber goods

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.

The data published with NAICS code 326299 include the following SIC industry:

3069 Fabricated rubber products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 326299 include establishments primarily engaged in the manufacture of rubber products including gloves, toys, pants, raincoats, bibs, aprons, bathing caps, life jackets, and wet suits. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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 benefit 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.

3271 Clay Product and Refractory Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 32711, Pottery, Ceramics, and Plumbing Fixture Manufacturing; and 32712, Clay Building Material and Refractories Manufacturing.

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.

The data published with NAICS code 327111 include the following SIC industry:

3261 Vitreous plumbing fixtures

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.

The data published with NAICS code 327112 include the following SIC industries:

3262 Vitreous china table and kitchen articles

3263 Fine earthenware table and kitchen articles

3269 Pottery products, n.e.c.

3299 Nonmetallic mineral products, n.e.c. (pt)

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.

The data published with NAICS code 327113 include the following SIC industry:

3264 Porcelain electrical supplies

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.

The data published with NAICS code 327121 include the following SIC industry:

3251 Brick and structural clay tile

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 327121 include establishments primarily engaged in the manufacture of slumped brick. The NAICS definitions will be fully implemented with the 2002 Economic Census.

327122 Ceramic Wall and Floor Tile Manufacturing

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

The data published with NAICS code 327122 include the following SIC industry:

3253 Ceramic wall and floor tile

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.

The data published with NAICS code 327123 include the following SIC industry:

3259 Structural clay products, n.e.c.

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.

The data published with NAICS code 327124 include the following SIC industry:

3255 Clay refractories

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.

The data published with NAICS code 327125 include the following SIC industry:

3297 Nonclay refractories

3272 Glass and Glass Product Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 32721, Glass and Glass Product Manufacturing.

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.

The data published with NAICS code 327211 include the following SIC industry:

3211 Flat glass

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).

The data published with NAICS code 327212 include the following SIC industry:

3229 Pressed and blown glass, n.e.c.

327213 Glass Container Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing glass packaging containers.

The data published with NAICS code 327213 include the following SIC industry:

3221 Glass containers

327215 Glass Product Manufacturing Made of Purchased Glass

This U.S. industry comprises establishments primarily engaged in remelting, pressing, blowing, or shaping purchased glass.

The data published with NAICS code 327215 include the following SIC industry:

3231 Products of purchased glass

3273 Cement and Concrete Product Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 32731, Cement Manufacturing; 32732, Ready-Mix Concrete Manufacturing; 32733, Concrete Pipe, Brick, and Block Manufacturing; and 32739, 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.

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.

The data published with NAICS code 327310 include the following SIC industry:

3241 Cement, hydraulic

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, 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.

The data published with NAICS code 327320 include the following SIC industry:

3273 Ready-mixed concrete

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.

The data published with NAICS code 327331 include the following SIC industry:

3271 Concrete brick and block

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 327331 do not include establishments primarily engaged in the manufacture of slumped brick. The NAICS definitions will be fully implemented with the 2002 Economic Census.

327332 Concrete Pipe Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing concrete pipe.

The data published with NAICS code 327332 include the following SIC industry:

3272 Concrete products, n.e.c. (pt)

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).

The data published with NAICS code 327390 include the following SIC industry:

3272 Concrete products, n.e.c. (pt)

3274 Lime and Gypsum Product Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 32741, Lime Manufacturing; and 32742, Gypsum Product Manufacturing.

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.

The data published with NAICS code 327410 include the following SIC industry:

3274 Lime

32742 Gypsum Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing gypsum products such as wall-board, 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 wall-board, plaster, plasterboard, molding, ornamental moldings, statuary, and architectural plaster work. Gypsum product manufacturing establishments may mine, quarry, or purchase gypsum.

The data published with NAICS code 327420 include the following SIC industries:

3275 Gypsum products

3299 Nonmetallic mineral products, n.e.c. (pt)

3279 Other Nonmetallic Mineral Product Manufacturing

The Other Nonmetallic Mineral Product Manufacturing industry group comprises establishments 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.

The data published with NAICS code 327910 include the following SIC industry:

3291 Abrasive products (pt)

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.

The data published with NAICS code 327991 include the following SIC industry:

3281 Cut stone and stone products

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.

The data published with NAICS code 327992 include the following SIC industry:

3295 Minerals, ground or treated

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.

The data published with NAICS code 327993 include the following SIC industry:

3296 Mineral wool

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).

The data published with NAICS code 327999 include the following SIC industries:

3272 Concrete products, n.e.c. (pt)

3292 Asbestos products (pt)

3299 Nonmetallic mineral products, n.e.c. (pt)

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 NAICS industry group includes establishments classified in NAICS Industry 33111, Iron and Steel Mills and Ferroalloy Manufacturing.

33111 Iron and Steel Mills and Ferroalloy Manufacturing

This industry 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, 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; (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.

The data published with NAICS code 331111 include the following SIC industries:

3312 Blast furnaces and steel mills (pt)

3399 Primary metal products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 331111 include establishments primarily engaged in the manufacture of ferrous metal powder, paste, and flake. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3311111 Iron and Steel Mills – Fully Integrated

Establishments primarily engaged in smelting iron ore in a blast furnace to produce pig iron in molten or solid form; then converting pig iron into steel by removal of the carbon in the iron through combustion in a basic oxygen or electric furnace; then producing iron and steel basic shapes, such as plates, sheets, strips, and bars, and other related products, such as pipes, tubes, and wire.

3311112 Iron and Steel Mills – Partially Integrated With a Blast Furnace

Establishments primarily engaged in smelting iron ore in a blast furnace to produce pig iron in molten or solid form; then converting pig iron into steel by removal of the carbon in the iron through combustion in a basic oxygen or electric furnace; then producing ingots and/or semfinished shapes, such as blooms, billets, and rods.

3311113 Iron and Steel Mills – Partially Integrated Without a Blast Furnace

Establishments primarily engaged in converting pig iron, direct reduced iron, and/or scrap into steel by removal of the carbon in the iron through combustion in a basic oxygen or electric furnace; then producing iron and steel basic shapes, such as plates, sheets, strips, and bars, and other related products, such as pipes, tubes, and wire.

3311114 Iron and Steel Mills – Nonintegrated

Establishments primarily engaged in producing iron and steel basic shapes, such as plates, sheets, strips, and bars, and other related products, such as pipes, tubes, and wire from purchased ingots and/or semfinished shapes, such as blooms, billets, and rods.

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.

The data published with NAICS code 331112 include the following SIC industry:

3313 Electrometallurgical products (pt)

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 Pipes and Tubes 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 Pipes and Tubes 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.

The data published with NAICS code 331210 include the following SIC industry:

3317 Steel pipe and tubes

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.

The data published with NAICS code 331221 include the following SIC industry:

3316 Cold finishing of steel shapes

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 331221 do not include establishments primarily engaged in making coke oven and blast furnace products; in making steel and rolling or drawing steel shapes; or in the making of ferrous metal powder, paste, and flake. The NAICS definitions will be fully implemented with the 2002 Economic Census.

331222 Steel Wire Drawing

This U.S. industry comprises establishments primarily engaged in drawing wire from purchased steel.

The data published with NAICS code 331222 include the following SIC industry:

3315 Steel wire and related products (pt)

3313 Alumina and Aluminum Production and Processing

This NAICS industry group includes establishments classified in NAICS Industry 33131, Alumina and Aluminum Production and Processing.

33131 Alumina and Aluminum Production and Processing

This industry 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, wire).

331311 Alumina Refining

This U.S. industry comprises establishments primarily engaged in refining alumina (i.e., aluminum oxide) generally from bauxite.

