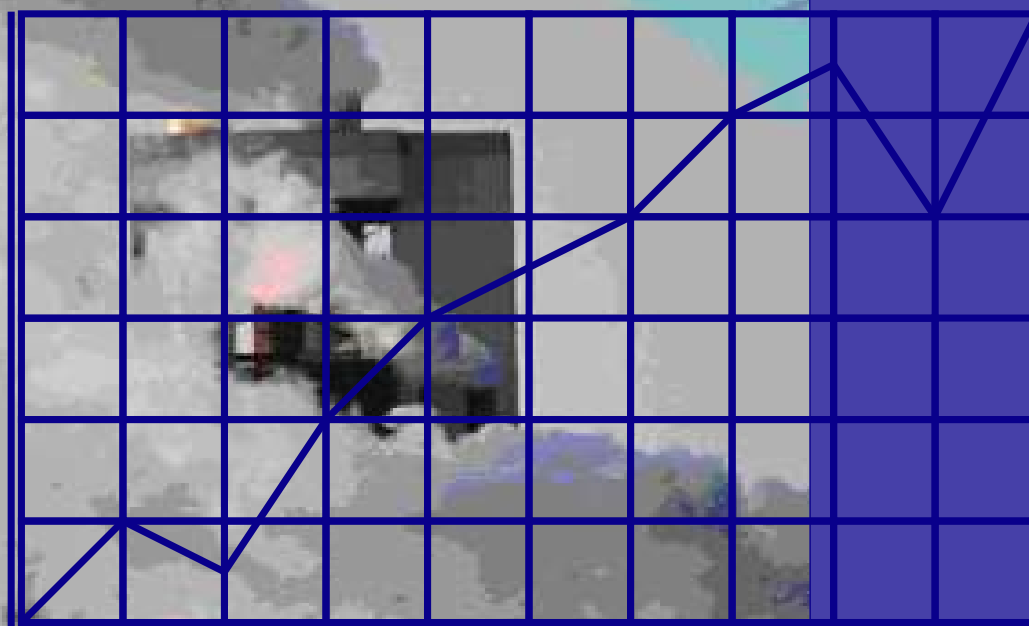


# Statistics for Industry Groups and Industries: 2003

Issued April 2005

M03(AS)-1 (RV)

## Annual Survey of Manufactures



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

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## Annual Survey of Manufactures



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**Economics and Statistics Administration**  
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Under Secretary for Economic Affairs

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**Thomas L. Mesenbourg,**  
Assistant Director  
for Economic Programs

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

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# Annual Survey of Manufactures

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## SCOPE

The Annual Survey of Manufactures (ASM) provides sample estimates of statistics for all manufacturing establishments with one or more paid employees. The Manufacturing sector (sector 31-33) comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the activity is appropriately classified in Sector 23, Construction. This report presents manufacturing establishment statistics from the 2003 ASM.

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 of these 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 North American Industry Classification System (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 within the North American Industry Classification System (NAICS) 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.

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

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

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

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

**Definitions.** Terms are defined in Appendix A, Explanation of Terms.

## REPORTS

The Annual Survey of Manufactures (ASM) consists of manufacturing establishment statistics from the 2003 ASM and revised 2002 Economic Census — Manufacturing data. Three reports are issued from this survey. Each of the following ASM reports provide sample estimates of statistics on all manufacturing establishments with one or more paid employees.

**AS-1 — Statistics for Industry Groups and Industries.** This report presents manufacturing establishment statistics for industry groups and industries from the Annual Survey of Manufactures (ASM). This ASM report presents 2002 and 2003 data at the three-, four-, and five-digit North American Industry Classification System (NAICS) levels, and additional detail corresponding to individual six-digit NAICS industries or groups of six-digit NAICS industries. The 2002 data are from the 2002 Economic Census — Manufacturing and include revisions made to the data since its initial release. This report also includes a historic table with data for the all-manufacturing level back to 1977. This report includes such statistics as number of establishments, employment, payroll, value added by manufacture, cost of materials consumed, detailed capital expenditures, supplemental labor costs, fuels and electric energy used, inventories by stage of fabrication, value of shipments, detailed miscellaneous receipts, and interplant transfers.

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**AS-2 — Value of Product Shipments.** This report presents value of product shipments from the Annual Survey of Manufactures (ASM). This ASM report presents 2002 and 2003 shipments data for the 473 six-digit North American Industry Classification System (NAICS) product groups, 1,450 seven-digit NAICS product classes, and products primary to more than one industry.

**AS-3 — Geographic Area Statistics.** This report presents similar statistics at the “all manufacturing” level for the United States, each state, and the District of Columbia. This Annual Survey of Manufactures (ASM) report presents 2002 and 2003 data at the three- and four-digit North American Industry Classification System (NAICS) levels for employment, payroll, value added by manufacture, cost of materials consumed, value of shipments, and total capital expenditures. Data for detailed capital expenditures, supplemental labor costs, fuels and electric energy used, and inventories by stage of fabrication are also presented at the US and state levels.

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

## **GEOGRAPHIC AREAS COVERED**

1. The United States as a whole.
2. States and the District of Columbia.

## **DOLLAR VALUES**

All dollar values presented are expressed in current dollars; i.e., 2003 data are expressed in 2003 dollars, and 2002 data in 2002 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

## **COMPARABILITY OF THE 2003 AND PRIOR YEARS ANNUAL SURVEY OF MANUFACTURES**

The 2003 Annual Survey of Manufactures (ASM) and prior years present data based on the North American Industry Classification System (NAICS). While there were NAICS revisions to selected industries for the 2002 Economic Census, this sector was not affected by those revisions.

However, for the historical data, the adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census — Manufacturing has had a major impact on the comparability of current and historic data. 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 prior to 1997.

While most of the changes affecting the manufacturing sector were changes within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those industries that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an Standard Industrial Classification (SIC) basis, it would be approximately 3 percent higher.

Another change resulting from the conversion to the North American Industry Classification System (NAICS) is that data for auxiliaries and central administrative offices (CAOs) associated with manufacturers are not presented with the manufacturing data.

It should also be noted that while the Census Bureau published “new capital expenditures” in the past, starting with the 1997 Economic Census — Manufacturing, the Census Bureau began publishing “total capital expenditures.” The historic data presented in this report have been adjusted to be consistent with the new policy.



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For 2003, there have been several additional data tables added which did not exist in prior Annual Survey of Manufactures (ASM) publications. These tables for 2003 include value of shipments for industry groups and industries and products primary to more than one industry. Also for the AS-1, tables 2 through 7, a new industry grouping (North American Industry Classification System (NAICS) five-digit) will be published for certain industries. These groupings correspond to two or more individual six-digit NAICS industries within that five-digit NAICS Classification. The ASM industry groupings descriptions can be found in Appendix B, NAICS Codes, Titles, and Descriptions. The comparability tables can be found in Appendix F, Comparability of NAICS Codes and NAICS based Codes: 2002 to 2003.

### **RELIABILITY OF DATA**

All data compiled for the manufacturing sector are subject to sampling errors as well as nonsampling errors. Nonsampling errors can be attributed to many sources: inability to identify all cases in the actual universe; definition and classification difficulties; differences in the interpretation of questions; errors in recording or coding the data obtained; and other errors of collection, response, coverage, processing, and estimation for missing or misreported data.

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

### **DISCLOSURE**

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

The disclosure analysis for "industry statistics" files is based on the total value of shipments. When the total value of shipments cannot be shown without disclosing information for individual companies, the complete line is suppressed except for capital expenditures. Nonetheless, the suppressed data are included in higher-level totals. A separate disclosure analysis is performed for capital expenditures, which can be suppressed even though value of shipments data are published and vice versa.

### **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, which is collected for years ending in 2 and 7. The ASM is a probability-based sample of approximately 55,000 establishments and collects many of the same industry statistics (including employment, payroll, value of shipments, etc.) as the Economic Census — Manufacturing. 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 sub-state geographic data. In addition to the Economic Census — Manufacturing, the Census Bureau conducts the Current Industrial Reports (CIR) program. The CIR program publishes selected detailed product statistics for selected manufacturing industries at the U.S. level annually and, in some cases, monthly and/or quarterly. The Census Bureau also conducts the monthly Manufacturers' Shipments, Inventories, and Orders (M3) Program, which publishes detailed inventory statistics for manufacturing industries at the U.S. level.

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

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## **CONTACTS FOR DATA USERS**

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

## **ABBREVIATIONS AND SYMBOLS**

The following abbreviations and symbols are used with these data:

A	Standard error of 100 percent or more
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals
N	Not available or not comparable
S	Withheld because estimates did not meet publication standards
X	Not applicable
r	Revised
nsk	Not specified by kind
–	Represents zero (page image/print only)

**Table 1. Statistics for All Manufacturing Establishments: 2003 and Earlier Years**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Year <sup>1</sup>	Establishments <sup>2</sup>		All employees <sup>3</sup>		Production workers			Value added <sup>5</sup> (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments <sup>6</sup> (\$1,000)	Total capital expenditures <sup>7</sup> (\$1,000)
	Total	With 20 employees or more	Number <sup>4</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
2003	N	N	13 875 542	565 026 110	9 794 517	19 886 392	329 715 154	1 912 124 316	2 071 515 197	3 979 917 101	115 004 095
2002	350 815	108 762	14 715 371	576 494 937	10 352 516	20 489 145	337 118 875	1 892 790 646	2 024 573 318	3 920 631 826	126 012 978
2001	N	N	15 845 612	591 558 514	11 212 063	22 384 101	342 268 242	1 851 693 858	2 106 859 943	3 970 204 964	143 082 995
2000	N	N	16 651 904	617 211 426	11 943 646	23 954 395	363 380 819	1 973 622 421	2 245 839 293	4 208 582 047	154 478 902
1999	N	N	16 685 639	601 472 998	11 977 196	24 209 596	355 790 664	1 954 498 206	2 084 316 398	4 031 884 590	150 325 065
1998	N	N	16 944 977	586 957 735	12 189 519	24 582 584	348 953 570	1 891 265 885	2 018 054 521	3 899 809 755	152 708 100
1997	362 829	119 748	16 805 127	569 808 845	12 065 257	24 183 271	338 267 197	1 825 688 027	2 015 424 556	3 834 700 920	151 510 757
1996	N	N	17 326 300	560 518 300	12 167 800	25 010 500	324 495 800	1 749 661 900	1 975 362 100	3 715 428 200	146 467 500
1995	N	N	17 419 200	545 362 700	12 253 100	25 072 000	317 767 500	1 711 442 300	1 897 570 700	3 594 359 600	134 318 100
1994	N	N	17 059 400	522 565 700	11 947 100	24 560 100	304 663 000	1 605 980 000	1 752 735 100	3 348 019 200	118 664 700
1993	N	N	16 943 500	504 363 100	11 726 200	23 845 100	290 293 200	1 483 054 100	1 647 492 600	3 127 620 400	108 628 500
1992	370 912	118 967	16 948 900	494 108 900	11 640 900	23 563 100	281 538 200	1 424 699 700	1 571 424 500	3 004 722 800	110 643 800
1991	N	N	17 081 200	477 174 600	11 652 000	23 383 000	270 601 000	1 341 386 200	1 531 221 300	2 878 164 800	103 152 900
1990	N	N	17 796 200	480 223 500	12 232 700	24 463 300	275 208 400	1 346 970 100	1 574 617 300	2 912 228 500	106 462 800
1989	N	N	18 045 700	470 479 200	12 535 500	24 933 900	273 119 900	1 325 433 600	1 532 330 000	2 840 376 000	101 894 300
1988	N	N	17 989 600	453 309 400	12 438 700	24 815 400	265 147 100	1 269 313 000	1 444 500 900	2 695 432 300	84 706 100
1987	358 952	120 822	17 718 000	428 480 000	12 280 400	24 302 700	251 449 500	1 165 740 800	1 319 844 600	2 475 939 100	85 662 100
1986	N	N	17 086 800	402 466 700	11 765 400	23 178 200	236 599 400	1 035 437 400	1 217 608 600	2 260 314 600	80 795 100
1985	N	N	17 508 300	396 610 500	12 174 400	23 731 600	235 790 800	1 000 142 000	1 276 009 600	2 280 183 800	91 244 900
1984	N	N	17 854 900	384 921 500	12 572 800	24 637 100	231 783 900	983 227 700	1 288 413 600	2 253 429 300	80 659 900
1983	N	N	17 453 100	354 232 200	12 203 000	23 611 600	212 416 400	882 014 500	1 170 237 800	2 045 853 300	67 479 800
1982	348 385	117 959	17 818 100	341 406 200	12 400 600	23 538 300	204 787 200	824 117 700	1 130 142 700	1 960 205 800	77 045 700
1981	N	N	18 919 800	341 319 800	13 542 800	26 233 100	212 200 900	837 506 500	1 193 969 600	2 017 542 500	83 767 000
1980	N	N	19 311 400	316 494 500	13 900 100	26 745 700	198 164 000	773 831 300	1 093 567 600	1 852 668 300	74 624 600
1979	N	N	19 756 500	298 529 100	14 537 800	28 324 300	192 881 500	747 480 500	999 157 500	1 727 214 600	65 796 600
1978	N	N	19 239 400	271 540 900	14 228 700	27 676 500	176 416 800	657 412 000	877 424 700	1 522 937 300	58 346 000
1977	350 757	113 843	18 515 900	242 031 900	13 691 000	26 686 700	157 163 700	585 165 600	782 417 700	1 358 526 400	51 907 300

<sup>1</sup>Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM). Also, in census year 1997, collection and publication of census and subsequent ASM data changed from the Standard Industrial Classification (SIC) basis to the North American Industry Classification System (NAICS) basis. For a discussion of the impact of this change on the data, see introductory text.

<sup>2</sup>Includes establishments with payroll at any time during year. Beginning in census year 1997, auxiliary establishments associated with manufacturing companies are classified separately. For 1996 and earlier years, establishment counts for auxiliaries are included.

<sup>3</sup>Figures include employment and payroll data for employees at manufacturing establishments engaged in nonmanufacturing activities (such as distribution and construction). Beginning in census year 1997, auxiliary establishments associated with manufacturing companies are classified separately. For 1996 and earlier years, employment and payroll data for auxiliaries are included.

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

<sup>5</sup>Beginning in 1982, all respondents were requested to report their inventories at cost or market prior to adjustment to LIFO cost. This is a change from prior years in which respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, 1982 data for value added are not comparable to prior years.

<sup>6</sup>Data represent total value of shipments for most industries. For industries 311411, 311412, 311421, 311422, 311711, 311712, 311941, 311999, 312140, 312210, 312221, and 312229 value of production is shown. For industry 336611, value of work done is shown.

<sup>7</sup>Beginning in 1997, the data shown are for total capital expenditures (new and used). Prior to 1997, only data for new capital expenditures were shown in this table. For 1996 and earlier years, data have been adjusted to show total capital expenditures.

Note 1: Previous years' data may differ from that published in the 2002 Economic Census because of changes encountered in subsequent review of the 2003 Annual Survey of Manufactures (ASM).

Note 2: The data in this table are based on the 2003 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The data in this table contain sampling errors and nonsampling errors. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 2. Statistics for Industry Groups and Industries: 2003 and 2002**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments <sup>3</sup> (\$1,000)	Relative standard error of estimate <sup>4</sup> (percent) for column—	
		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
<b>31-33</b>	<b>Manufacturing</b>	<b>13 875 542</b>	<b>565 026 110</b>	<b>9 794 517</b>	<b>19 886 392</b>	<b>329 715 154</b>	<b>1 912 124 316</b>	<b>2 071 515 197</b>	<b>3 979 917 101</b>	<b>1</b>	<b>1</b>
		<b>14 715 371</b>	<b>576 494 937</b>	<b>10 352 516</b>	<b>20 489 145</b>	<b>337 118 875</b>	<b>1 892 790 646</b>	<b>2 024 573 318</b>	<b>3 920 631 826</b>	<b>X</b>	<b>X</b>
311	Food manufacturing	1 467 372	45 685 146	1 121 219	2 279 743	30 679 850	211 697 333	272 212 752	482 815 049	1	1
		1 508 109	45 569 858	1 141 525	2 282 558	30 314 652	204 559 890	256 158 210	460 019 582	X	X
3111	Animal food manufacturing	46 684	1 805 066	31 097	66 248	1 060 066	11 145 216	18 176 136	29 029 862	2	6
		46 915	1 755 148	31 074	64 040	1 031 538	10 551 962	17 531 504	27 970 381	X	X
31111	Animal food manufacturing	46 684	1 805 066	31 097	66 248	1 060 066	11 145 216	18 176 136	29 029 862	2	6
		46 915	1 755 148	31 074	64 040	1 031 538	10 551 962	17 531 504	27 970 381	X	X
311111	Dog and cat food manufacturing	14 161	627 607	11 058	23 835	436 625	6 720 696	4 713 093	11 453 164	3	5
		14 368	629 271	10 974	23 321	435 028	5 909 767	4 741 618	10 605 126	X	X
311119	Other animal food manufacturing	32 523	1 177 459	20 039	42 414	623 441	4 424 520	13 463 044	17 576 698	3	13
		32 547	1 125 877	20 100	40 719	596 510	4 642 195	12 789 886	17 365 255	X	X
3112	Grain and oilseed milling	53 577	2 444 511	40 306	90 334	1 657 738	19 843 031	33 209 910	52 977 421	1	1
		55 498	2 485 458	41 181	88 583	1 684 225	17 851 905	30 017 927	47 664 270	X	X
31121	Flour milling and malt manufacturing	15 211	601 930	11 571	26 101	392 924	2 824 092	6 735 831	9 540 665	1	1
		15 987	609 967	11 778	25 226	392 613	2 676 316	6 435 583	9 086 043	X	X
31121M	Flour milling and malt manufacturing	15 211	601 930	11 571	26 101	392 924	2 824 092	6 735 831	9 540 665	1	1
		15 987	609 967	11 778	25 226	392 613	2 676 316	6 435 583	9 086 043	X	X
31122	Starch and vegetable fats and oils manufacturing	25 763	1 142 874	18 427	39 650	725 158	8 911 308	24 090 653	32 952 719	2	1
		26 897	1 184 910	19 082	41 059	752 720	8 429 766	21 199 836	29 475 700	X	X
311221	Wet corn milling	8 818	484 109	5 844	13 027	299 039	3 352 226	4 836 606	8 231 322	3	2
		9 538	507 648	6 440	13 896	319 008	3 282 211	4 996 506	8 246 618	X	X
311225	Fats and oils refining and blending	7 415	288 354	5 682	11 948	192 920	1 698 433	6 084 566	7 738 498	1	1
		8 508	333 936	6 279	13 334	218 621	1 739 123	5 592 502	7 319 903	X	X
31122N	Soybean and other oilseed processing	9 530	370 411	6 902	14 674	233 198	3 860 649	13 169 482	16 982 899	6	2
		8 851	343 326	6 363	13 829	215 091	3 408 432	10 610 828	13 909 179	X	X
31123	Breakfast cereal manufacturing	12 603	699 706	10 308	24 583	539 657	8 107 631	2 383 426	10 484 037	1	1
		12 614	690 581	10 321	22 298	538 892	6 745 823	2 382 508	9 102 527	X	X
311230	Breakfast cereal manufacturing	12 603	699 706	10 308	24 583	539 657	8 107 631	2 383 426	10 484 037	1	1
		12 614	690 581	10 321	22 298	538 892	6 745 823	2 382 508	9 102 527	X	X
3113	Sugar and confectionery product manufacturing	76 212	2 787 022	59 033	122 008	1 942 622	13 784 638	12 687 079	26 473 692	2	2
		79 904	2 739 785	61 458	122 481	1 937 485	13 668 471	11 801 844	25 565 875	X	X
31131	Sugar manufacturing	14 565	643 931	11 381	28 184	474 425	2 518 651	4 991 690	7 505 663	7	11
		14 603	562 651	11 197	25 381	418 142	2 157 741	4 369 989	6 617 224	X	X
311313	Beet sugar manufacturing	6 474	278 791	5 505	13 482	222 738	1 190 405	1 616 360	2 798 896	15	24
		5 697	220 394	4 903	10 493	174 444	1 006 494	1 280 532	2 256 399	X	X
31131N	Sugar cane mills and refining	8 091	365 140	5 876	14 702	251 687	1 328 246	3 375 331	4 706 767	1	2
		8 906	342 257	6 294	14 888	243 698	1 151 247	3 089 457	4 360 825	X	X
31132	Chocolate and confectionery manufacturing from cacao beans	8 570	364 605	6 935	14 162	267 508	1 403 330	2 532 454	3 934 900	1	8
		8 649	378 456	6 961	14 773	290 149	1 903 829	2 187 510	4 078 568	X	X
311320	Chocolate and confectionery manufacturing from cacao beans	8 570	364 605	6 935	14 162	267 508	1 403 330	2 532 454	3 934 900	1	8
		8 649	378 456	6 961	14 773	290 149	1 903 829	2 187 510	4 078 568	X	X
31133	Confectionery manufacturing from purchased chocolate	31 630	999 695	24 091	46 826	704 844	6 394 647	3 140 123	9 583 112	2	1
		33 249	1 015 966	24 819	46 020	703 149	5 725 087	3 106 612	8 850 628	X	X
311330	Confectionery manufacturing from purchased chocolate	31 630	999 695	24 091	46 826	704 844	6 394 647	3 140 123	9 583 112	2	1
		33 249	1 015 966	24 819	46 020	703 149	5 725 087	3 106 612	8 850 628	X	X
31134	Nonchocolate confectionery manufacturing	21 446	778 791	16 626	32 836	495 845	3 468 011	2 022 813	5 450 017	1	1
		23 403	782 712	18 481	36 307	526 045	3 881 814	2 137 733	6 019 455	X	X
311340	Nonchocolate confectionery manufacturing	21 446	778 791	16 626	32 836	495 845	3 468 011	2 022 813	5 450 017	1	1
		23 403	782 712	18 481	36 307	526 045	3 881 814	2 137 733	6 019 455	X	X
3114	Fruit and vegetable preserving and specialty food manufacturing	169 631	5 363 467	141 867	284 952	3 945 858	28 817 534	24 317 533	53 059 306	1	2
		178 759	5 434 795	148 404	296 604	3 943 243	29 652 775	24 079 242	53 717 241	X	X
31141	Frozen food manufacturing	85 785	2 502 944	72 394	143 541	1 860 381	12 102 530	10 019 153	22 118 466	1	1
		90 323	2 515 408	76 035	151 374	1 872 448	11 976 970	9 872 832	21 819 632	X	X
31141M	Frozen food manufacturing	85 785	2 502 944	72 394	143 541	1 860 381	12 102 530	10 019 153	22 118 466	1	1
		90 323	2 515 408	76 035	151 374	1 872 448	11 976 970	9 872 832	21 819 632	X	X
31142	Fruit and vegetable canning, pickling, and drying	83 845	2 860 523	69 473	141 410	2 085 477	16 715 004	14 298 380	30 940 840	3	3
		88 436	2 919 387	72 369	145 230	2 070 795	17 675 805	14 206 410	31 897 609	X	X
31142M	Fruit and vegetable canning, pickling, and drying	83 845	2 860 523	69 473	141 410	2 085 477	16 715 004	14 298 380	30 940 840	3	3
		88 436	2 919 387	72 369	145 230	2 070 795	17 675 805	14 206 410	31 897 609	X	X

See footnotes at end of table.