The data published with NAICS code 331311 include the following SIC industry:

2819 Industrial inorganic chemicals, n.e.c. (pt)

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, strip). Establishments in this industry may make primary aluminum or aluminum-based alloys from alumina.

The data published with NAICS code 331312 include the following SIC industry:

3334 Primary aluminum

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.

The data published with NAICS code 331314 include the following SIC industries:

3341 Secondary nonferrous metals (pt)

3399 Primary metal products, n.e.c. (pt)

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.

The data published with NAICS code 331315 include the following SIC industry:

3353 Aluminum sheet, plate, and foil (pt)

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.

The data published with NAICS code 331316 include the following SIC industry:

3354 Aluminum extruded products

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.

The data published with NAICS code 331319 include the following SIC industries:

3355 Aluminum rolling and drawing, n.e.c.

3357 Nonferrous wire drawing and insulating (pt)

3314 Nonferrous Metal (Except Aluminum) Production and Processing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33141, Nonferrous Metal (Except Aluminum) Smelting and Refining; 33142, Copper Rolling, Drawing, Extruding, and Alloying; and 33149, 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 (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.

The data published with NAICS code 331411 include the following SIC industry:

3331 Primary copper

331419 Primary Smelting and Refining of Nonferrous Metal (Except Copper and Aluminum)

This U.S. industry comprises establishments primarily engaged in (1) making (i.e., the primary production) nonferrous metals by smelting ore and/or (2) the primary refining of nonferrous metals by electrolytic methods or other processes.

The data published with NAICS code 331419 include the following SIC industry:

3339 Primary nonferrous metals, n.e.c.

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, and 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, and 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, 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, tube (except bare or insulated copper communication or energy wire in integrated mills)).

The data published with NAICS code 331421 include the following SIC industry:

3351 Copper rolling and drawing

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.

The data published with NAICS code 331422 include the following SIC industry:

3357 Nonferrous wire drawing and insulating (pt)

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.

The data published with NAICS code 331423 include the following SIC industries:

3341 Secondary nonferrous metals (pt)

3399 Primary metal products, n.e.c. (pt)

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, or extruding shapes (e.g., bar, plate, sheet, strip, 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, tube) in integrated mills.

The data published with NAICS code 331491 include the following SIC industries:

3356 Nonferrous rolling and drawing, n.e.c.

3357 Nonferrous wire drawing and insulating (pt)

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, wire) using smelting or refining processes.

The data published with NAICS code 331492 include the following SIC industries:

3313 Electrometallurgical products (pt)

3341 Secondary nonferrous metals (pt)

3399 Primary metal products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 331492 include establishments primarily engaged in the manufacture of other nonferrous additive alloys. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

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 man-hole covers, cast iron pipe, cast iron skillets). Establishments in this industry purchase iron made in other establishments.

The data published with NAICS code 331511 include the following SIC industries:

3321 Gray iron foundries

3322 Malleable iron foundries

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.

The data published with NAICS code 331512 include the following SIC industry:

3324 Steel investment foundries

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.

The data published with NAICS code 331513 include the following SIC industry:

3325 Steel foundries, n.e.c.

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.

The data published with NAICS code 331521 include the following SIC industry:

3363 Aluminum die-castings

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.

The data published with NAICS code 331522 include the following SIC industry:

3364 Nonferrous die-casting, except aluminum

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.

The data published with NAICS code 331524 include the following SIC industry:

3365 Aluminum foundries

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.

The data published with NAICS code 331525 include the following SIC industry:

3366 Copper foundries

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.

The data published with NAICS code 331528 include the following SIC industry:

3369 Nonferrous foundries, n.e.c.

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 NAICS industry group includes establishments classified in NAICS Industry 33211, Forging and Stamping.

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, coins); and (4) manufacturing powder metallurgy products. Establishments making metal forgings, metal stampings, and metal spun products and further manufacturing (e.g., machining, 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.

The data published with NAICS code 332111 include the following SIC industry:

3462 Iron and steel forgings

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.

The data published with NAICS code 332112 include the following SIC industry:

3463 Nonferrous forgings

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.

The data published with NAICS code 332114 include the following SIC industry:

3449 Miscellaneous metal work (pt)

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.

The data published with NAICS code 332115 include the following SIC industry:

3466 Crowns and closures

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.

The data published with NAICS code 332116 include the following SIC industry:

3469 Metal stampings, n.e.c. (pt)

332117 Powder Metallurgy Parts 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.

The data published with NAICS code 332117 include the following SIC industry:

3499 Fabricated metal products, n.e.c. (pt)

3322 Cutlery and Handtool Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33221, Cutlery and Handtool Manufacturing.

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 skillet) 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.

The data published with NAICS code 332211 include the following SIC industries:

3421 Cutlery

3914 Silverware and plated ware (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census—Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332211 do not include establishments primarily engaged in the manufacture of hand-operated clippers for human hair. The NAICS definitions will be fully implemented with the 2002 Economic Census.

332212 Hand and Edge Tool Manufacturing

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

The data published with NAICS code 332212 include the following SIC industries:

- 3423 Hand and edge tools, n.e.c.
- 3523 Farm machinery and equipment (pt)
- 3524 Lawn and garden equipment (pt)
- 3545 Machine tool accessories (pt)
- 3699 Electrical equipment and supplies, n.e.c. (pt)
- 3799 Transportation equipment, n.e.c. (pt)
- 3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census—Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332212 include establishments primarily engaged in the manufacture of wheelbarrows or quality control laser equipment but do not include establishments primarily engaged in the manufacture of tool-type shears or fish wire, an electrical wiring tool. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

The data published with NAICS code 332213 include the following SIC industry:

- 3425 Saw blades and handsaws

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).

The data published with NAICS code 332214 include the following SIC industry:

- 3469 Metal stampings, n.e.c. (pt)

3323 Architectural and Structural Metals Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33231, Plate Work and Fabricated Structural Product Manufacturing; and 33232, 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.

The data published with NAICS code 332311 include the following SIC industry:

- 3448 Prefabricated metal buildings

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.

The data published with NAICS code 332312 include the following SIC industries:

- 3441 Fabricated structural metal
- 3449 Miscellaneous metal work (pt)

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.

The data published with NAICS code 332313 include the following SIC industry:

- 3443 Fabricated plate work, boiler shops (pt)

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 (i.e., typically using purchased glass) and metal doors. Examples of products made by these establishments are metal door frames; metal framed window and door screens; metal molding and trim (except automotive); and metal curtain walls.

The data published with NAICS code 332321 include the following SIC industries:

- 2499 Wood products, n.e.c. (pt)
- 3442 Metal doors, sash, and trim
- 3449 Miscellaneous metal work (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332321 include establishments primarily engaged in the manufacture of metal finished moldings for mirrors and pictures. The NAICS definitions will be fully implemented with the 2002 Economic Census.

332322 Sheet Metal Work Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing sheet metal work (except stampings).

The data published with NAICS code 332322 include the following SIC industry:

- 3444 Sheet metal work (pt)

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.

The data published with NAICS code 332323 include the following SIC industries:

- 3446 Architectural metal work
- 3449 Miscellaneous metal work (pt)
- 3523 Farm machinery and equipment (pt)

3324 Boiler, Tank, and Shipping Container Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33241, Power Boiler and Heat Exchanger Manufacturing; 33242, Metal Tank (Heavy Gauge) Manufacturing; and 33243, 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.

The data published with NAICS code 332410 include the following SIC industry:

- 3443 Fabricated plate work, boiler shops (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332410 do not include establishments primarily engaged in the manufacture of nuclear control drive mechanisms. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 332420 include the following SIC industry:

- 3443 Fabricated plate work, boiler shops (pt)

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.

The data published with NAICS code 332431 include the following SIC industry:

- 3411 Metal cans

332439 Other Metal Container Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal (light gauge) containers (except cans).