**Table 2. Statistics for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments <sup>3</sup> (\$1,000)	Relative standard error of estimate <sup>4</sup> (percent) for column—					
		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F				
												A	B	C	D
311	Food manufacturing—Con.														
3115	Dairy product manufacturing	2003.. 129 377	4 962 849	88 180	187 105	3 121 410	22 582 322	44 974 695	67 478 022	1	1				
		2002.. 129 871	4 868 080	87 829	179 494	2 980 381	22 307 988	44 050 917	66 231 775	X	X				
31151	Dairy product (except frozen) manufacturing	2003.. 109 725	4 237 059	73 349	157 686	2 609 875	18 578 079	41 386 378	59 903 080	1	1				
		2002.. 109 361	4 138 258	72 381	149 836	2 476 621	17 894 355	40 247 016	58 021 641	X	X				
311513	Cheese manufacturing	2003.. 36 967	1 316 153	30 736	65 026	1 002 215	5 074 627	17 835 054	22 869 335	2	3				
		2002.. 37 204	1 274 545	30 591	60 879	955 870	5 002 480	17 035 644	22 006 031	X	X				
311514	Dry, condensed, and evaporated dairy product manufacturing	2003.. 14 026	604 960	9 718	21 457	390 240	4 356 819	4 945 750	9 315 909	4	2				
		2002.. 13 912	599 141	9 598	20 757	375 138	4 245 488	5 223 034	9 488 187	X	X				
31151N	Fluid milk and butter manufacturing	2003.. 58 732	2 315 947	32 896	71 202	1 217 420	9 146 633	18 605 573	27 717 836	1	2				
		2002.. 58 245	2 264 572	32 192	68 200	1 145 613	8 646 387	17 988 338	26 527 423	X	X				
31152	Ice cream and frozen dessert manufacturing	2003.. 19 652	725 790	14 831	29 420	511 535	4 004 243	3 588 318	7 574 942	2	1				
		2002.. 20 510	729 822	15 448	29 658	503 760	4 413 633	3 803 901	8 210 134	X	X				
311520	Ice cream and frozen dessert manufacturing	2003.. 19 652	725 790	14 831	29 420	511 535	4 004 243	3 588 318	7 574 942	2	1				
		2002.. 20 510	729 822	15 448	29 658	503 760	4 413 633	3 803 901	8 210 134	X	X				
3116	Animal slaughtering and processing	2003.. 493 605	12 671 622	424 750	891 108	9 740 301	44 256 115	90 609 343	134 585 451	1	1				
		2002.. 505 540	12 636 083	435 173	904 445	9 774 398	40 992 870	82 606 773	123 350 184	X	X				
31161	Animal slaughtering and processing	2003.. 493 605	12 671 622	424 750	891 108	9 740 301	44 256 115	90 609 343	134 585 451	1	1				
		2002.. 505 540	12 636 083	435 173	904 445	9 774 398	40 992 870	82 606 773	123 350 184	X	X				
311615	Poultry processing	2003.. 231 018	4 992 572	205 206	409 085	4 057 740	20 828 524	18 709 033	39 440 412	1	1				
		2002.. 242 542	5 117 495	216 376	428 000	4 215 843	19 362 723	18 770 576	37 944 280	X	X				
31161N	Animal (except poultry) slaughtering and processing	2003.. 262 587	7 679 051	219 545	482 024	5 682 561	23 427 590	71 900 310	95 145 039	1	1				
		2002.. 262 998	7 518 588	218 797	476 445	5 558 555	21 630 147	63 836 197	85 405 904	X	X				
3117	Seafood product preparation and packaging	2003.. 43 099	1 130 621	37 134	70 391	797 329	3 380 988	5 479 540	8 874 408	4	2				
		2002.. 41 297	1 058 260	34 166	62 905	702 114	3 265 732	5 533 753	8 810 640	X	X				
31171	Seafood product preparation and packaging	2003.. 43 099	1 130 621	37 134	70 391	797 329	3 380 988	5 479 540	8 874 408	4	2				
		2002.. 41 297	1 058 260	34 166	62 905	702 114	3 265 732	5 533 753	8 810 640	X	X				
31171M	Seafood product preparation and packaging	2003.. 43 099	1 130 621	37 134	70 391	797 329	3 380 988	5 479 540	8 874 408	4	2				
		2002.. 41 297	1 058 260	34 166	62 905	702 114	3 265 732	5 533 753	8 810 640	X	X				
3118	Bakeries and tortilla manufacturing	2003.. 290 534	8 797 248	177 451	325 823	4 883 817	32 108 064	16 759 594	48 654 236	2	1				
		2002.. 308 475	9 245 292	185 591	339 079	5 045 827	32 091 265	17 040 737	49 044 330	X	X				
31181	Bread and bakery product manufacturing	2003.. 226 155	6 551 710	125 321	225 981	3 351 505	18 926 827	9 832 421	28 724 562	2	2				
		2002.. 240 572	6 946 541	132 300	234 245	3 458 988	20 735 189	10 214 422	30 925 814	X	X				
31181M	Bread and bakery product manufacturing	2003.. 226 155	6 551 710	125 321	225 981	3 351 505	18 926 827	9 832 421	28 724 562	2	2				
		2002.. 240 572	6 946 541	132 300	234 245	3 458 988	20 735 189	10 214 422	30 925 814	X	X				
31182	Cookie, cracker, and pasta manufacturing	2003.. 51 655	1 942 100	41 450	79 894	1 305 744	12 101 178	6 327 483	18 279 145	2	1				
		2002.. 55 309	1 989 142	42 767	86 099	1 356 392	10 385 107	6 264 101	16 586 249	X	X				
31182M	Cookie, cracker, and pasta manufacturing	2003.. 51 655	1 942 100	41 450	79 894	1 305 744	12 101 178	6 327 483	18 279 145	2	1				
		2002.. 55 309	1 989 142	42 767	86 099	1 356 392	10 385 107	6 264 101	16 586 249	X	X				
31183	Tortilla manufacturing	2003.. 12 723	303 438	10 681	19 948	226 569	1 080 059	599 690	1 650 529	5	3				
		2002.. 12 594	309 609	10 524	18 735	230 447	970 969	562 214	1 532 267	X	X				
311830	Tortilla manufacturing	2003.. 12 723	303 438	10 681	19 948	226 569	1 080 059	599 690	1 650 529	5	3				
		2002.. 12 594	309 609	10 524	18 735	230 447	970 969	562 214	1 532 267	X	X				
3119	Other food manufacturing	2003.. 164 654	5 722 740	121 399	241 774	3 530 708	35 779 425	25 998 921	61 682 651	1	1				
		2002.. 161 850	5 346 957	116 649	224 927	3 215 441	34 176 922	23 495 513	57 664 886	X	X				
31191	Snack food manufacturing	2003.. 44 344	1 375 921	32 813	63 291	878 934	10 697 406	6 888 731	17 648 207	1	1				
		2002.. 45 038	1 361 248	33 230	62 147	862 599	10 447 605	6 496 466	16 999 766	X	X				
31191M	Snack food manufacturing	2003.. 44 344	1 375 921	32 813	63 291	878 934	10 697 406	6 888 731	17 648 207	1	1				
		2002.. 45 038	1 361 248	33 230	62 147	862 599	10 447 605	6 496 466	16 999 766	X	X				
31192	Coffee and tea manufacturing	2003.. 11 654	518 499	7 374	15 215	281 413	2 631 222	3 291 995	5 846 765	1	2				
		2002.. 11 431	482 463	6 960	13 500	250 277	2 879 879	2 647 977	5 542 276	X	X				
311920	Coffee and tea manufacturing	2003.. 11 654	518 499	7 374	15 215	281 413	2 631 222	3 291 995	5 846 765	1	2				
		2002.. 11 431	482 463	6 960	13 500	250 277	2 879 879	2 647 977	5 542 276	X	X				
31193	Flavoring syrup and concentrate manufacturing	2003.. 6 164	256 416	4 517	8 528	160 273	7 182 109	1 395 655	8 560 299	5	1				
		2002.. 5 737	237 700	3 749	7 398	135 089	7 060 888	1 311 842	8 373 072	X	X				
311930	Flavoring syrup and concentrate manufacturing	2003.. 6 164	256 416	4 517	8 528	160 273	7 182 109	1 395 655	8 560 299	5	1				
		2002.. 5 737	237 700	3 749	7 398	135 089	7 060 888	1 311 842	8 373 072	X	X				
31194	Seasoning and dressing manufacturing	2003.. 29 625	1 245 152	20 263	41 315	684 463	6 334 802	5 595 288	11 886 802	1	1				
		2002.. 29 408	1 194 858	19 806	38 531	644 557	5 816 542	5 539 705	11 305 762	X	X				
31194M	Seasoning and dressing manufacturing	2003.. 29 625	1 245 152	20 263	41 315	684 463	6 334 802	5 595 288	11 886 802	1	1				
		2002.. 29 408	1 194 858	19 806	38 531	644 557	5 816 542	5 539 705	11 305 762	X	X				
31199	All other food manufacturing	2003.. 72 867	2 326 752	56 432	113 426	1 525 626	8 933 887	8 827 252	17 740 578	2	1				
		2002.. 70 236	2 070 688	52 904	103 351	1 322 919	7 972 008	7 499 523	15 444 010	X	X				
31199M	All other food manufacturing	2003.. 72 867	2 326 752	56 432	113 426	1 525 626	8 933 887	8 827 252	17 740 578	2	1				
		2002.. 70 236	2 070 688	52 904	103 351	1 322 919	7 972 008	7 499 523	15 444 010	X	X				

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments <sup>3</sup> (\$1,000)	Relative standard error of estimate <sup>4</sup> (percent) for column—		
		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F	
												C
312	Beverage and tobacco product manufacturing .....	2003..	151 253	6 865 505	85 822	176 704	3 357 352	69 125 358	38 010 293	106 872 812	2	1
		2002..	159 713	6 911 448	87 001	174 056	3 350 277	66 731 337	39 148 919	105 691 110	X	X
3121	Beverage manufacturing .....	2003..	126 597	5 461 411	67 835	140 900	2 524 146	35 448 848	32 601 711	67 795 902	2	1
		2002..	134 652	5 510 122	69 864	140 044	2 520 661	32 940 960	33 326 491	66 066 822	X	X
31211	Soft drink and ice manufacturing .....	2003..	70 909	2 719 118	33 279	71 700	1 129 663	15 325 934	20 171 026	35 477 804	4	3
		2002..	76 173	2 756 346	34 758	70 868	1 100 531	14 072 393	20 698 106	34 738 926	X	X
31211M	Soft drink and ice manufacturing .....	2003..	70 909	2 719 118	33 279	71 700	1 129 663	15 325 934	20 171 026	35 477 804	4	3
		2002..	76 173	2 756 346	34 758	70 868	1 100 531	14 072 393	20 698 106	34 738 926	X	X
31212	Breweries .....	2003..	27 273	1 453 768	19 967	39 996	894 224	12 444 638	6 819 122	19 262 241	1	1
		2002..	28 347	1 463 189	19 582	40 469	897 981	10 972 084	6 886 337	17 864 107	X	X
312120	Breweries .....	2003..	27 273	1 453 768	19 967	39 996	894 224	12 444 638	6 819 122	19 262 241	1	1
		2002..	28 347	1 463 189	19 582	40 469	897 981	10 972 084	6 886 337	17 864 107	X	X
31213	Wineries .....	2003..	23 284	1 045 409	11 171	21 948	369 350	5 029 582	4 238 811	9 130 622	2	2
		2002..	24 529	1 037 172	11 823	21 141	385 841	5 193 701	4 338 220	9 406 322	X	X
312130	Wineries .....	2003..	23 284	1 045 409	11 171	21 948	369 350	5 029 582	4 238 811	9 130 622	2	2
		2002..	24 529	1 037 172	11 823	21 141	385 841	5 193 701	4 338 220	9 406 322	X	X
31214	Distilleries .....	2003..	5 131	243 115	3 418	7 256	130 909	2 648 694	1 372 753	3 925 236	4	1
		2002..	5 603	253 415	3 701	7 566	136 308	2 702 782	1 403 828	4 057 467	X	X
312140	Distilleries .....	2003..	5 131	243 115	3 418	7 256	130 909	2 648 694	1 372 753	3 925 236	4	1
		2002..	5 603	253 415	3 701	7 566	136 308	2 702 782	1 403 828	4 057 467	X	X
3122	Tobacco manufacturing .....	2003..	24 655	1 404 094	17 987	35 804	833 206	33 676 510	5 408 582	39 076 909	1	1
		2002..	25 061	1 401 326	17 137	34 012	829 616	33 790 377	5 822 428	39 624 288	X	X
31221	Tobacco stemming and redrying .....	2003..	2 568	75 467	1 946	3 897	42 592	187 085	800 783	979 543	1	1
		2002..	2 611	72 252	2 008	3 789	38 591	256 821	825 961	1 093 945	X	X
312210	Tobacco stemming and redrying .....	2003..	2 568	75 467	1 946	3 897	42 592	187 085	800 783	979 543	1	1
		2002..	2 611	72 252	2 008	3 789	38 591	256 821	825 961	1 093 945	X	X
31222	Tobacco product manufacturing .....	2003..	22 087	1 328 627	16 041	31 907	790 614	33 489 425	4 607 799	38 097 366	1	1
		2002..	22 450	1 329 074	15 129	30 223	791 025	33 533 556	4 996 467	38 530 343	X	X
31222M	Tobacco product manufacturing .....	2003..	22 087	1 328 627	16 041	31 907	790 614	33 489 425	4 607 799	38 097 366	1	1
		2002..	22 450	1 329 074	15 129	30 223	791 025	33 533 556	4 996 467	38 530 343	X	X
313	Textile mills .....	2003..	247 474	7 166 671	210 770	421 308	5 401 918	18 531 253	23 981 302	42 556 725	1	1
		2002..	268 595	7 651 630	227 088	455 533	5 639 241	18 911 582	26 343 955	45 548 983	X	X
3131	Fiber, yarn, and thread mills .....	2003..	58 833	1 509 937	53 253	105 303	1 256 455	3 684 452	6 611 463	10 350 678	1	2
		2002..	62 236	1 599 536	55 816	112 421	1 302 070	3 536 498	7 022 856	10 630 085	X	X
31311	Fiber, yarn, and thread mills .....	2003..	58 833	1 509 937	53 253	105 303	1 256 455	3 684 452	6 611 463	10 350 678	1	2
		2002..	62 236	1 599 536	55 816	112 421	1 302 070	3 536 498	7 022 856	10 630 085	X	X
31311M	Fiber, yarn, and thread mills .....	2003..	58 833	1 509 937	53 253	105 303	1 256 455	3 684 452	6 611 463	10 350 678	1	2
		2002..	62 236	1 599 536	55 816	112 421	1 302 070	3 536 498	7 022 856	10 630 085	X	X
3132	Fabric mills .....	2003..	129 720	3 883 950	110 325	218 799	2 924 282	10 197 761	10 782 962	20 991 916	1	1
		2002..	142 228	4 161 340	119 272	237 931	3 059 718	10 128 332	12 256 674	22 541 513	X	X
31321	Broadwoven fabric mills .....	2003..	72 356	1 998 577	63 520	123 547	1 580 266	4 696 825	5 658 668	10 393 337	1	1
		2002..	81 019	2 249 701	70 385	139 979	1 761 464	5 075 979	6 212 990	10 387 215	X	X
313210	Broadwoven fabric mills .....	2003..	72 356	1 998 577	63 520	123 547	1 580 266	4 696 825	5 658 668	10 393 337	1	1
		2002..	81 019	2 249 701	70 385	139 979	1 761 464	5 075 979	6 212 990	10 387 215	X	X
31322	Narrow fabric mills and schiffli machine embroidery .....	2003..	12 874	364 074	10 473	21 184	244 567	773 040	528 242	1 305 163	1	2
		2002..	14 358	379 224	11 547	22 819	254 258	791 440	606 274	1 406 072	X	X
31322M	Narrow fabric mills and schiffli machine embroidery .....	2003..	12 874	364 074	10 473	21 184	244 567	773 040	528 242	1 305 163	1	2
		2002..	14 358	379 224	11 547	22 819	254 258	791 440	606 274	1 406 072	X	X
31323	Nonwoven fabric mills .....	2003..	20 549	854 602	16 141	33 378	615 723	3 148 476	2 607 690	5 707 206	2	1
		2002..	21 648	853 552	16 307	33 046	559 875	2 651 649	3 260 781	5 905 700	X	X
313230	Nonwoven fabric mills .....	2003..	20 549	854 602	16 141	33 378	615 723	3 148 476	2 607 690	5 707 206	2	1
		2002..	21 648	853 552	16 307	33 046	559 875	2 651 649	3 260 781	5 905 700	X	X
31324	Knit fabric mills .....	2003..	23 941	666 698	20 190	40 690	483 725	1 579 420	1 988 361	3 586 210	2	5
		2002..	25 203	678 863	21 033	42 087	484 121	1 609 264	2 176 629	3 842 526	X	X
31324M	Knit fabric mills .....	2003..	23 941	666 698	20 190	40 690	483 725	1 579 420	1 988 361	3 586 210	2	5
		2002..	25 203	678 863	21 033	42 087	484 121	1 609 264	2 176 629	3 842 526	X	X
3133	Textile and fabric finishing and fabric coating mills .....	2003..	58 921	1 772 784	47 192	97 206	1 221 181	4 649 040	6 586 877	11 214 130	1	3
		2002..	64 131	1 890 754	52 000	105 181	1 277 453	5 246 752	7 064 425	12 377 385	X	X
31331	Textile and fabric finishing mills .....	2003..	50 023	1 426 964	40 889	83 110	1 021 320	3 840 101	5 371 455	9 197 924	2	3
		2002..	54 998	1 543 232	45 331	91 548	1 080 601	4 506 876	5 871 396	10 434 621	X	X
31331M	Textile and fabric finishing mills .....	2003..	50 023	1 426 964	40 889	83 110	1 021 320	3 840 101	5 371 455	9 197 924	2	3
		2002..	54 998	1 543 232	45 331	91 548	1 080 601	4 506 876	5 871 396	10 434 621	X	X
31332	Fabric coating mills .....	2003..	8 898	345 820	6 303	14 096	199 862	808 939	1 215 422	2 016 206	2	3
		2002..	9 133	347 522	6 669	13 633	196 852	739 876	1 193 029	1 942 764	X	X
313320	Fabric coating mills .....	2003..	8 898	345 820	6 303	14 096	199 862	808 939	1 215 422	2 016 206	2	3
		2002..	9 133	347 522	6 669	13 633	196 852	739 876	1 193 029	1 942 764	X	X

See footnotes at end of table.