The data published with NAICS code 332439 include the following SIC industries:

- 3412 Metal barrels, drums, and pails
- 3429 Hardware, n.e.c. (pt)
- 3444 Sheet metal work (pt)
- 3499 Fabricated metal products, n.e.c. (pt)
- 3537 Industrial trucks and tractors (pt)

3325 Hardware Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33251, Hardware Manufacturing.

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, 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, time locks).

The data published with NAICS code 332510 include the following SIC industries:

- 3429 Hardware, n.e.c. (pt)
- 3499 Fabricated metal products, n.e.c. (pt)

3326 Spring and Wire Product Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33261, Spring and Wire Product Manufacturing.

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).

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.

The data published with NAICS code 332611 include the following SIC industry:

- 3493 Steel springs, except wire

332612 Spring (Light Gauge) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing light gauge springs from purchased wire or strip.

The data published with NAICS code 332612 include the following SIC industry:

- 3495 Wire springs (pt)

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.

The data published with NAICS code 332618 include the following SIC industries:

- 3315 Steel wire and related products (pt)
- 3399 Primary metal products, n.e.c. (pt)
- 3496 Miscellaneous fabricated wire products

3327 Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33271, Machine Shops; and 33272, Turned Product and Screw, Nut, and Bolt Manufacturing.

33271 Machine Shops

This industry comprises establishments known as machine shops primarily engaged in machining metal parts on a job or order basis. 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 known as machine shops primarily engaged in machining metal parts on a job or order basis. 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.

The data published with NAICS code 332710 include the following SIC industry:

- 3599 Industrial machinery, n.e.c. (pt)

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 manufacturing parts for machinery and equipment on a customized basis.

332721 Precision Turned Product Manufacturing

This U.S. industry comprises establishments known as precision turned manufacturers primarily engaged in machining precision products of all materials on a job or order basis. 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.

The data published with NAICS code 332721 include the following SIC industry:

3451 Screw machine products

332722 Bolt, Nut, Screw, Rivet, and Washer Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal bolts, nuts, screws, rivets, and washers, and other industrial fasteners using machines, such as headers, threaders, and nut forming machines.

The data published with NAICS code 332722 include the following SIC industry:

3452 Bolts, nuts, rivets, and washers

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332722 do not include establishments primarily engaged in the manufacture of turnbuckles and hose clamps. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3328 Coating, Engraving, Heat Treating, and Allied Activities

This NAICS industry group includes establishments classified in NAICS Industry 33281, Coating, Engraving, Heat Treating, and Allied Activities.

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, 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. Establishments in this industry 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.

The data published with NAICS code 332811 include the following SIC industry:

3398 Metal heat treating

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.

The data published with NAICS code 332812 include the following SIC industry:

3479 Metal coating and allied services (pt)

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.

The data published with NAICS code 332813 include the following SIC industry:

3471 Plating and polishing

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332813 do not include establishments primarily engaged in laminating steel. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 332911 include the following SIC industries:

3491 Industrial valves

332912 Fluid Power Valve and Hose Fitting Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power valves and hose fittings.

The data published with NAICS code 332912 include the following SIC industries:

3492 Fluid power valves and hose fittings

3728 Aircraft parts and equipment, n.e.c. (pt)

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.

The data published with NAICS code 332913 include the following SIC industry:

3432 Plumbing fittings and brass goods (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332913 include establishments primarily engaged in the manufacture of lawn hose nozzels. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

The data published with NAICS code 332919 include the following SIC industries:

3429 Hardware, n.e.c. (pt)

3494 Valves and pipe fittings, n.e.c. (pt)

3499 Fabricated metal products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332919 do not include establishments primarily engaged in manufacturing lawn hose nozzels. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 332991 include the following SIC industry:

3562 Ball and roller bearings

332992 Small Arms Ammunition Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing small arms ammunition.

The data published with NAICS code 332992 include the following SIC industry:

3482 Small arms ammunition

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.

The data published with NAICS code 332993 include the following SIC industry:

3483 Ammunition, except small arms, n.e.c.

332994 Small Arms Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing small firearms that are carried and fired by the individual.

The data published with NAICS code 332994 include the following SIC industry:

3484 Small arms

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332994 do not include establishments primarily engaged in the manufacture of tranquilizer guns. The NAICS definitions will be fully implemented with the 2002 Economic Census.

332995 Other Ordnance and Accessories Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing ordnance (except small arms) and accessories.

The data published with NAICS code 332995 include the following SIC industry:

3489 Ordnance and accessories, n.e.c.

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.

The data published with NAICS code 332996 include the following SIC industries:

3353 Aluminum sheet, plate, and foil (pt)

3498 Fabricated pipe and fittings

332997 Industrial Pattern Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing industrial patterns.

The data published with NAICS code 332997 include the following SIC industry:

3543 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.

The data published with NAICS code 332998 include the following SIC industry:

3431 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).

The data published with NAICS code 332999 include the following SIC industries:

3291 Abrasive products (pt)

3432 Plumbing fixture fittings and trim

3494 Valves and pipe fittings, n.e.c. (pt)

3497 Metal foil and leaf (pt)

3499 Fabricated metal products, n.e.c. (pt)

3537 Industrial trucks and tractors (pt)

3599 Industrial machinery, n.e.c. (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332999 do not include establishments primarily engaged in manufacturing fire-place fixtures, traps, handcuffs and leg irons, ladder jacks, or other like metal products, or primarily engaged in manufacturing precious metal hollowware. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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 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 NAICS industry group includes establishments classified in the following NAICS Industries: 33311, Agricultural Implement Manufacturing; 33312, Construction Machinery Manufacturing; and 33313, 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).

The data published with NAICS code 333111 include the following SIC industry:

3523 Farm machinery and equipment (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to

NAICS. Data for NAICS industry 333111 do not include establishments primarily engaged in manufacturing cotton ginning machinery. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 333112 include the following SIC industry:

3524 Lawn and garden equipment (pt)

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.

The data published with NAICS code 333120 include the following SIC industry:

3531 Construction machinery (pt)

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, rock drills and (2) manufacturing mineral beneficiating machinery and equipment used in surface or underground mines.

The data published with NAICS code 333131 include the following SIC industry:

3532 Mining machinery

333132 Oil and Gas Field Machinery and Equipment Manufacturing

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

The data published with NAICS code 333132 include the following SIC industry:

3533 Oil field machinery

3332 Industrial Machinery Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33321, Sawmill and Woodworking Machinery Manufacturing; 33322, Plastics and Rubber Industry Machinery Manufacturing; and 33329, Other Industrial Machinery Manufacturing.

33321 Sawmill and Woodworking Machinery Manufacturing

This 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.

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.

The data published with NAICS code 333210 include the following SIC industry:

3553 Woodworking 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.

The data published with NAICS code 333220 include the following SIC industry:

3559 Special industry machinery, n.e.c. (pt)

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.

The data published with NAICS code 333291 include the following SIC industry:

3554 Paper industries machinery

333292 Textile Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing textile machinery for making thread, yarn, and fiber.

The data published with NAICS code 333292 include the following SIC industries:

3552 Textile machinery

3699 Electrical equipment and supplies, n.e.c. (pt)

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, type-setting machinery, and bindery machinery.

The data published with NAICS code 333293 include the following SIC industries:

3555 Printing trades machinery

3699 Electrical equipment and supplies, n.e.c. (pt)

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, ice cream freezers), bakery machinery and equipment (e.g., dough mixers, bake ovens, pastry rolling machines), meat and poultry processing and preparation machinery, and other commercial food products machinery (e.g., slicers, choppers, and mixers).

The data published with NAICS code 333294 include the following SIC industry:

3556 Food products machinery

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.

The data published with NAICS code 333295 include the following SIC industry:

3559 Special industry machinery, n.e.c. (pt)

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).

The data published with NAICS code 333298 include the following SIC industries:

3559 Special industry machinery, n.e.c. (pt)

3639 Household appliances, n.e.c. (pt)

3333 Commercial and Service Industry Machinery Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33331, Commercial and Service Industry Machinery Manufacturing.

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 drycleaning 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.

The data published with NAICS code 333311 include the following SIC industry:

3581 Automatic merchandising machines

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 333311 do not include establishments primarily engaged in the manufacture of change making machines. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 333312 include the following SIC industry:

3582 Commercial laundry equipment

333313 Office Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing office machinery (except computers and photocopying equipment), such as mail-handling machinery and equipment, calculators, typewriters, and dedicated word processing equipment.

The data published with NAICS code 333313 include the following SIC industries:

3578 Calculating and accounting equipment (pt)

3579 Office machines, n.e.c. (pt)

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, proton), telescopes, prisms, and lenses (except ophthalmic); (2) coating or polishing lenses (except ophthalmic); and (3) mounting lenses (except ophthalmic).

The data published with NAICS code 333314 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3827 Optical instruments and lenses

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 333314 include establishments primarily engaged in the manufacture of sighting and tracking laser products.

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, digital projectors, film developing equipment, photocopying equipment, and microfilm equipment).

The data published with NAICS code 333315 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3861 Photographic equipment and supplies (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 333315 include establishments primarily engaged in the manufacture of photographic laser products.

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).

The data published with NAICS code 333319 include the following SIC industries:

3559 Special industry machinery, n.e.c. (pt)

3589 Service industry machinery, n.e.c.

3599 Industrial machinery, n.e.c. (pt)

3699 Electrical equipment and supplies, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 333319 do not include establishments primarily engaged in the manufacture of beauty and barbershop equipment, except chairs. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3334 Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33341, Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing.

33341 Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing

This industry comprises establishments primarily engaged in manufacturing ventilating, 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.

The data published with NAICS code 333411 include the following SIC industry:

3564 Blowers and fans (pt)

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.

The data published with NAICS code 333412 include the following SIC industry:

3564 Blowers and fans (pt)

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.

The data published with NAICS code 333414 include the following SIC industries:

3433 Heating equipment, except electric

3634 Electric housewares and fans (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 333414 do not include establishments primarily engaged in the manufacture of cooling towers of wood, metal, or sheet metal, or the manufacture of electric swimming pool heaters. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 333415 include the following SIC industries:

3443 Fabricated plate work, boiler shops (pt)

3585 Refrigeration and heating equipment (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to

NAICS. Data for NAICS industry 333415 include establishments primarily engaged in the manufacture of metal cooling towers. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3335 Metalworking Machinery Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33351, Metalworking Machinery Manufacturing.

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.

The data published with NAICS code 333511 include the following SIC industry:

3544 Special dies, tools, jigs, and fixtures (pt)

333512 Machine Tool (Metal Cutting Types) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal cutting machine tools (except handtools).

The data published with NAICS code 333512 include the following SIC industries:

3541 Machine tools, metal cutting types

3699 Electrical equipment and supplies, n.e.c. (pt)

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.

The data published with NAICS code 333513 include the following SIC industries:

3542 Machine tools, metal forming types

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.

The data published with NAICS code 333514 include the following SIC industry:

3544 Special dies, tools, jigs, and fixtures (pt)

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.

The data published with NAICS code 333515 include the following SIC industry:

3545 Machine tool accessories (pt)

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.

The data published with NAICS code 333516 include the following SIC industry:

3547 Rolling mill machinery

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).

The data published with NAICS code 333518 include the following SIC industry:

3549 Metalworking machinery, n.e.c.

3336 Engine, Turbine, and Power Transmission Equipment Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33361, Engine, Turbine, and Power Transmission Equipment Manufacturing.

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.

The data published with NAICS code 333611 include the following SIC industry:

3511 Turbines and turbine generator sets

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).

The data published with NAICS code 333612 include the following SIC industry:

3566 Speed changers, drives, and gears

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, brakes and clutches (except motor vehicle and electromagnetic industrial control), couplings, joints, and drive chains.

The data published with NAICS code 333613 include the following SIC industry:

3568 Power transmission equipment, n.e.c.

333618 Other Engine Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing internal combustion engines (except automotive gasoline and aircraft).

The data published with NAICS code 333618 include the following SIC industries:

3519 Internal combustion engines, n.e.c. (pt)

3699 Electrical equipment and supplies, n.e.c. (pt)

3339 Other General-Purpose Machinery Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33391, Pump and Compressor Manufacturing; 33392, Material Handling Equipment Manufacturing; and 33399, 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.

The data published with NAICS code 333911 include the following SIC industries:

3561 Pumps and pumping equipment

3743 Railroad equipment (pt)

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.

The data published with NAICS code 333912 include the following SIC industry:

3563 Air and gas compressors

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.

The data published with NAICS code 333913 include the following SIC industry:

3586 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.

The data published with NAICS code 333912 include the following SIC industry:

3534 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.

The data published with NAICS code 333922 include the following SIC industries:

3523 Farm machinery and equipment (pt)

3535 Conveyors and conveying equipment

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.

The data published with NAICS code 333923 include the following SIC industries:

3531 Construction machinery (pt)

3536 Hoists, cranes, and monorails

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.

The data published with NAICS code 333924 include the following SIC industry:

3537 Industrial trucks and tractors (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332994 do not include establishments primarily engaged in the manufacture of tranquilizer guns. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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, pneumatic) handtools, such as drills, screwguns, circular saws, chain saws, staplers, and nailers.

The data published with NAICS code 333991 include the following SIC industry:

3546 Power-driven handtools

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).

The data published with NAICS code 333992 include the following SIC industries:

3548 Welding apparatus (pt)

3699 Electrical equipment and supplies, n.e.c. (pt)

333993 Packaging Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing packaging machinery, such as wrapping, bottling, canning, and labeling machinery.

The data published with NAICS code 333993 include the following SIC industry:

3565 Packaging machinery

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, wood).

The data published with NAICS code 333994 include the following SIC industry:

3567 Industrial furnaces and ovens

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.

The data published with NAICS code 333995 include the following SIC industries:

3593 Fluid power cylinders and actuators

3728 Aircraft parts and equipment, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 333995 include establishments primarily engaged in the manufacture of aerospace-type fluid power actuators. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 333996 include the following SIC industries:

3594 Fluid power pumps and motors

3728 Aircraft parts and equipment, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 333996 include establishments primarily engaged in the manufacture of aerospace-type fluid power actuators. The NAICS definitions will be fully implemented with the 2002 Economic Census.

333997 Scale and Balance (Except Laboratory) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing scales and balances (except laboratory).

The data published with NAICS code 333997 include the following SIC industry:

3596 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).

The data published with NAICS code 333999 include the following SIC industries:

3569 General industrial machinery, n.e.c.

3599 Industrial machinery, n.e.c. (pt)

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 NAICS industry group includes establishments classified in NAICS Industry 33411, Computer and Peripheral Equipment Manufacturing.

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.

The data published with NAICS code 334111 include the following SIC industry:

3571 Electronic computers

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.

The data published with NAICS code 334112 include the following SIC industry:

3572 Computer storage devices

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.

The data published with NAICS code 334113 include the following SIC industry:

3575 Computer terminals

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).

The data published with NAICS code 334119 include the following SIC industries:

3577 Computer peripheral equipment, n.e.c.

3578 Calculating and accounting equipment (pt)

3699 Electrical equipment and supplies, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 334119 include establishments primarily engaged in the manufacture of laser products.

3342 Communications Equipment Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33421, Telephone Apparatus Manufacturing; 33422, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing; and 33429, 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 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.