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F	
												A
314	Textile product mills .....	2003..	169 872	4 596 409	135 389	274 742	3 083 148	13 479 784	17 532 737	30 827 381	1	1
		2002..	182 155	4 723 723	146 511	286 336	3 176 541	13 059 670	18 070 525	31 805 579	X	X
3141	Textile furnishings mills .....	2003..	94 186	2 507 001	77 198	160 229	1 772 953	8 759 993	12 875 696	21 480 762	1	1
		2002..	101 035	2 595 905	83 599	166 771	1 835 150	8 232 406	13 141 179	22 020 907	X	X
31411	Carpet and rug mills .....	2003..	41 610	1 279 697	34 429	74 452	936 784	5 157 086	8 346 945	13 408 380	1	1
		2002..	43 806	1 291 972	36 569	76 883	953 932	4 477 215	8 497 659	13 604 109	X	X
314110	Carpet and rug mills .....	2003..	41 610	1 279 697	34 429	74 452	936 784	5 157 086	8 346 945	13 408 380	1	1
		2002..	43 806	1 291 972	36 569	76 883	953 932	4 477 215	8 497 659	13 604 109	X	X
31412	Curtain and linen mills .....	2003..	52 576	1 227 304	42 768	85 776	836 169	3 602 907	4 528 751	8 072 381	1	2
		2002..	57 229	1 303 933	47 030	89 888	881 218	3 755 191	4 643 520	8 416 798	X	X
31412M	Curtain and linen mills .....	2003..	52 576	1 227 304	42 768	85 776	836 169	3 602 907	4 528 751	8 072 381	1	2
		2002..	57 229	1 303 933	47 030	89 888	881 218	3 755 191	4 643 520	8 416 798	X	X
3149	Other textile product mills .....	2003..	75 686	2 089 407	58 191	114 513	1 310 195	4 719 791	4 657 041	9 346 619	2	4
		2002..	81 120	2 127 818	62 912	119 565	1 341 391	4 827 264	4 929 346	9 784 672	X	X
31491	Textile bag and canvas mills .....	2003..	24 782	663 752	18 852	35 390	384 623	1 319 763	1 206 185	2 493 705	2	3
		2002..	24 885	664 098	18 983	35 023	395 216	1 365 870	1 141 651	2 504 353	X	X
31491M	Textile bag and canvas mills .....	2003..	24 782	663 752	18 852	35 390	384 623	1 319 763	1 206 185	2 493 705	2	3
		2002..	24 885	664 098	18 983	35 023	395 216	1 365 870	1 141 651	2 504 353	X	X
31499	All other textile product mills .....	2003..	50 905	1 425 656	39 339	79 124	925 572	3 400 028	3 450 856	6 852 914	3	5
		2002..	56 235	1 463 720	43 929	84 542	946 175	3 461 394	3 787 695	7 280 319	X	X
314991	Rope, cordage, and twine mills....	2003..	4 461	144 630	3 234	6 645	77 685	282 323	397 880	681 019	5	4
		2002..	5 149	155 933	3 791	7 421	82 831	305 787	415 140	717 776	X	X
314992	Tire cord and tire fabric mills .....	2003..	4 419	161 041	3 712	7 827	125 473	362 552	793 423	1 154 256	1	1
		2002..	4 595	153 564	3 808	7 615	116 280	348 471	805 256	1 166 858	X	X
314999	All other miscellaneous textile product mills .....	2003..	42 024	1 119 985	32 392	64 651	722 414	2 755 153	2 259 553	5 017 639	3	6
		2002..	46 491	1 154 223	36 330	69 506	747 064	2 807 136	2 567 299	5 395 685	X	X
315	Apparel manufacturing .....	2003..	296 076	6 704 204	233 873	439 646	4 222 965	20 396 176	20 370 632	40 624 280	1	1
		2002..	343 484	7 446 715	273 647	494 143	4 717 713	21 393 380	22 894 355	44 515 059	X	X
3151	Apparel knitting mills.....	2003..	42 794	1 045 668	35 530	73 400	759 450	2 493 513	2 574 402	5 069 701	1	4
		2002..	51 011	1 179 708	42 610	82 763	856 762	2 871 516	3 139 592	6 075 286	X	X
31511	Hosiery and sock mills .....	2003..	28 929	697 974	24 329	50 298	516 193	1 725 640	1 603 787	3 336 197	2	6
		2002..	33 057	758 698	28 086	54 885	567 438	1 740 476	1 717 486	3 495 364	X	X
31511M	Hosiery and sock mills .....	2003..	28 929	697 974	24 329	50 298	516 193	1 725 640	1 603 787	3 336 197	2	6
		2002..	33 057	758 698	28 086	54 885	567 438	1 740 476	1 717 486	3 495 364	X	X
31519	Other apparel knitting mills .....	2003..	13 865	347 694	11 202	23 102	243 257	767 873	970 616	1 733 504	2	2
		2002..	17 954	421 010	14 524	27 878	289 324	1 131 040	1 422 106	2 579 922	X	X
31519M	Other apparel knitting mills .....	2003..	13 865	347 694	11 202	23 102	243 257	767 873	970 616	1 733 504	2	2
		2002..	17 954	421 010	14 524	27 878	289 324	1 131 040	1 422 106	2 579 922	X	X
3152	Cut and sew apparel manufacturing ...	2003..	227 585	5 028 038	179 211	330 849	3 095 641	16 554 847	16 352 120	32 752 863	1	1
		2002..	264 576	5 615 533	209 663	371 995	3 465 798	17 135 611	18 217 242	35 504 899	X	X
31521	Cut and sew apparel contractors ...	2003..	86 793	1 357 431	77 590	139 158	1 079 881	2 243 417	606 194	2 862 958	2	3
		2002..	100 599	1 555 217	90 103	153 664	1 239 667	2 754 375	729 280	3 494 474	X	X
31521M	Cut and sew apparel contractors .....	2003..	86 793	1 357 431	77 590	139 158	1 079 881	2 243 417	606 194	2 862 958	2	3
		2002..	100 599	1 555 217	90 103	153 664	1 239 667	2 754 375	729 280	3 494 474	X	X
31522	Men's and boys' cut and sew apparel manufacturing .....	2003..	54 965	1 208 763	44 157	82 241	825 885	6 009 491	5 134 634	11 017 677	4	2
		2002..	69 205	1 468 563	55 860	99 151	986 840	5 814 672	5 784 104	11 613 406	X	X
31522M	Men's and boys' cut and sew apparel manufacturing .....	2003..	54 965	1 208 763	44 157	82 241	825 885	6 009 491	5 134 634	11 017 677	4	2
		2002..	69 205	1 468 563	55 860	99 151	986 840	5 814 672	5 784 104	11 613 406	X	X
31523	Women's and girls' cut and sew apparel manufacturing .....	2003..	67 098	2 034 712	43 751	83 708	939 940	7 326 866	9 950 458	17 242 898	1	1
		2002..	75 362	2 175 118	49 218	91 736	994 294	7 638 184	10 980 793	18 742 156	X	X
31523M	Women's and girls' cut and sew apparel manufacturing .....	2003..	67 098	2 034 712	43 751	83 708	939 940	7 326 866	9 950 458	17 242 898	1	1
		2002..	75 362	2 175 118	49 218	91 736	994 294	7 638 184	10 980 793	18 742 156	X	X
31529	Other cut and sew apparel manufacturing .....	2003..	18 729	427 132	13 712	25 743	249 936	975 073	660 834	1 629 330	3	3
		2002..	19 410	416 635	14 482	27 444	244 997	928 380	723 065	1 654 863	X	X
31529M	Other cut and sew apparel manufacturing .....	2003..	18 729	427 132	13 712	25 743	249 936	975 073	660 834	1 629 330	3	3
		2002..	19 410	416 635	14 482	27 444	244 997	928 380	723 065	1 654 863	X	X
3159	Apparel accessories and other apparel manufacturing .....	2003..	25 698	630 498	19 132	35 397	367 874	1 347 816	1 444 110	2 801 716	2	3
		2002..	27 897	651 474	21 374	39 385	395 153	1 386 253	1 537 521	2 934 874	X	X
31599	Apparel accessories and other apparel manufacturing .....	2003..	25 698	630 498	19 132	35 397	367 874	1 347 816	1 444 110	2 801 716	2	3
		2002..	27 897	651 474	21 374	39 385	395 153	1 386 253	1 537 521	2 934 874	X	X
31599M	Apparel accessories and other apparel manufacturing .....	2003..	25 698	630 498	19 132	35 397	367 874	1 347 816	1 444 110	2 801 716	2	3
		2002..	27 897	651 474	21 374	39 385	395 153	1 386 253	1 537 521	2 934 874	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F	
												A
316	Leather and allied product manufacturing .....	2003..	40 588	1 111 911	32 134	61 333	683 106	2 876 885	3 109 676	6 003 320	2	2
		2002..	44 728	1 159 988	35 439	66 444	724 029	2 903 003	3 323 596	6 299 106	X	X
3161	Leather and hide tanning and finishing .....	2003..	7 871	257 977	6 196	12 131	179 514	769 962	1 369 769	2 143 709	1	3
		2002..	8 909	280 689	7 150	13 678	198 740	771 728	1 482 345	2 279 638	X	X
31611	Leather and hide tanning and finishing .....	2003..	7 871	257 977	6 196	12 131	179 514	769 962	1 369 769	2 143 709	1	3
		2002..	8 909	280 689	7 150	13 678	198 740	771 728	1 482 345	2 279 638	X	X
316110	Leather and hide tanning and finishing .....	2003..	7 871	257 977	6 196	12 131	179 514	769 962	1 369 769	2 143 709	1	3
		2002..	8 909	280 689	7 150	13 678	198 740	771 728	1 482 345	2 279 638	X	X
3162	Footwear manufacturing .....	2003..	17 702	470 537	14 406	28 013	298 291	1 070 549	1 063 845	2 149 460	3	4
		2002..	19 328	480 312	15 642	29 546	301 805	1 077 716	1 155 917	2 279 000	X	X
31621	Footwear manufacturing .....	2003..	17 702	470 537	14 406	28 013	298 291	1 070 549	1 063 845	2 149 460	3	4
		2002..	19 328	480 312	15 642	29 546	301 805	1 077 716	1 155 917	2 279 000	X	X
31621M	Footwear manufacturing .....	2003..	17 702	470 537	14 406	28 013	298 291	1 070 549	1 063 845	2 149 460	3	4
		2002..	19 328	480 312	15 642	29 546	301 805	1 077 716	1 155 917	2 279 000	X	X
3169	Other leather and allied product manufacturing .....	2003..	15 016	383 397	11 531	21 188	205 301	1 036 374	676 061	1 710 151	2	3
		2002..	16 491	398 987	12 647	23 220	223 484	1 053 559	685 334	1 740 468	X	X
31699	Other leather and allied product manufacturing .....	2003..	15 016	383 397	11 531	21 188	205 301	1 036 374	676 061	1 710 151	2	3
		2002..	16 491	398 987	12 647	23 220	223 484	1 053 559	685 334	1 740 468	X	X
31699M	Other leather and allied product manufacturing .....	2003..	15 016	383 397	11 531	21 188	205 301	1 036 374	676 061	1 710 151	2	3
		2002..	16 491	398 987	12 647	23 220	223 484	1 053 559	685 334	1 740 468	X	X
321	Wood product manufacturing .....	2003..	511 430	15 631 193	419 637	874 216	11 305 655	36 570 551	54 706 144	91 240 225	1	1
		2002..	540 102	16 038 205	441 832	893 801	11 552 502	35 106 378	53 964 889	88 985 198	X	X
3211	Sawmills and wood preservation .....	2003..	103 705	3 452 852	88 912	190 698	2 721 446	8 403 618	18 310 930	26 679 697	2	2
		2002..	108 014	3 495 075	92 161	192 251	2 747 556	7 767 098	18 060 783	25 919 568	X	X
32111	Sawmills and wood preservation .....	2003..	103 705	3 452 852	88 912	190 698	2 721 446	8 403 618	18 310 930	26 679 697	2	2
		2002..	108 014	3 495 075	92 161	192 251	2 747 556	7 767 098	18 060 783	25 919 568	X	X
32111M	Sawmills and wood preservation .....	2003..	103 705	3 452 852	88 912	190 698	2 721 446	8 403 618	18 310 930	26 679 697	2	2
		2002..	108 014	3 495 075	92 161	192 251	2 747 556	7 767 098	18 060 783	25 919 568	X	X
3212	Veneer, plywood, and engineered wood product manufacturing .....	2003..	110 269	3 639 275	89 453	193 271	2 612 089	8 871 708	12 639 174	21 570 526	1	1
		2002..	114 184	3 678 367	93 314	193 957	2 665 881	8 062 653	12 145 875	20 163 577	X	X
32121	Veneer, plywood, and engineered wood product manufacturing .....	2003..	110 269	3 639 275	89 453	193 271	2 612 089	8 871 708	12 639 174	21 570 526	1	1
		2002..	114 184	3 678 367	93 314	193 957	2 665 881	8 062 653	12 145 875	20 163 577	X	X
321219	Reconstituted wood product manufacturing .....	2003..	20 797	793 599	16 968	36 306	576 957	2 948 549	3 628 402	6 607 516	1	2
		2002..	22 539	830 494	18 145	37 537	604 150	2 506 342	3 336 047	5 828 833	X	X
32121N	Veneer and plywood manufacturing .....	2003..	40 849	1 320 735	36 165	79 624	1 079 557	2 762 489	5 114 591	7 915 328	2	2
		2002..	44 266	1 424 744	39 368	83 773	1 170 372	2 546 827	5 281 041	7 801 992	X	X
32121P	Engineered wood product manufacturing .....	2003..	48 622	1 524 942	36 319	77 341	955 576	3 160 670	3 896 181	7 047 681	2	2
		2002..	47 379	1 423 129	35 801	72 647	891 359	3 009 484	3 528 787	6 532 752	X	X
3219	Other wood product manufacturing .....	2003..	297 457	8 539 066	241 273	490 246	5 972 120	19 295 224	23 756 040	42 990 002	1	2
		2002..	317 904	8 864 763	256 357	507 593	6 139 065	19 276 627	23 758 231	42 902 053	X	X
32191	Millwork .....	2003..	147 690	4 371 407	120 848	239 252	3 095 921	10 117 349	13 559 351	23 677 439	2	2
		2002..	150 902	4 408 315	121 725	235 186	3 065 136	9 533 965	13 046 179	22 492 789	X	X
32191M	Millwork .....	2003..	147 690	4 371 407	120 848	239 252	3 095 921	10 117 349	13 559 351	23 677 439	2	2
		2002..	150 902	4 408 315	121 725	235 186	3 065 136	9 533 965	13 046 179	22 492 789	X	X
32192	Wood container and pallet manufacturing .....	2003..	46 528	1 116 499	38 840	78 019	820 798	2 352 227	2 608 449	4 933 238	2	3
		2002..	51 028	1 154 765	42 814	80 631	839 470	2 411 164	2 675 050	5 062 960	X	X
321920	Wood container and pallet manufacturing .....	2003..	46 528	1 116 499	38 840	78 019	820 798	2 352 227	2 608 449	4 933 238	2	3
		2002..	51 028	1 154 765	42 814	80 631	839 470	2 411 164	2 675 050	5 062 960	X	X
32199	All other wood product manufacturing .....	2003..	103 239	3 051 159	81 584	172 975	2 055 400	6 825 649	7 588 240	14 379 325	2	3
		2002..	115 974	3 301 683	91 818	191 776	2 234 459	7 331 498	8 037 002	15 346 304	X	X
321991	Manufactured home (mobile home) manufacturing .....	2003..	42 764	1 261 023	34 431	65 546	860 247	2 557 624	3 369 967	5 914 658	1	1
		2002..	50 270	1 415 288	40 543	75 798	963 821	2 860 955	3 864 956	6 726 767	X	X
321992	Prefabricated wood building manufacturing .....	2003..	23 075	760 800	16 225	31 830	432 549	1 576 489	2 106 540	3 655 635	5	12
		2002..	25 217	784 935	18 474	36 157	463 927	1 791 232	1 945 915	3 731 896	X	X
321999	All other miscellaneous wood product manufacturing .....	2003..	37 400	1 029 336	30 929	75 599	762 605	2 691 535	2 111 733	4 809 032	3	2
		2002..	40 487	1 101 460	32 801	79 821	806 711	2 679 311	2 226 131	4 887 641	X	X
322	Paper manufacturing .....	2003..	464 326	20 772 602	360 565	758 958	14 316 185	72 084 153	76 985 165	149 270 288	1	1
		2002..	491 832	21 492 423	377 107	796 004	14 657 559	75 765 684	77 966 824	153 655 337	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F	
												A
322	Paper manufacturing—Con.											
3221	Pulp, paper, and paperboard mills . . . . .	2003.. 144 810	8 261 064	115 346	247 572	6 165 305	35 000 331	31 694 399	66 650 581	1	1	
		2002.. 159 044	8 862 381	124 104	274 488	6 516 501	38 116 571	32 008 740	69 940 906	X	X	
32211	Pulp mills . . . . .	2003.. 8 059	490 922	6 306	13 265	356 866	1 723 276	2 143 201	3 890 533	1	1	
		2002.. 8 043	487 324	6 136	13 143	346 517	1 736 798	1 924 281	3 650 916	X	X	
322110	Pulp mills . . . . .	2003.. 8 059	490 922	6 306	13 265	356 866	1 723 276	2 143 201	3 890 533	1	1	
		2002.. 8 043	487 324	6 136	13 143	346 517	1 736 798	1 924 281	3 650 916	X	X	
32212	Paper mills . . . . .	2003.. 92 036	5 230 282	73 570	154 909	3 946 031	23 048 483	19 232 832	42 168 848	1	1	
		2002.. 102 781	5 719 436	80 597	169 146	4 243 241	25 571 468	19 870 333	45 286 754	X	X	
32212M	Paper and newsprint mills . . . . .	2003.. 92 036	5 230 282	73 570	154 909	3 946 031	23 048 483	19 232 832	42 168 848	1	1	
		2002.. 102 781	5 719 436	80 597	169 146	4 243 241	25 571 468	19 870 333	45 286 754	X	X	
32213	Paperboard mills . . . . .	2003.. 44 715	2 539 860	35 470	79 398	1 862 408	10 228 572	10 318 366	20 591 200	1	1	
		2002.. 48 220	2 655 621	37 371	92 199	1 926 743	10 808 305	10 214 126	21 003 236	X	X	
322130	Paperboard mills . . . . .	2003.. 44 715	2 539 860	35 470	79 398	1 862 408	10 228 572	10 318 366	20 591 200	1	1	
		2002.. 48 220	2 655 621	37 371	92 199	1 926 743	10 808 305	10 214 126	21 003 236	X	X	
3222	Converted paper product manufacturing . . . . .	2003.. 319 516	12 511 537	245 219	511 386	8 150 880	37 083 822	45 290 765	82 619 706	1	1	
		2002.. 332 788	12 630 042	253 003	521 516	8 141 058	37 649 113	45 958 084	83 714 431	X	X	
32221	Paperboard container manufacturing . . . . .	2003.. 176 450	6 948 409	135 048	285 467	4 459 738	17 406 879	25 522 818	43 107 518	1	1	
		2002.. 184 457	7 064 347	140 189	291 576	4 492 254	17 412 961	26 042 550	43 433 740	X	X	
32221M	Paperboard container manufacturing . . . . .	2003.. 176 450	6 948 409	135 048	285 467	4 459 738	17 406 879	25 522 818	43 107 518	1	1	
		2002.. 184 457	7 064 347	140 189	291 576	4 492 254	17 412 961	26 042 550	43 433 740	X	X	
32222	Paper bag and coated and treated paper manufacturing . . . . .	2003.. 64 161	2 626 880	47 766	98 426	1 665 238	8 608 289	9 597 312	18 196 876	1	1	
		2002.. 66 296	2 640 583	48 573	100 144	1 645 993	8 333 742	9 842 301	18 242 228	X	X	
32222N	Coated and laminated paper and packaging manufacturing . . . . .	2003.. 41 295	1 791 388	29 518	60 024	1 096 036	6 477 058	6 477 377	12 965 340	1	1	
		2002.. 42 988	1 800 737	29 980	61 110	1 070 107	6 253 719	6 788 897	13 070 279	X	X	
32222P	Coated, uncoated, and multiwall bag and packaging manufacturing . . . . .	2003.. 22 866	835 493	18 248	38 402	569 202	2 131 231	3 119 934	5 231 536	1	1	
		2002.. 23 308	839 846	18 593	39 034	575 886	2 080 023	3 053 404	5 171 949	X	X	
32223	Stationery product manufacturing . . . . .	2003.. 39 036	1 344 730	30 904	63 500	911 800	3 398 155	4 307 448	7 706 161	7	3	
		2002.. 38 937	1 312 919	30 489	61 736	901 652	3 555 401	4 410 246	8 031 487	X	X	
32223M	Stationery product manufacturing . . . . .	2003.. 39 036	1 344 730	30 904	63 500	911 800	3 398 155	4 307 448	7 706 161	7	3	
		2002.. 38 937	1 312 919	30 489	61 736	901 652	3 555 401	4 410 246	8 031 487	X	X	
32229	Other converted paper product manufacturing . . . . .	2003.. 39 868	1 591 517	31 501	63 994	1 114 104	7 670 499	5 863 188	13 609 151	1	1	
		2002.. 43 098	1 612 193	33 752	68 060	1 101 159	8 347 009	5 662 987	14 006 976	X	X	
322291	Sanitary paper product manufacturing . . . . .	2003.. 19 260	879 849	15 373	32 695	658 993	5 542 673	3 766 604	9 366 320	1	1	
		2002.. 20 053	843 966	15 851	32 421	617 681	6 025 358	3 525 488	9 559 179	X	X	
322299	All other converted paper product manufacturing . . . . .	2003.. 20 608	711 669	16 127	31 299	455 111	2 127 826	2 096 584	4 242 831	3	2	
		2002.. 23 045	768 227	17 901	35 639	483 478	2 321 651	2 137 499	4 474 797	X	X	
323	Printing and related support activities . . . . .	2003.. 675 362	25 127 150	488 139	938 543	15 518 980	56 589 711	35 585 815	92 191 998	1	1	
		2002.. 717 413	25 687 268	514 801	966 632	15 921 619	58 992 245	36 359 705	95 387 664	X	X	
3231	Printing and related support activities . . . . .	2003.. 675 362	25 127 150	488 139	938 543	15 518 980	56 589 711	35 585 815	92 191 998	1	1	
		2002.. 717 413	25 687 268	514 801	966 632	15 921 619	58 992 245	36 359 705	95 387 664	X	X	
32311	Printing . . . . .	2003.. 622 139	23 107 260	448 119	862 336	14 238 608	52 678 139	34 449 163	87 169 540	1	1	
		2002.. 661 269	23 559 040	472 603	886 129	14 566 002	54 807 031	35 151 239	90 004 165	X	X	
32311M	Printing . . . . .	2003.. 622 139	23 107 260	448 119	862 336	14 238 608	52 678 139	34 449 163	87 169 540	1	1	
		2002.. 661 269	23 559 040	472 603	886 129	14 566 002	54 807 031	35 151 239	90 004 165	X	X	
32312	Support activities for printing . . . . .	2003.. 53 223	2 019 890	40 020	76 207	1 280 373	3 911 573	1 136 652	5 022 458	3	3	
		2002.. 56 144	2 128 228	42 198	80 503	1 355 617	4 185 214	1 208 466	5 383 499	X	X	
32312M	Support activities for printing . . . . .	2003.. 53 223	2 019 890	40 020	76 207	1 280 373	3 911 573	1 136 652	5 022 458	3	3	
		2002.. 56 144	2 128 228	42 198	80 503	1 355 617	4 185 214	1 208 466	5 383 499	X	X	
324	Petroleum and coal products manufacturing . . . . .	2003.. 101 390	6 411 303	65 762	145 820	3 820 706	45 415 097	192 642 197	237 010 657	1	1	
		2002.. 103 308	6 201 712	66 685	139 536	3 774 643	36 871 712	179 610 229	215 190 289	X	X	
3241	Petroleum and coal products manufacturing . . . . .	2003.. 101 390	6 411 303	65 762	145 820	3 820 706	45 415 097	192 642 197	237 010 657	1	1	
		2002.. 103 308	6 201 712	66 685	139 536	3 774 643	36 871 712	179 610 229	215 190 289	X	X	
32411	Petroleum refineries . . . . .	2003.. 61 037	4 532 313	38 018	87 164	2 652 414	36 233 834	178 771 591	213 998 465	1	1	
		2002.. 62 372	4 386 266	38 514	84 108	2 650 586	28 346 665	166 392 616	193 530 148	X	X	
324110	Petroleum refineries . . . . .	2003.. 61 037	4 532 313	38 018	87 164	2 652 414	36 233 834	178 771 591	213 998 465	1	1	
		2002.. 62 372	4 386 266	38 514	84 108	2 650 586	28 346 665	166 392 616	193 530 148	X	X	
32412	Asphalt paving, roofing, and saturated materials manufacturing . . . . .	2003.. 28 070	1 237 418	20 341	42 823	846 378	5 369 354	8 794 533	14 160 780	1	1	
		2002.. 27 438	1 152 750	20 155	39 637	794 192	5 355 663	8 169 966	13 444 389	X	X	
324121	Asphalt paving mixture and block manufacturing . . . . .	2003.. 15 337	658 697	10 907	21 968	449 660	2 699 965	4 917 284	7 615 356	2	2	
		2002.. 15 439	623 184	11 387	20 969	439 539	2 826 071	4 698 651	7 494 692	X	X	
324122	Asphalt shingle and coating materials manufacturing . . . . .	2003.. 12 733	578 721	9 434	20 855	396 717	2 669 388	3 877 249	6 545 424	1	1	
		2002.. 11 999	529 566	8 768	18 668	354 653	2 529 592	3 471 315	5 949 697	X	X	