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.

The data published with NAICS code 334210 include the following SIC industry:

3661 Telephone and telegraph apparatus (pt)

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.

The data published with NAICS code 334220 include the following SIC industries:

3663 Radio and TV communications equipment

3679 Electronic components, n.e.c. (pt)

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).

The data published with NAICS code 334290 include the following SIC industry:

3669 Communications equipment, n.e.c.

3343 Audio and Video Equipment Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33431, Audio and Video Equipment Manufacturing.

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.

The data published with NAICS code 334310 include the following SIC industry:

3651 Household audio and video equipment

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334310 do not include establishments primarily engaged in the manufacture of radio headphones. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3344 Semiconductor and Other Electronic Component Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33441, Semiconductor and Other Electronic Component Manufacturing.

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.

The data published with NAICS code 334411 include the following SIC industries:

3671 Electron 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.

The data published with NAICS code 334412 include the following SIC industry:

3672 Printed circuit boards

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.

The data published with NAICS code 334413 include the following SIC industry:

3674 Semiconductors and related devices

334414 Electronic Capacitor Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electronic fixed and variable capacitors and condensers.

The data published with NAICS code 334414 include the following SIC industry:

3675 Electronic capacitors

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.

The data published with NAICS code 334415 include the following SIC industry:

3676 Electronic resistors

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.

The data published with NAICS code 334416 include the following SIC industries:

3661 Telephone and telegraph apparatus (pt)

3677 Electronic coils and transformers

3825 Instruments to measure electricity (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334416 include establishments primarily engaged in the manufacture of telephone transformers or portable instrument transformers. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 334417 include the following SIC industry:

3678 Electronic connectors

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.

The data published with NAICS code 334418 include the following SIC industries:

3661 Telephone and telegraph apparatus (pt)

3679 Electronic components, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334418 do not include

establishments primarily engaged in the manufacture of plotter controllers. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

The data published with NAICS code 334419 include the following SIC industry:

3679 Electronic components, n.e.c. (pt)

3345 Navigational, Measuring, Medical, and Control Instruments Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33451, Navigational, Measuring, Medical, and Control Instruments Manufacturing.

33451 Navigational, Measuring, Medical, 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.

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.

The data published with NAICS code 334510 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3842 Surgical appliances and supplies (pt)

3845 Electromedical equipment

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 334510 include establishments primarily engaged in the manufacture of electro-medical laser products.

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.

The data published with NAICS code 334511 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3812 Search and navigation equipment

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 334511 include establishments primarily engaged in the manufacture of search and detection laser products.

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.

The data published with NAICS code 334512 include the following SIC industry:

3822 Environmental controls

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 (monitor, analyze, and so forth) industrial process variables, such as temperature, humidity, pressure, vacuum, combustion, flow, level, viscosity, density, acidity, concentration, and rotation.

The data published with NAICS code 334513 include the following SIC industry:

3823 Process control instruments

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.

The data published with NAICS code 334514 include the following SIC industry:

3824 Fluid meters and counting devices

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334514 do not include establishments primarily engaged in the manufacture of automotive ammeters and voltmeters or motor vehicle gauges. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 334515 include the following SIC industry:

3825 Instruments to measure electricity (pt)

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.

The data published with NAICS code 334516 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3826 Analytical instruments

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 334516 include establishments primarily engaged in the manufacture of analytical and scientific laser products.

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, research and scientific evaluation. Irradiation can take the form of beta-rays, gamma-rays, X-rays, or other ionizing radiation.

The data published with NAICS code 334517 include the following SIC industry:

3844 X-ray apparatus and tubes

334518 Watch, Clock, and Parts 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.

The data published with NAICS code 334518 include the following SIC industries:

3495 Wire springs (pt)

3579 Office machines, n.e.c. (pt)

3873 Watches, clocks, and watchcases

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334518 do not include establishments primarily engaged in the manufacture of electronic chronometers or watch jewels. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

The data published with NAICS code 334519 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3829 Measuring and controlling devices, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 334519 include establishments primarily engaged in the manufacture of commercial geophysical, meteorological, survey, and drafting laser products.

3346 Manufacturing and Reproducing Magnetic and Optical Media

This NAICS industry group includes establishments classified in NAICS Industry 33461, Manufacturing and Reproducing Magnetic and Optical 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.

The data published with NAICS code 334611 include the following SIC industries:

7379 Computer Related Services, n.e.c. (pt)

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.

The data published with NAICS code 334612 include the following SIC industries:

3652 Prerecorded records and tapes

7819 Services allied to motion pictures (pt)

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.

The data published with NAICS code 334613 include the following SIC industry:

3695 Magnetic and optical recording media

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334613 do not include establishments primarily engaged in the manufacture of magnetic tape cleaners. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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 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 NAICS industry group includes establishments classified in the following NAICS Industries: 33511, Electric Lamp Bulb and Parts Manufacturing; and 33512, Lighting Fixture Manufacturing.

33511 Electric Lamp Bulb and Parts 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).

The data published with NAICS code 335110 include the following SIC industry:

3641 Electric lamps

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.

The data published with NAICS code 335121 include the following SIC industries:

- 3089 Plastics products, n.e.c. (pt)
- 3645 Residential lighting fixtures
- 3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 335121 include establishments primarily engaged in the manufacture of plastic lampshades. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 335122 include the following SIC industry:

- 3646 Commercial 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 electric lighting fixtures) and nonelectric lighting equipment.

The data published with NAICS code 335129 include the following SIC industries:

- 3648 Lighting equipment, n.e.c.
- 3699 Electrical equipment and supplies, n.e.c. (pt)

3352 Household Appliance Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33521, Small Electrical Appliance Manufacturing; and 33522, 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.

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).

The data published with NAICS code 335211 include the following SIC industry:

- 3634 Electric housewares and fans (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 335211 do not include establishments primarily engaged in the manufacture of electric hair clippers for humans. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 335212 include the following SIC industries:

- 3635 Household vacuum cleaners
- 3639 Household appliances, n.e.c. (pt)

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).

The data published with NAICS code 335221 include the following SIC industry:

- 3631 Household cooking equipment

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.

The data published with NAICS code 335222 include the following SIC industry:

3632 Household refrigerators and freezers

335224 Household Laundry Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing household-type laundry equipment.

The data published with NAICS code 335224 include the following SIC industry:

3633 Household laundry equipment

335228 Other Major Household Appliance Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electric and nonelectric major household-type appliances (except cooking equipment, refrigerators, upright and chest freezers, and household-type laundry equipment).

The data published with NAICS code 335228 include the following SIC industry:

3639 Household appliances, n.e.c. (pt)

3353 Electrical Equipment Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33531, Electrical Equipment Manufacturing.

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.

The data published with NAICS code 335311 include the following SIC industries:

3548 Welding apparatus (pt)

3612 Transformers

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.

The data published with NAICS code 335312 include the following SIC industries:

3621 Motors and generators

7694 Armature rewinding shops (pt)

335313 Switchgear and Switchboard Apparatus Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing switchgear and switchboard apparatus.

The data published with NAICS code 335313 include the following SIC industry:

3613 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.

The data published with NAICS code 335314 include the following SIC industry:

3625 Relays and industrial controls

3359 Other Electrical Equipment and Component Manufacturing

This industry group comprises establishments 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.

The data published with NAICS code 335911 include the following SIC industry:

3691 Storage batteries

335912 Primary Battery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing wet or dry primary batteries.

The data published with NAICS code 335912 include the following SIC industry:

3692 Primary batteries, dry and wet

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.

The data published with NAICS code 335921 include the following SIC industry:

3357 Nonferrous wire drawing and insulating (pt)

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.

The data published with NAICS code 335929 include the following SIC industry:

3357 Nonferrous wire drawing and insulating (pt)

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.