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments <sup>3</sup> (\$1,000)	Relative standard error of estimate <sup>4</sup> (percent) for column—	
		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
324	Petroleum and coal products manufacturing—Con.										
3241	Petroleum and coal products manufacturing—Con.										
32419	Other petroleum and coal products manufacturing .....	2003.. 12 283	641 571	7 402	15 833	321 915	3 811 909	5 076 074	8 851 412	3	3
		2002.. 13 498	662 696	8 016	15 791	329 865	3 169 384	5 047 647	8 215 752	X	X
324191	Petroleum lubricating oil and grease manufacturing .....	2003.. 9 509	503 323	5 288	11 371	224 075	3 227 431	3 895 107	7 090 150	3	3
		2002.. 10 367	517 054	5 647	11 093	229 170	3 837 187	3 837 187	6 433 439	X	X
324199	All other petroleum and coal products manufacturing .....	2003.. 2 774	138 248	2 114	4 462	97 839	584 478	1 180 967	1 761 262	2	6
		2002.. 3 131	145 642	2 369	4 698	100 695	558 813	1 210 460	1 782 313	X	X
325	Chemical manufacturing .....	2003.. 829 499	45 081 596	480 492	993 938	21 452 191	260 288 247	218 567 119	477 360 035	1	1
		2002.. 857 249	44 784 380	484 701	985 878	21 231 516	253 976 982	206 553 648	460 451 102	X	X
3251	Basic chemical manufacturing .....	2003.. 171 892	10 538 325	99 454	213 976	5 511 375	45 884 382	71 563 554	117 253 977	1	2
		2002.. 181 467	10 864 281	103 358	221 849	5 649 473	45 533 140	64 180 991	109 717 554	X	X
32511	Petrochemical manufacturing .....	2003.. 8 211	613 317	4 606	10 203	332 519	6 186 833	16 202 807	22 203 751	1	1
		2002.. 9 380	656 367	5 129	10 928	345 891	6 905 548	14 162 327	21 084 070	X	X
325110	Petrochemical manufacturing .....	2003.. 8 211	613 317	4 606	10 203	332 519	6 186 833	16 202 807	22 203 751	1	1
		2002.. 9 380	656 367	5 129	10 928	345 891	6 905 548	14 162 327	21 084 070	X	X
32512	Industrial gas manufacturing .....	2003.. 10 391	599 109	5 048	11 142	284 825	3 859 767	2 618 091	6 444 193	2	2
		2002.. 10 650	592 745	5 112	10 686	278 556	3 518 657	2 422 965	5 906 227	X	X
325120	Industrial gas manufacturing .....	2003.. 10 391	599 109	5 048	11 142	284 825	3 859 767	2 618 091	6 444 193	2	2
		2002.. 10 650	592 745	5 112	10 686	278 556	3 518 657	2 422 965	5 906 227	X	X
32513	Synthetic dye and pigment manufacturing .....	2003.. 13 388	728 208	8 442	17 869	409 712	3 353 912	2 957 760	6 316 056	2	1
		2002.. 15 109	789 146	9 395	19 862	436 551	3 382 611	2 987 767	6 389 477	X	X
32513M	Synthetic dye and pigment manufacturing .....	2003.. 13 388	728 208	8 442	17 869	409 712	3 353 912	2 957 760	6 316 056	2	1
		2002.. 15 109	789 146	9 395	19 862	436 551	3 382 611	2 987 767	6 389 477	X	X
32518	Other basic inorganic chemical manufacturing .....	2003.. 56 085	3 463 636	30 329	62 199	1 644 530	11 951 869	8 116 273	20 077 689	1	1
		2002.. 57 302	3 463 947	31 068	65 807	1 680 352	11 235 835	8 358 955	19 529 624	X	X
325181	Alkalies and chlorine manufacturing .....	2003.. 5 890	373 094	4 144	8 127	243 226	1 866 167	1 691 633	3 564 085	1	1
		2002.. 6 253	384 934	4 302	9 183	250 461	1 282 907	1 538 450	2 809 496	X	X
325182	Carbon black manufacturing .....	2003.. 1 619	98 476	1 041	2 305	60 322	552 648	1 126 172	1 126 506	1	1
		2002.. 1 665	99 409	1 111	2 235	60 580	524 981	511 912	1 033 515	X	X
325188	All other basic inorganic chemical manufacturing .....	2003.. 48 576	2 992 065	25 144	51 766	1 340 982	9 533 054	5 852 467	15 387 099	1	1
		2002.. 49 384	2 979 604	25 655	54 389	1 369 311	9 427 947	6 308 593	15 686 613	X	X
32519	Other basic organic chemical manufacturing .....	2003.. 83 807	5 134 056	51 031	112 564	2 839 789	20 532 001	41 668 623	62 212 288	1	4
		2002.. 89 026	5 362 076	52 654	114 566	2 908 123	20 490 489	36 248 977	56 808 156	X	X
32519M	Other basic organic chemical manufacturing .....	2003.. 83 807	5 134 056	51 031	112 564	2 839 789	20 532 001	41 668 623	62 212 288	1	4
		2002.. 89 026	5 362 076	52 654	114 566	2 908 123	20 490 489	36 248 977	56 808 156	X	X
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	2003.. 94 211	5 077 327	64 954	139 949	3 112 366	23 630 098	40 343 368	63 949 012	1	1
		2002.. 100 118	5 283 168	68 891	144 428	3 268 618	22 464 221	37 961 044	60 188 246	X	X
32521	Resin and synthetic rubber manufacturing .....	2003.. 70 749	4 106 885	46 308	99 886	2 438 461	20 178 806	35 538 393	55 659 389	1	1
		2002.. 76 276	4 319 247	50 039	103 098	2 583 884	18 860 707	33 504 462	52 152 631	X	X
325211	Plastics material and resin manufacturing .....	2003.. 61 231	3 541 883	39 932	86 246	2 088 081	17 447 634	32 300 781	49 743 440	1	1
		2002.. 66 790	3 808 675	43 671	90 245	2 265 435	16 319 026	30 618 609	46 718 898	X	X
325212	Synthetic rubber manufacturing .....	2003.. 9 518	565 002	6 375	13 641	350 380	2 317 173	3 237 612	5 915 949	1	2
		2002.. 9 486	510 572	6 368	12 853	318 449	2 541 681	2 885 853	5 433 733	X	X
32522	Artificial and synthetic fibers and filaments manufacturing .....	2003.. 23 462	970 442	18 647	40 063	673 905	3 451 292	4 804 976	8 289 622	1	1
		2002.. 23 842	963 921	18 852	41 330	684 734	3 603 514	4 456 582	8 035 615	X	X
32522M	Artificial and synthetic fibers and filaments manufacturing .....	2003.. 23 462	970 442	18 647	40 063	673 905	3 451 292	4 804 976	8 289 622	1	1
		2002.. 23 842	963 921	18 852	41 330	684 734	3 603 514	4 456 582	8 035 615	X	X
3253	Pesticide, fertilizer, and other agricultural chemical manufacturing .....	2003.. 30 807	1 481 563	20 025	43 202	859 212	10 130 821	11 017 379	21 131 844	2	1
		2002.. 31 746	1 518 359	19 994	42 841	840 346	9 259 487	9 859 469	19 294 736	X	X
32531	Fertilizer manufacturing .....	2003.. 19 852	925 611	13 498	29 636	587 619	3 627 424	7 650 662	11 273 534	1	2
		2002.. 20 882	948 336	13 769	29 889	575 810	3 437 577	6 808 941	10 269 601	X	X
325311	Nitrogenous fertilizer manufacturing .....	2003.. 4 285	253 040	2 827	6 248	164 984	1 396 692	2 540 071	3 895 723	2	3
		2002.. 4 760	282 589	2 971	6 521	166 936	971 247	2 258 835	3 291 075	X	X
325312	Phosphatic fertilizer manufacturing .....	2003.. 6 203	345 458	4 652	10 656	243 020	1 037 927	3 155 952	4 239 644	1	1
		2002.. 6 286	335 245	4 612	10 730	234 512	1 371 077	2 620 083	3 945 412	X	X
325314	Fertilizer (mixing only) manufacturing .....	2003.. 9 364	327 114	6 019	12 731	179 615	1 192 805	1 954 640	3 138 167	3	4
		2002.. 9 836	330 502	6 186	12 638	174 362	1 095 253	1 930 023	3 033 114	X	X
32532	Pesticide and other agricultural chemical manufacturing .....	2003.. 10 955	555 952	6 526	13 566	271 593	6 503 398	3 366 716	9 858 310	6	2
		2002.. 10 864	570 023	6 225	12 952	264 536	5 821 910	3 050 528	9 025 135	X	X
325320	Pesticide and other agricultural chemical manufacturing .....	2003.. 10 955	555 952	6 526	13 566	271 593	6 503 398	3 366 716	9 858 310	6	2
		2002.. 10 864	570 023	6 225	12 952	264 536	5 821 910	3 050 528	9 025 135	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
325	Chemical manufacturing—Con.										
3254	Pharmaceutical and medicine manufacturing .....	2003.. 244 811	14 388 367	119 886	236 766	5 320 966	110 502 016	38 841 329	148 099 471	1	2
		2002.. 249 384	13 856 626	116 341	228 442	5 028 717	102 029 440	39 307 937	141 146 488	X	X
32541	Pharmaceutical and medicine manufacturing .....	2003.. 244 811	14 388 367	119 886	236 766	5 320 966	110 502 016	38 841 329	148 099 471	1	2
		2002.. 249 384	13 856 626	116 341	228 442	5 028 717	102 029 440	39 307 937	141 146 488	X	X
325411	Medicinal and botanical manufacturing .....	2003.. 20 367	1 125 565	11 014	21 778	490 295	7 065 934	3 861 999	10 956 475	1	2
		2002.. 20 473	1 094 039	10 875	21 413	492 600	7 945 573	4 306 731	12 226 652	X	X
325412	Pharmaceutical preparation manufacturing .....	2003.. 175 439	10 414 903	87 096	171 702	3 772 258	91 432 414	30 187 142	120 438 764	2	2
		2002.. 177 607	9 968 414	82 616	163 770	3 545 868	82 425 110	30 407 847	112 960 429	X	X
325413	In-vitro diagnostic substance manufacturing .....	2003.. 26 038	1 548 646	10 293	20 429	538 892	5 476 511	1 983 990	7 483 702	1	1
		2002.. 26 929	1 502 728	10 279	19 378	462 322	5 636 298	1 937 901	7 625 510	X	X
325414	Biological product (except diagnostic) manufacturing .....	2003.. 22 967	1 299 253	11 483	22 858	519 521	6 527 156	2 808 198	9 220 530	1	1
		2002.. 24 375	1 291 445	12 571	23 881	527 927	6 022 459	2 655 458	8 333 897	X	X
3255	Paint, coating, and adhesive manufacturing .....	2003.. 66 150	3 040 012	38 790	78 231	1 391 024	13 987 532	13 653 212	27 570 128	1	2
		2002.. 67 847	3 003 792	38 629	76 391	1 341 157	13 396 739	14 013 143	27 446 244	X	X
32551	Paint and coating manufacturing .....	2003.. 45 269	2 081 947	25 373	50 599	913 419	9 905 120	9 761 846	19 663 440	1	1
		2002.. 46 633	2 061 075	25 522	50 080	885 309	9 591 953	10 321 109	19 975 533	X	X
325510	Paint and coating manufacturing .....	2003.. 45 269	2 081 947	25 373	50 599	913 419	9 905 120	9 761 846	19 663 440	1	1
		2002.. 46 633	2 061 075	25 522	50 080	885 309	9 591 953	10 321 109	19 975 533	X	X
32552	Adhesive manufacturing .....	2003.. 20 881	958 065	13 417	27 632	477 606	4 082 412	3 891 366	7 906 688	2	5
		2002.. 21 214	942 717	13 107	26 311	455 848	3 804 786	3 692 034	7 470 711	X	X
325520	Adhesive manufacturing .....	2003.. 20 881	958 065	13 417	27 632	477 606	4 082 412	3 891 366	7 906 688	2	5
		2002.. 21 214	942 717	13 107	26 311	455 848	3 804 786	3 692 034	7 470 711	X	X
3256	Soap, cleaning compound, and toilet preparation manufacturing .....	2003.. 112 506	5 147 909	71 597	143 685	2 639 886	36 995 373	23 494 361	60 348 570	2	1
		2002.. 118 008	5 025 121	72 518	140 822	2 548 697	41 703 894	22 506 535	64 288 261	X	X
32561	Soap and cleaning compound manufacturing .....	2003.. 48 917	2 308 589	29 894	63 114	1 200 321	16 797 663	13 956 161	30 705 721	2	1
		2002.. 49 001	2 236 643	28 992	58 277	1 157 986	18 246 492	12 864 045	31 159 891	X	X
32561M	Soap and cleaning compound manufacturing .....	2003.. 48 917	2 308 589	29 894	63 114	1 200 321	16 797 663	13 956 161	30 705 721	2	1
		2002.. 49 001	2 236 643	28 992	58 277	1 157 986	18 246 492	12 864 045	31 159 891	X	X
32562	Toilet preparation manufacturing .....	2003.. 63 589	2 839 320	41 703	80 571	1 439 565	20 197 710	9 538 200	29 642 849	2	1
		2002.. 69 007	2 788 478	43 526	82 545	1 390 711	23 457 402	9 642 490	33 128 370	X	X
325620	Toilet preparation manufacturing .....	2003.. 63 589	2 839 320	41 703	80 571	1 439 565	20 197 710	9 538 200	29 642 849	2	1
		2002.. 69 007	2 788 478	43 526	82 545	1 390 711	23 457 402	9 642 490	33 128 370	X	X
3259	Other chemical product and preparation manufacturing .....	2003.. 109 132	5 408 092	65 784	138 129	2 617 362	19 158 025	19 653 915	39 007 033	1	1
		2002.. 108 679	5 233 033	64 970	131 105	2 554 508	19 590 061	18 724 529	38 369 573	X	X
32591	Printing ink manufacturing .....	2003.. 12 171	587 235	6 855	14 593	280 138	1 819 009	2 256 338	4 155 472	3	3
		2002.. 12 504	595 154	6 813	14 010	276 058	1 967 124	2 317 255	4 268 406	X	X
325910	Printing ink manufacturing .....	2003.. 12 171	587 235	6 855	14 593	280 138	1 819 009	2 256 338	4 155 472	3	3
		2002.. 12 504	595 154	6 813	14 010	276 058	1 967 124	2 317 255	4 268 406	X	X
32592	Explosives manufacturing .....	2003.. 5 657	229 240	3 857	7 975	122 062	584 815	413 275	997 146	7	7
		2002.. 5 752	232 883	4 133	7 679	138 587	603 237	417 073	1 033 242	X	X
325920	Explosives manufacturing .....	2003.. 5 657	229 240	3 857	7 975	122 062	584 815	413 275	997 146	7	7
		2002.. 5 752	232 883	4 153	7 679	138 587	603 237	417 073	1 033 242	X	X
32599	All other chemical product and preparation manufacturing .....	2003.. 91 305	4 591 617	55 073	115 561	2 215 162	16 754 201	16 984 302	33 854 416	1	1
		2002.. 90 423	4 404 996	54 004	109 416	2 139 863	17 019 700	15 990 201	33 067 925	X	X
325991	Custom compounding of purchased resins .....	2003.. 23 600	1 036 799	15 679	32 007	543 098	2 990 678	4 882 544	7 907 480	1	2
		2002.. 21 992	925 286	14 377	29 580	497 725	3 099 754	4 408 112	7 442 219	X	X
32599N	All other miscellaneous chemical product and preparation manufacturing (including photographic) .....	2003.. 67 705	3 554 819	39 394	83 553	1 672 064	13 763 523	12 101 758	25 946 935	1	1
		2002.. 68 431	3 479 710	39 627	79 836	1 642 138	13 919 946	11 582 089	25 625 706	X	X
326	Plastics and rubber products manufacturing .....	2003.. 933 887	32 164 867	731 640	1 491 477	21 573 516	91 590 693	84 946 138	176 344 190	1	1
		2002.. 979 650	32 490 642	762 787	1 510 984	21 744 873	92 196 901	81 846 568	173 900 666	X	X
3261	Plastics product manufacturing .....	2003.. 762 721	25 360 261	598 022	1 218 095	16 743 842	74 062 757	68 962 562	142 768 837	1	1
		2002.. 797 784	25 618 380	620 485	1 225 141	16 858 675	74 875 867	66 118 074	140 846 224	X	X
32611	Unsupported plastics film, sheet, and bag manufacturing .....	2003.. 109 011	4 294 282	84 077	176 554	2 879 986	13 954 991	14 956 307	28 853 759	2	1
		2002.. 113 361	4 280 259	87 721	176 632	2 860 670	13 925 707	14 283 539	28 185 226	X	X
326111	Plastics bag manufacturing .....	2003.. 34 332	1 217 921	27 411	60 860	858 744	3 787 472	4 164 520	7 964 753	1	2
		2002.. 34 476	1 167 608	27 477	56 577	801 447	3 521 964	3 664 763	7 169 588	X	X
326112	Plastics packaging film and sheet (including laminated) manufacturing .....	2003.. 27 995	1 164 933	22 036	46 653	819 833	3 991 237	4 177 057	8 126 003	1	2
		2002.. 26 826	1 113 479	21 007	44 113	784 244	3 865 306	3 678 893	7 550 440	X	X
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	2003.. 46 684	1 911 428	34 630	69 041	1 201 410	6 176 282	6 614 729	12 763 002	3	2
		2002.. 52 059	1 999 172	39 237	75 942	1 274 979	6 538 437	6 939 883	13 465 198	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
		A	B	C	D	E	F	G	H	A	F
326	Plastics and rubber products manufacturing—Con.										
3261	Plastics product manufacturing—Con.										
32612	Plastics pipe, pipe fitting, and unsupported profile shape manufacturing .....	2003.. 48 146	1 696 473	37 435	75 179	1 122 266	5 228 169	5 886 458	11 110 252	1	1
		2002.. 51 651	1 743 046	40 049	77 755	1 155 073	5 213 648	5 623 443	10 859 091	X	X
326121	Unsupported plastics profile shape manufacturing .....	2003.. 27 674	1 016 209	21 386	41 850	664 769	2 970 857	2 468 016	5 417 638	2	2
		2002.. 30 063	1 053 775	23 089	44 298	689 587	2 960 097	2 433 818	5 378 050	X	X
326122	Plastics pipe and pipe fitting manufacturing .....	2003.. 20 472	680 264	16 049	33 329	457 497	2 257 312	3 418 442	5 692 615	1	2
		2002.. 21 588	689 271	16 960	33 457	465 486	2 253 551	3 189 625	5 481 041	X	X
32613	Laminated plastics plate, sheet, and shape manufacturing .....	2003.. 10 753	419 113	8 523	16 932	302 363	1 177 633	1 105 048	2 284 488	3	2
		2002.. 11 854	441 585	9 118	17 689	311 449	1 181 485	1 080 792	2 264 376	X	X
326130	Laminated plastics plate, sheet, and shape manufacturing .....	2003.. 10 753	419 113	8 523	16 932	302 363	1 177 633	1 105 048	2 284 488	3	2
		2002.. 11 854	441 585	9 118	17 689	311 449	1 181 485	1 080 792	2 264 376	X	X
32614	Polystyrene foam product manufacturing .....	2003.. 31 375	1 010 065	24 564	48 906	704 294	3 668 152	3 035 004	6 647 428	4	3
		2002.. 33 261	1 004 107	26 053	51 732	689 805	3 603 699	2 873 007	6 459 579	X	X
326140	Polystyrene foam product manufacturing .....	2003.. 31 375	1 010 065	24 564	48 906	704 294	3 668 152	3 035 004	6 647 428	4	3
		2002.. 33 261	1 004 107	26 053	51 732	689 805	3 603 699	2 873 007	6 459 579	X	X
32615	Urethane and other foam product (except polystyrene) manufacturing .....	2003.. 32 363	996 730	25 480	47 771	643 340	3 118 024	3 990 496	7 105 019	3	11
		2002.. 33 981	1 048 293	26 502	50 528	667 061	3 270 662	3 706 771	6 970 089	X	X
326150	Urethane and other foam product (except polystyrene) manufacturing .....	2003.. 32 363	996 730	25 480	47 771	643 340	3 118 024	3 990 496	7 105 019	3	11
		2002.. 33 981	1 048 293	26 502	50 528	667 061	3 270 662	3 706 771	6 970 089	X	X
32616	Plastics bottle manufacturing .....	2003.. 32 392	1 129 557	28 141	58 015	902 937	3 739 757	4 330 274	8 085 511	1	2
		2002.. 34 138	1 139 231	29 310	58 214	909 416	3 891 822	4 125 035	7 955 134	X	X
326160	Plastics bottle manufacturing .....	2003.. 32 392	1 129 557	28 141	58 015	902 937	3 739 757	4 330 274	8 085 511	1	2
		2002.. 34 138	1 139 231	29 310	58 214	909 416	3 891 822	4 125 035	7 955 134	X	X
32619	Other plastics product manufacturing .....	2003.. 498 682	15 814 041	389 801	794 738	10 188 655	43 176 033	35 658 974	78 682 381	2	1
		2002.. 519 538	15 961 859	401 732	792 591	10 265 201	43 788 844	34 425 487	78 152 729	X	X
32619M	Other plastics product manufacturing .....	2003.. 498 682	15 814 041	389 801	794 738	10 188 655	43 176 033	35 658 974	78 682 381	2	1
		2002.. 519 538	15 961 859	401 732	792 591	10 265 201	43 788 844	34 425 487	78 152 729	X	X
3262	Rubber product manufacturing .....	2003.. 171 166	6 804 606	133 618	273 383	4 829 674	17 527 936	15 983 576	33 575 352	1	1
		2002.. 181 866	6 872 262	142 302	285 843	4 886 198	17 321 034	15 728 494	33 054 442	X	X
32621	Tire manufacturing .....	2003.. 65 852	3 155 022	52 555	105 512	2 417 891	7 999 832	7 336 329	15 356 580	1	1
		2002.. 69 055	3 151 828	55 637	112 366	2 434 613	7 663 806	7 070 955	14 744 464	X	X
32621M	Tire manufacturing .....	2003.. 65 852	3 155 022	52 555	105 512	2 417 891	7 999 832	7 336 329	15 356 580	1	1
		2002.. 69 055	3 151 828	55 637	112 366	2 434 613	7 663 806	7 070 955	14 744 464	X	X
32622	Rubber and plastics hoses and belting manufacturing .....	2003.. 22 269	776 665	17 016	35 183	522 992	2 114 779	1 834 922	3 981 721	1	1
		2002.. 23 537	795 258	18 070	35 987	527 983	2 114 410	1 904 668	4 020 795	X	X
326220	Rubber and plastics hoses and belting manufacturing .....	2003.. 22 269	776 665	17 016	35 183	522 992	2 114 779	1 834 922	3 981 721	1	1
		2002.. 23 537	795 258	18 070	35 987	527 983	2 114 410	1 904 668	4 020 795	X	X
32629	Other rubber product manufacturing .....	2003.. 83 045	2 872 919	64 047	132 688	1 888 791	7 413 325	6 812 326	14 237 051	1	1
		2002.. 89 274	2 925 176	68 595	137 490	1 923 602	7 542 818	6 752 871	14 289 183	X	X
32629M	Other rubber product manufacturing .....	2003.. 83 045	2 872 919	64 047	132 688	1 888 791	7 413 325	6 812 326	14 237 051	1	1
		2002.. 89 274	2 925 176	68 595	137 490	1 923 602	7 542 818	6 752 871	14 289 183	X	X
327	Nonmetallic mineral product manufacturing .....	2003.. 462 515	17 732 857	360 472	762 736	12 478 736	54 767 557	41 540 658	96 349 223	1	1
		2002.. 484 146	17 959 370	375 699	766 924	12 536 704	54 841 932	40 579 746	95 265 486	X	X
3271	Clay product and refractory manufacturing .....	2003.. 57 388	1 936 478	45 501	94 124	1 341 936	5 337 295	2 888 531	8 230 861	1	2
		2002.. 60 704	2 038 199	47 848	97 299	1 402 297	5 464 041	2 896 374	8 306 206	X	X
32711	Pottery, ceramics, and plumbing fixture manufacturing .....	2003.. 26 405	851 417	20 916	43 023	583 190	2 111 010	1 026 080	3 119 186	2	1
		2002.. 29 664	968 170	23 515	47 929	661 628	2 208 845	1 117 568	3 314 597	X	X
327111	Vitreous china plumbing fixture and china and earthenware bathroom accessories manufacturing .....	2003.. 7 153	236 279	6 096	12 586	192 853	789 232	279 704	1 048 918	1	1
		2002.. 8 054	282 537	6 717	14 010	220 410	835 905	309 810	1 136 525	X	X
327112	Vitreous china, fine earthenware, and other pottery product manufacturing .....	2003.. 11 449	312 997	9 065	18 646	209 265	664 464	356 077	1 008 323	3	3
		2002.. 12 949	346 838	10 367	20 342	241 100	652 868	381 796	1 040 337	X	X
327113	Porcelain electrical supply manufacturing .....	2003.. 7 803	302 141	5 724	11 791	181 072	657 315	390 298	1 061 945	2	2
		2002.. 8 661	338 795	6 431	13 577	200 118	720 072	425 962	1 137 735	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
327	Nonmetallic mineral product manufacturing—Con.										
3271	Clay product and refractory manufacturing—Con.										
32712	Clay building material and refractories manufacturing .....	2003.. 30 983	1 085 061	24 585	51 101	758 746	3 226 285	1 862 451	5 111 675	1	3
		2002.. 31 040	1 070 029	24 333	49 370	740 669	3 255 196	1 778 806	4 991 609	X	X
327121	Brick and structural clay tile manufacturing .....	2003.. 13 460	438 685	11 324	23 884	327 490	1 374 823	551 099	1 928 190	1	2
		2002.. 13 201	429 744	10 783	22 034	314 435	1 388 100	511 445	1 853 360	X	X
327122	Ceramic wall and floor tile manufacturing .....	2003.. 6 498	203 476	5 288	10 723	150 448	630 797	328 618	965 714	1	1
		2002.. 6 482	202 466	5 316	10 604	146 732	659 874	320 685	978 394	X	X
327123	Other structural clay product manufacturing .....	2003.. 1 649	55 682	1 270	2 740	38 496	148 858	63 168	210 653	1	1
		2002.. 1 683	55 756	1 299	2 723	38 740	144 192	59 335	200 678	X	X
32712N	Refractory manufacturing .....	2003.. 9 376	387 217	6 703	13 754	242 312	1 071 808	919 565	2 007 118	4	7
		2002.. 9 674	382 063	6 935	14 009	240 762	1 063 030	887 341	1 959 177	X	X
3272	Glass and glass product manufacturing .....	2003.. 107 846	4 211 053	87 660	180 377	3 100 751	12 594 107	9 634 133	22 227 139	2	1
		2002.. 115 708	4 403 086	93 416	188 540	3 207 453	13 044 102	9 321 607	22 430 734	X	X
32721	Glass and glass product manufacturing .....	2003.. 107 846	4 211 053	87 660	180 377	3 100 751	12 594 107	9 634 133	22 227 139	2	1