The data published with NAICS code 335931 include the following SIC industry:

3643 Current-carrying wiring devices

335932 Noncurrent-Carrying Wiring Device Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing noncurrent-carrying wiring devices.

The data published with NAICS code 335932 include the following SIC industry:

3644 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.

The data published with NAICS code 335991 include the following SIC industry:

3624 Carbon and 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.

The data published with NAICS code 335999 include the following SIC industries:

3629 Electrical industrial apparatus, n.e.c.

3699 Electrical equipment and supplies, n.e.c. (pt)

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 NAICS industry group includes establishments classified in the following NAICS Industries: 33611, Automobile and Light Duty Motor Vehicle Manufacturing; and 33612, Heavy Duty Truck Manufacturing.

33611 Automobile and Light Duty Motor Vehicle Manufacturing

This industry comprises establishments primarily engaged in (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.

The data published with NAICS code 336111 include the following SIC industry:

3711 Motor vehicles and car bodies (pt)

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.

The data published with NAICS code 336112 include the following SIC industry:

3711 Motor vehicles and car bodies (pt)

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.

The data published with NAICS code 336120 include the following SIC industry:

3711 Motor vehicles and car bodies (pt)

3362 Motor Vehicle Body and Trailer Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33621, Motor Vehicle Body and Trailer Manufacturing.

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. 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.

The data published with NAICS code 336211 include the following SIC industries:

3711 Motor vehicles and car bodies (pt)

3713 Truck and bus bodies

3714 Motor vehicle parts and accessories (pt)

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.

The data published with NAICS code 336212 include the following SIC industry:

3715 Truck trailers

336213 Motor Home Manufacturing

This U.S. industry 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.

The data published with NAICS code 336213 include the following SIC industry:

3716 Motor homes

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.

The data published with NAICS code 336214 include the following SIC industries:

3792 Travel trailer and campers

3799 Transportation equipment, n.e.c. (pt)

3363 Motor Vehicle Parts Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33631, Motor Vehicle Gasoline Engine and Engine Parts Manufacturing; 33632, Motor Vehicle Electrical and Electronic Equipment Manufacturing; 33633, Motor Vehicle Steering and Suspension Component (Except Spring) Manufacturing; 33634, Motor Vehicle Brake System Manufacturing; 33635, Motor Vehicle Transmission and Power Train Parts Manufacturing; 33636, Motor Vehicle Seating and Interior Trim Manufacturing; 33637, Motor Vehicle Metal Stamping; and 33639, 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.

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.

The data published with NAICS code 336311 include the following SIC industries:

3592 Carburetors, pistons, rings, and 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.

The data published with NAICS code 336312 include the following SIC industry:

3714 Motor vehicle parts and accessories (pt)

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, ships).

336321 Vehicular Lighting Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing vehicular lighting fixtures.

The data published with NAICS code 336321 include the following SIC industry:

3647 Vehicular lighting equipment

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.

The data published with NAICS code 336322 include the following SIC industries:

3679 Electronic components, n.e.c. (pt)

3694 Engine electrical equipment

3714 Motor vehicle parts and accessories (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 336322 include establishments primarily engaged in the manufacture of electronic control modular chips for motor vehicles. The NAICS definitions will be fully implemented with the 2002 Economic Census.

33633 Motor Vehicle Steering and Suspension Component (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 Component (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).

The data published with NAICS code 336330 include the following SIC industry:

3714 Motor vehicle parts and accessories (pt)

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.

The data published with NAICS code 336340 include the following SIC industries:

3292 Asbestos products (pt)

3714 Motor vehicle parts and accessories (pt)

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.

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.

The data published with NAICS code 336350 include the following SIC industry:

3714 Motor vehicle parts and accessories (pt)

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.

The data published with NAICS code 336360 include the following SIC industries:

2396 Automotive and apparel trimmings (pt)

2399 Fabricated textile products, n.e.c. (pt)

2531 Public building and related furniture (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 336360 do not include establishments primarily engaged in the manufacture of metal motor vehicle seat frames. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 336370 include the following SIC industry:

3465 Automotive stampings

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.

The data published with NAICS code 336391 include the following SIC industry:

3585 Refrigeration and heating equipment (pt)

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).

The data published with NAICS code 336399 include the following SIC industries:

3519 Internal combustion engines, n.e.c. (pt)

3714 Motor vehicle parts and accessories (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 336399 do not include establishments primarily engaged in the manufacture of luggage and utility racks or trailer hitches. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3364 Aerospace Product and Parts Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33641, Aerospace Product and Parts Manufacturing.

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).

The data published with NAICS code 336411 include the following SIC industry:

3721 Aircraft

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 336411 do not include establishments primarily engaged in the manufacture of target drones. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

The data published with NAICS code 336412 include the following SIC industry:

3724 Aircraft engines and engine parts

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.

The data published with NAICS code 336413 include the following SIC industry:

3728 Aircraft parts and equipment, n.e.c. (pt)

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.

The data published with NAICS code 336414 include the following SIC industry:

3761 Guided missiles and 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 (2) developing and making prototypes of guided missile and space vehicle propulsion units and propulsion unit parts.

The data published with NAICS code 336415 include the following SIC industry:

3764 Space propulsion units and 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.

The data published with NAICS code 336419 include the following SIC industry:

3769 Space vehicle equipment, n.e.c.

3365 Railroad Rolling Stock Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33651, Railroad Rolling Stock Manufacturing.

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.

The data published with NAICS code 336510 include the following SIC industries:

3531 Construction machinery (pt)

3743 Railroad equipment (pt)

3366 Ship and Boat Building

This NAICS industry group includes establishments classified in NAICS Industry 33661, Ship and Boat Building.

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 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.

The data published with NAICS code 336611 include the following SIC industry:

3731 Ship building and repairing

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.

The data published with NAICS code 336612 include the following SIC industry:

3732 Boat building and repairing (pt)

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.

The data published with NAICS code 336991 include the following SIC industries:

3751 Motorcycles, bicycles, and parts

3944 Games, toys, and children's vehicles (pt)

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.

The data published with NAICS code 336992 include the following SIC industries:

3711 Motor vehicles and car bodies (pt)

3795 Tanks and tank components

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, armored vehicles, and tanks).

The data published with NAICS code 336999 include the following SIC industry:

3799 Transportation equipment, n.e.c. (pt)

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 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., knock-down). 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.

The data published with NAICS code 3371110 include the following SIC industries:

2434 Wood kitchen cabinets

2541 Wood partitions and fixtures (pt)

5712 Furniture stores (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337110 include establishments primarily engaged in manufacturing wood countertops as part of wood office and store fixtures. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 337121 include the following SIC industries:

2512 Upholstered household furniture

2515 Mattresses and bedsprings (pt)

5712 Furniture stores (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337121 do not include establishments primarily engaged in manufacturing upholstered metal household furniture. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

The data published with NAICS code 337122 include the following SIC industries:

2511 Wood household furniture

5712 Furniture stores (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337122 include establishments primarily engaged in manufacturing wood box spring frames. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

The data published with NAICS code 337124 include the following SIC industry:

2514 Metal household furniture

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337124 include establishments primarily engaged in manufacturing upholstered metal household furniture or metal box spring frames. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

The data published with NAICS code 337125 include the following SIC industry:

2519 Household furniture, n.e.c.

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).

The data published with NAICS code 337127 include the following SIC industries:

2531 Public building and related furniture (pt)

2599 Furniture and fixtures, n.e.c. (pt)

3952 Lead pencils and art goods (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337127 do not include establishments primarily engaged in manufacturing wood or nonwood lunchroom tables and chairs. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 337129 include the following SIC industry:

2517 Wood TV and radio cabinets

3372 Office Furniture (Including Fixtures) Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33721, Office Furniture (Including Fixtures) Manufacturing.

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).

The data published with NAICS code 337211 include the following SIC industry:

2521 Wood office furniture

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.

The data published with NAICS code 337212 include the following SIC industry:

2541 Wood partitions and fixtures (pt)

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).

The data published with NAICS code 337214 include the following SIC industry:

2522 Office furniture, except wood

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.

The data published with NAICS code 337215 include the following SIC industries:

2426 Hardwood dimension and flooring mills (pt)

2541 Wood partitions and fixtures (pt)

2542 Partitions and fixtures, except wood

3499 Fabricated metal products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337215 include establishments primarily engaged in manufacturing wood or non-wood lunchroom tables and chairs, but do not include establishments primarily engaged in manufacturing wood or metal box spring frames, finished plastic furniture parts, convertible bed sleeper mechanisms or chair glides. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 337910 include the following SIC industry:

2515 Mattresses and bedsprings (pt)

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: 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.

The data published with NAICS code 337920 include the following SIC industry:

2591 Drapery hardware, blinds, and shades

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 NAICS industry group includes establishments classified in NAICS Industry 33911, Medical Equipment and Supplies Manufacturing.

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.

The data published with NAICS code 339111 include the following SIC industry:

3821 Laboratory apparatus and furniture

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 339111 do not include establishments primarily engaged in the manufacture of hospital beds or operating tables. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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, electromedical, 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.

The data published with NAICS code 339112 include the following SIC industries:

3829 Measuring and controlling devices, n.e.c. (pt)

3841 Surgical and medical instruments

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).

The data published with NAICS code 339113 include the following SIC industries:

2599 Furniture and fixtures, n.e.c. (pt)

3842 Surgical appliances and supplies (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 339113 do not include establishments primarily engaged in the manufacture of rubber gloves and life jackets. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 339114 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3843 Dental equipment and supplies

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, and reading glasses made to standard powers.

The data published with NAICS code 339115 include the following SIC industry:

3851 Ophthalmic goods

339116 Dental Laboratories

This U.S. industry comprises establishments primarily engaged in manufacturing dentures, crowns, bridges, and orthodontic appliances customized for individual application.

The data published with NAICS code 339116 include the following SIC industry:

8072 Dental laboratories

3399 Other Miscellaneous Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33991, Jewelry and Silverware Manufacturing; 33992, Sporting and Athletic Goods Manufacturing; 33993, Doll, Toy, and Game Manufacturing; 33994, Office Supplies (Except Paper) Manufacturing; 33995, Sign Manufacturing; and 33999, 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 (9) drilling, sawing, and peeling cultured and costume pearls.

339911 Jewelry (Except Costume) Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more 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.

The data published with NAICS code 339911 include the following SIC industries:

3479 Metal coating and allied services (pt)

3911 Jewelry, precious metal

339912 Silverware and Holloware 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 plated ware.

The data published with NAICS code 339912 include the following SIC industries:

3479 Metal coating and allied services (pt)

3914 Silverware and plated ware (pt)

339913 Jewelers' Material and Lapidary Work Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more 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.

The data published with NAICS code 339913 include the following SIC industry:

3915 Jewelers' materials and lapidary work

339914 Costume Jewelry and Novelty Manufacturing

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

The data published with NAICS code 339914 include the following SIC industries:

3479 Metal coating and allied services (pt)

3499 Fabricated metal products, n.e.c. (pt)

3961 Costume jewelry

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).

The data published with NAICS code 339920 include the following SIC industry:

3949 Sporting and athletic goods, n.e.c.

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 339920 do not include establishments primarily engaged in the manufacture of wet suits. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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).

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.

The data published with NAICS code 339931 include the following SIC industry:

3942 Dolls

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).

The data published with NAICS code 339932 include the following SIC industry:

3944 Games, toys, and children's vehicles (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 339932 do not include

establishments primarily engaged in the manufacture of rubber toys, except dolls or embroidery kits. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 339941 include the following SIC industry:

3951 Pens and mechanical pencils

339942 Lead Pencil and Art Goods 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.

The data published with NAICS code 339942 include the following SIC industries:

2531 Public building and related furniture (pt)

3579 Office machines, n.e.c. (pt)

3952 Lead pencils and art goods (pt)

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.

The data published with NAICS code 339943 include the following SIC industry:

3953 Marking devices

339944 Carbon Paper and Inked Ribbon Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing carbon paper and inked ribbons.

The data published with NAICS code 339944 include the following SIC industry:

3955 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, 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, displays).

The data published with NAICS code 339950 include the following SIC industries:

3993 Signs and advertising specialties

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.

The data published with NAICS code 339991 include the following SIC industry:

3053 Gaskets, packing and sealing devices

339992 Musical Instrument Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing musical instruments (except toys).

The data published with NAICS code 339992 include the following SIC industry:

3931 Musical instruments

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).

The data published with NAICS code 339993 include the following SIC industries:

3131 Footwear cut stock and findings (pt)

3965 Fasteners, buttons, needles, and pins

339994 Broom, Brush, and Mop Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing brooms, mops, and brushes.

The data published with NAICS code 339994 include the following SIC industries:

2392 Housefurnishings, n.e.c. (pt)

3991 Brooms and brushes

339995 Burial Casket Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing burial caskets, cases, and vaults (except concrete).

The data published with NAICS code 339995 include the following SIC industry:

3995 Burial caskets

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).

The data published with NAICS code 339999 include the following SIC industries:

2499 Wood products, n.e.c. (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 339999 do not include establishments primarily engaged in the manufacture of electronic cigarette lighters. The NAICS definitions will be fully implemented with the 2002 Economic Census.

Appendix C.

Coverage and Methodology

MAIL/NONMAIL UNIVERSE

The manufacturing universe includes about 400,000 establishments. This number includes those industries in the North American Industry Classification System (NAICS) definition of manufacturing, but not those industries leaving the manufacturing sector in the classification change. The amounts of information requested from manufacturing establishments were dependent upon a number of factors. The more important considerations were the size of the company and whether it was included in the annual survey of manufactures (ASM). The methods of obtaining information for the various subsets of the universe to arrive at the aggregate figures shown in the publication are described below:

1. Small single-establishment companies not sent a report form.

Approximately 40 percent of the 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 our ability to assign the correct six-digit NAICS industry classification to the establishment. For each four-digit Standard Industrial Classification (SIC) industry code, an annual payroll 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 which 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” (nsc) categories.

The industry classification codes included in the administrative-record files were assigned on the basis of brief descriptions of the general activity of the establishment. As a result, an indeterminate number of establishments were erroneously coded to a four-digit SIC industry and then erroneously re-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 SIC group classification codes available in the files. For the 1997 Economic Census – Manufacturing, these establishments were sent a separate classification form, which requested information on the products and services of the establishment. This form was used to code many of these establishments to the appropriate six-digit NAICS level. Establishments that did not return the classification form were coded later to those six-digit NAICS industries identified as “All other” 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.

2. Establishments sent a report form.

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

- 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-1000) replaces the first page of the regular census form for those establishments included in the ASM. In addition to information on employment, payroll, and other items normally requested on the regular census form, establishments in the ASM sample were requested to supply 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 480 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 many cases, the quantity of the product shipped during the survey year. Space also was provided for the respondent to describe products not specifically identified on the form.

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

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

b. Large and medium establishments (non-ASM).

Approximately 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 or 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 nsk categories.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each of the establishments covered in the 1997 Economic Census – Manufacturing was classified in 1 of 480 industries (473 manufacturing industries and 7 former manufacturing industries) in accordance with the industry definitions in the 1997 NAICS Manual. This is the first edition of the NAICS Manual and it is a major change from the 1987 SIC Manual that was used previously. Appendix A of the 1997 NAICS Manual notes the comparability between the 1987 SIC and 1997 NAICS classification systems. When applicable, Appendix G 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 1997, 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). This represents an expansion of the four-digit SIC-based U.S. industries from 459 in 1987. Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they originate. In the new system, there are about 1,500 product classes (seven-digit codes), about 6,000 census products, and an additional 3,700 CIR products (ten-digit codes). The ten-digit products are considered the primary products of the industry with the same first six digits. These counts do not include the seven former manufacturing industries that are included in the 1997 Economic Census – Manufacturing.

For the 1997 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 1997, 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.

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 which may make both primary and secondary products. Product statistics, however, represent the output of all establishments without regard for the classification of the producing establishment. For this reason, when relating the industry statistics, especially the value of shipments, 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 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 1997, 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 1997 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 annual survey of manufactures (ASM) sample is drawn for the second survey year after a census. The most recent sample was drawn for the 1994 survey year based on the 1992 Census of Manufactures. This sample will be in place through the 1998 ASM.

In 1992, there were approximately 370,000 individual manufacturing establishments. For sample efficiency and cost considerations, the 1992 manufacturing population was partitioned into two components for developing estimates within the ASM; a mail stratum and a nonmail stratum.

Mail stratum. The mail stratum of the survey is comprised of larger single-location manufacturing companies and all manufacturing establishments of multiunit companies (companies that operate at more than one physical location). Approximately 230,000 of the 370,000 establishments in the 1992 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 1994 survey, a new sample of approximately 58,000 individual establishments was selected from the mail stratum assembled from the 1992 census. Supplemental samples representing both 1993 and 1994 births (newly active establishments that were not included in the 1992 census) were also selected. Establishments selected for the sample are mailed an ASM survey questionnaire for each year through 1998.

The 1994-98 ASM sample design is similar to the one used since 1984. Companies in the 1992 Census of Manufactures 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 1994-98 sample, there are approximately 650 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. In addition, all establishments producing products in SIC 3571 (Electronic Computers) were defined as certainties. Across these three 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 1992 Census of Manufactures.

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 1992 industry classification, its 1992 product class data, and the historical variability of the year-to-year estimates of the product class estimates. For each product class (1,755) and four-digit industry (459), 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 our 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) which permits us to prevent small establishments from being selected in consecutive samples without introducing a bias into the survey estimates.

Nonmail component. The initial nonmail component of the survey was comprised of approximately 140,000 small, single-establishment companies that were tabulated as administrative records in the 1992 Census of Manufactures. 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.

DESCRIPTION OF THE ASM ESTIMATING PROCEDURE

Most of the ASM 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 1992 (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 1993-1997 ASM estimates, the 1992 Census of Manufactures values serve as the base year. For the 1998 ASM, the base will be updated to be the 1997 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 contains approximately 170,000 individual establishments in 1994, 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.

QUALIFICATIONS OF THE ASM DATA

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.

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.

DATA FROM THE CURRENT INDUSTRIAL REPORTS (CIR)

The CIR program provides product statistics for selected manufacturing industries at the U.S. level annually and, in some cases, monthly and/or quarterly. When detail product data are collected in the CIR, they are not also collected in the census. However, the annual CIR data are included in the census Product Summary report.

The CIR program uses a unified data collection, processing, and publication system. The Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic

census – manufacturing. The economic census – manufacturing provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. While the CIR program includes both mandatory and voluntary surveys, the annual data are mandatory.

DUPLICATION IN COST OF MATERIALS AND VALUE OF SHIPMENTS

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

VALUE OF INDUSTRY SHIPMENTS COMPARED WITH VALUE OF PRODUCT SHIPMENTS

The 1997 Economic Census – 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.

Appendix D. Geographic Notes

VIRGINIA

Castlewood was incorporated in April 1991, but this change was not submitted to the Census Bureau until June 1994.

Farmville is in Cumberland and Prince Edward Counties.

Halifax County includes South Boston, formerly an independent city, whose area reverted to Halifax County.

South Boston was formerly an independent city; its area reverted to Halifax County in June 1995.

Appendix E. Metropolitan Areas

VIRGINIA

Charlottesville, VA MSA

Albemarle County, VA
Fluvanna County, VA
Greene County, VA
Charlottesville, VA (IC)

Danville, VA MSA

Pittsylvania County, VA
Danville, VA (IC)

Johnson City—Kingsport—Bristol, TN—VA MSA

Carter County, TN
Hawkins County, TN
Sullivan County, TN
Unicoi County, TN
Washington County, TN
Scott County, VA
Washington County, VA
Bristol, VA (IC)

Lynchburg, VA MSA

Amherst County, VA
Bedford County, VA
Campbell County, VA
Bedford, VA (IC)
Lynchburg, VA (IC)

Norfolk—Virginia Beach—Newport News, VA—NC MSA

Currituck County, NC
Gloucester County, VA
Isle of Wight County, VA
James City County, VA
Mathews County, VA
York County, VA
Chesapeake, VA (IC)

Norfolk—Virginia Beach—Newport News, VA—NC MSA—Con.

Hampton, VA (IC)
Newport News, VA (IC)
Norfolk, VA (IC)
Poquoson, VA (IC)
Portsmouth, VA (IC)
Suffolk, VA (IC)
Virginia Beach, VA (IC)
Williamsburg, VA (IC)

Richmond—Petersburg, VA MSA

Charles City County, VA
Chesterfield County, VA
Dinwiddie County, VA
Goochland County, VA
Hanover County, VA
Henrico County, VA
New Kent County, VA
Powhatan County, VA
Prince George County, VA
Colonial Heights, VA (IC)
Hopewell, VA (IC)
Petersburg, VA (IC)
Richmond, VA (IC)

Roanoke, VA MSA

Botetourt County, VA
Roanoke County, VA
Roanoke, VA (IC)
Salem, VA (IC)

Washington, DC—MD—VA—WV PMSA

District of Columbia, DC
Calvert County, MD
Charles County, MD

Washington, DC—MD—VA—WV PMSA—Con.

Frederick County, MD
Montgomery County, MD
Prince George's County, MD
Arlington County, VA
Clarke County, VA
Culpeper County, VA
Fairfax County, VA
Fauquier County, VA
King George County, VA
Loudoun County, VA
Prince William County, VA
Spotsylvania County, VA
Stafford County, VA
Warren County, VA
Alexandria, VA (IC)
Fairfax, VA (IC)
Falls Church, VA (IC)
Fredericksburg, VA (IC)
Manassas, VA (IC)
Manassas Park, VA (IC)
Berkeley County, WV
Jefferson County, WV

Washington—Baltimore, DC—MD—VA—WV CMSA

Baltimore, MD PMSA
Anne Arundel County, MD
Baltimore County, MD
Carroll County, MD
Harford County, MD
Howard County, MD
Queen Anne's County, MD
Baltimore, MD (IC)

Washington—Baltimore, DC—MD—VA—WV CMSA—Con.

Hagerstown, MD PMSA
Washington County, MD
Washington, DC—MD—VA—WV PMSA
District of Columbia, DC
Calvert County, MD
Charles County, MD
Frederick County, MD
Montgomery County, MD
Prince George's County, MD
Arlington County, VA
Clarke County, VA
Culpeper County, VA
Fairfax County, VA
Fauquier County, VA
King George County, VA
Loudoun County, VA
Prince William County, VA
Spotsylvania County, VA
Stafford County, VA
Warren County, VA
Alexandria, VA (IC)
Fairfax, VA (IC)
Falls Church, VA (IC)
Fredericksburg, VA (IC)
Manassas, VA (IC)
Manassas Park, VA (IC)
Berkeley County, WV
Jefferson County, WV