		2002.. 115 708	4 403 086	93 416	188 540	3 207 453	13 044 102	9 321 607	22 430 734	X	X
327211	Flat glass manufacturing .....	2003.. 10 323	473 697	8 337	17 121	347 095	1 729 776	1 320 206	2 847 634	1	1
		2002.. 10 683	469 781	8 673	17 931	351 418	1 678 192	1 052 028	2 750 510	X	X
327212	Other pressed and blown glass and glassware manufacturing .....	2003.. 25 051	984 621	20 426	41 696	738 527	2 628 066	1 530 098	4 154 919	1	1
		2002.. 27 780	1 085 824	22 846	46 328	614 252	3 013 272	1 622 353	4 722 418	X	X
327213	Glass container manufacturing .....	2003.. 15 501	743 860	13 506	28 065	620 176	2 648 498	1 752 232	4 360 732	1	1
		2002.. 16 102	760 453	13 998	29 344	636 999	2 726 755	1 632 380	4 359 939	X	X
327215	Glass product manufacturing made of purchased glass .....	2003.. 56 971	2 008 875	45 391	93 495	1 394 953	5 587 767	5 231 597	10 863 853	3	3
		2002.. 61 143	2 087 028	47 899	94 937	1 404 752	5 625 883	5 014 846	10 597 867	X	X
3273	Cement and concrete product manufacturing .....	2003.. 210 209	8 012 746	161 296	347 410	5 621 605	24 466 411	20 625 462	45 083 509	1	1
		2002.. 218 545	8 015 863	167 207	342 069	5 575 442	24 374 878	20 259 192	44 519 561	X	X
32731	Cement manufacturing .....	2003.. 17 374	901 341	12 921	28 459	617 230	4 563 653	2 942 619	7 549 813	1	1
		2002.. 17 660	890 528	13 178	28 329	614 252	4 542 435	2 921 196	7 407 574	X	X
327310	Cement manufacturing .....	2003.. 17 374	901 341	12 921	28 459	617 230	4 563 653	2 942 619	7 549 813	1	1
		2002.. 17 660	890 528	13 178	28 329	614 252	4 542 435	2 921 196	7 407 574	X	X
32732	Ready-mix concrete manufacturing .....	2003.. 97 082	3 770 058	78 799	169 925	2 912 488	10 619 479	11 599 306	22 194 795	1	1
		2002.. 98 969	3 661 822	79 855	160 851	2 805 284	10 289 062	11 301 504	21 578 331	X	X
327320	Ready-mix concrete manufacturing .....	2003.. 97 082	3 770 058	78 799	169 925	2 912 488	10 619 479	11 599 306	22 194 795	1	1
		2002.. 98 969	3 661 822	79 855	160 851	2 805 284	10 289 062	11 301 504	21 578 331	X	X
32733	Concrete pipe, brick, and block manufacturing .....	2003.. 34 658	1 322 254	23 728	54 393	786 799	4 157 608	2 799 145	6 965 040	1	2
		2002.. 35 711	1 297 319	24 974	53 712	786 880	3 997 121	2 747 513	6 705 305	X	X
32733M	Concrete pipe, brick, and block manufacturing .....	2003.. 34 658	1 322 254	23 728	54 393	786 799	4 157 608	2 799 145	6 965 040	1	2
		2002.. 35 711	1 297 319	24 974	53 712	786 880	3 997 121	2 747 513	6 705 305	X	X
32739	Other concrete product manufacturing .....	2003.. 61 094	2 019 093	45 848	94 634	1 305 088	5 125 670	3 284 393	8 373 860	2	3
		2002.. 66 205	2 166 194	49 200	99 177	1 369 026	5 546 260	3 288 979	8 828 351	X	X
327390	Other concrete product manufacturing .....	2003.. 61 094	2 019 093	45 848	94 634	1 305 088	5 125 670	3 284 393	8 373 860	2	3
		2002.. 66 205	2 166 194	49 200	99 177	1 369 026	5 546 260	3 288 979	8 828 351	X	X
3274	Lime and gypsum product manufacturing .....	2003.. 16 373	743 643	13 073	30 467	553 626	2 636 355	2 868 977	5 528 491	2	1
		2002.. 16 447	707 592	12 977	29 337	520 856	2 589 678	2 594 774	5 189 725	X	X
32741	Lime manufacturing .....	2003.. 3 634	164 913	2 791	6 564	122 724	548 551	441 009	994 347	1	2
		2002.. 3 978	172 619	3 039	6 930	127 196	578 901	437 107	1 015 520	X	X
327410	Lime manufacturing .....	2003.. 3 634	164 913	2 791	6 564	122 724	548 551	441 009	994 347	1	2
		2002.. 3 978	172 619	3 039	6 930	127 196	578 901	437 107	1 015 520	X	X
32742	Gypsum product manufacturing .....	2003.. 12 739	578 730	10 282	23 903	430 902	2 087 804	2 427 968	4 534 144	2	1
		2002.. 12 469	534 973	9 938	22 407	393 660	2 010 777	2 157 667	4 174 205	X	X
327420	Gypsum product manufacturing .....	2003.. 12 739	578 730	10 282	23 903	430 902	2 087 804	2 427 968	4 534 144	2	1
		2002.. 12 469	534 973	9 938	22 407	393 660	2 010 777	2 157 667	4 174 205	X	X
3279	Other nonmetallic mineral product manufacturing .....	2003.. 70 699	2 828 936	52 942	110 358	1 860 817	9 733 389	5 523 555	15 279 223	1	1
		2002.. 72 742	2 794 630	54 251	109 679	1 830 656	9 369 233	5 507 799	14 819 260	X	X
32791	Abrasive product manufacturing .....	2003.. 15 354	669 363	10 704	22 508	350 157	2 595 309	1 177 833	3 788 647	1	1
		2002.. 17 040	693 664	11 805	23 839	368 617	2 429 021	1 240 426	3 646 670	X	X
327910	Abrasive product manufacturing .....	2003.. 15 354	669 363	10 704	22 508	350 157	2 595 309	1 177 833	3 788 647	1	1
		2002.. 17 040	693 664	11 805	23 839	368 617	2 429 021	1 240 426	3 646 670	X	X
32799	All other nonmetallic mineral product manufacturing .....	2003.. 55 345	2 159 574	42 239	87 851	1 510 661	7 138 080	4 345 721	11 490 576	1	1
		2002.. 55 702	2 100 966	42 446	85 840	1 462 039	6 940 212	4 267 373	11 172 590	X	X
327991	Cut stone and stone product manufacturing .....	2003.. 21 150	718 440	16 547	33 413	511 437	1 594 697	760 417	2 344 239	3	3
		2002.. 20 674	689 529	16 192	31 969	493 450	1 540 711	736 956	2 263 510	X	X
327992	Ground or treated mineral and earth manufacturing .....	2003.. 7 428	309 088	5 145	10 488	197 673	1 540 505	741 039	2 277 048	4	4
		2002.. 6 838	278 821	4 646	9 511	172 863	1 409 583	666 417	2 065 017	X	X
327993	Mineral wool manufacturing .....	2003.. 17 787	803 636	14 623	31 999	616 733	2 862 570	1 888 911	4 772 342	2	2
		2002.. 19 313	814 327	15 783	32 834	620 529	2 961 896	1 973 378	4 923 290	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
		A	B	C	D	E				F	G
327	Nonmetallic mineral product manufacturing—Con.										
3279	Other nonmetallic mineral product manufacturing—Con.										
32799	All other nonmetallic mineral product manufacturing—Con.										
327999	All other miscellaneous nonmetallic mineral product manufacturing .....	2003.. 8 980	328 409	5 924	11 951	184 818	1 140 308	955 354	2 096 946	2	2
		2002.. 8 877	318 289	5 825	11 526	175 197	1 028 022	890 622	1 920 773	X	X
331	Primary metal manufacturing .....	2003.. 455 527	20 196 490	357 364	756 524	14 604 164	54 193 857	82 018 566	136 838 586	1	1
		2002.. 490 736	21 411 688	383 515	796 655	15 420 631	57 492 001	81 894 936	139 449 499	X	X
3311	Iron and steel mills and ferroalloy manufacturing .....	2003.. 108 839	5 919 000	86 559	179 880	4 536 065	17 637 040	28 968 570	47 229 828	1	1
		2002.. 119 881	6 296 268	93 773	196 465	4 760 524	18 618 021	28 543 051	47 258 490	X	X
33111	Iron and steel mills and ferroalloy manufacturing .....	2003.. 108 839	5 919 000	86 559	179 880	4 536 065	17 637 040	28 968 570	47 229 828	1	1
		2002.. 119 881	6 296 268	93 773	196 465	4 760 524	18 618 021	28 543 051	47 258 490	X	X
33111M	Iron and steel mills and ferroalloy manufacturing .....	2003.. 108 839	5 919 000	86 559	179 880	4 536 065	17 637 040	28 968 570	47 229 828	1	1
		2002.. 119 881	6 296 268	93 773	196 465	4 760 524	18 618 021	28 543 051	47 258 490	X	X
3312	Steel product manufacturing from purchased steel .....	2003.. 48 347	1 969 114	37 948	80 106	1 401 200	5 023 136	8 848 896	13 944 895	1	1
		2002.. 52 117	2 117 699	40 553	85 783	1 495 869	5 597 286	9 218 091	14 784 108	X	X
33121	Iron and steel pipe and tube manufacturing from purchased steel .....	2003.. 20 459	820 874	15 993	34 335	588 376	1 905 263	3 712 117	5 648 369	2	3
		2002.. 21 148	847 511	16 310	35 150	590 654	2 244 258	3 537 669	5 795 533	X	X
331210	Iron and steel pipe and tube manufacturing from purchased steel .....	2003.. 20 459	820 874	15 993	34 335	588 376	1 905 263	3 712 117	5 648 369	2	3
		2002.. 21 148	847 511	16 310	35 150	590 654	2 244 258	3 537 669	5 795 533	X	X
33122	Rolling and drawing of purchased steel .....	2003.. 27 888	1 148 240	21 954	45 771	812 823	3 117 873	5 136 779	8 296 526	1	1
		2002.. 30 969	1 270 188	24 243	50 633	905 215	3 353 028	5 680 422	8 988 575	X	X
33122M	Rolling and drawing of purchased steel .....	2003.. 27 888	1 148 240	21 954	45 771	812 823	3 117 873	5 136 779	8 296 526	1	1
		2002.. 30 969	1 270 188	24 243	50 633	905 215	3 353 028	5 680 422	8 988 575	X	X
3313	Alumina and aluminum production and processing .....	2003.. 70 472	2 973 407	53 011	118 283	2 049 692	9 080 372	18 853 954	27 749 418	1	1
		2002.. 71 030	3 143 536	54 132	114 351	2 161 604	9 883 917	18 833 700	28 570 303	X	X
33131	Alumina and aluminum production and processing .....	2003.. 70 472	2 973 407	53 011	118 283	2 049 692	9 080 372	18 853 954	27 749 418	1	1
		2002.. 71 030	3 143 536	54 132	114 351	2 161 604	9 883 917	18 833 700	28 570 303	X	X
331311	Alumina refining .....	2003.. 1 644	87 909	1 122	2 730	55 506	143 389	673 336	811 342	1	3
		2002.. 1 554	89 451	1 149	2 633	60 510	260 084	576 901	830 110	X	X
331312	Primary aluminum production .....	2003.. 11 094	544 077	8 623	18 232	391 119	1 715 505	2 816 880	4 554 419	1	1
		2002.. 12 476	654 410	9 493	19 796	469 511	1 887 601	3 036 483	4 977 477	X	X
331314	Secondary smelting and alloying of aluminum .....	2003.. 6 442	258 504	4 853	11 138	175 533	675 030	3 165 516	3 829 352	3	1
		2002.. 5 995	258 081	4 321	9 347	163 508	753 055	3 026 819	3 801 483	X	X
331316	Aluminum extruded product manufacturing .....	2003.. 25 980	945 014	20 481	46 595	646 960	2 132 058	3 391 309	5 539 872	2	2
		2002.. 27 511	988 623	21 632	44 859	674 632	2 326 038	3 402 514	5 735 620	X	X
33131N	Aluminum rolling and drawing .....	2003.. 25 311	1 137 903	17 931	39 588	780 574	4 414 390	8 806 913	13 014 432	1	1
		2002.. 23 494	1 152 971	17 537	37 716	793 443	4 657 139	8 790 983	13 225 613	X	X
3314	Nonferrous metal (except aluminum) production and processing .....	2003.. 60 826	2 674 247	43 809	93 816	1 700 892	8 004 603	14 135 465	22 173 491	1	2
		2002.. 67 234	2 862 139	48 400	99 346	1 810 735	7 973 615	14 083 275	22 203 863	X	X
33141	Nonferrous metal (except aluminum) smelting and refining .....	2003.. 8 408	402 830	5 863	12 659	247 121	1 575 300	3 077 687	4 639 017	1	1
		2002.. 10 235	470 088	7 057	14 727	290 606	1 751 499	3 069 486	4 861 631	X	X
331411	Primary smelting and refining of copper .....	2003.. 1 469	64 482	1 187	2 586	49 810	621 195	1 736 946	2 314 119	1	1
		2002.. 2 674	110 798	2 171	4 448	84 446	787 423	1 772 030	2 615 252	X	X
331419	Primary smelting and refining of nonferrous metal (except copper and aluminum) .....	2003.. 6 939	338 348	4 676	10 073	197 311	954 105	1 340 740	2 324 898	2	2
		2002.. 7 561	359 290	4 886	10 279	206 160	964 076	1 297 456	2 246 379	X	X
33142	Copper rolling, drawing, extruding, and alloying .....	2003.. 26 812	1 123 632	20 222	42 809	744 796	3 196 531	7 034 319	10 183 741	1	2
		2002.. 29 558	1 198 603	22 251	45 600	782 023	3 076 397	6 955 374	10 059 169	X	X
33142M	Copper rolling, drawing, extruding, and alloying .....	2003.. 26 812	1 123 632	20 222	42 809	744 796	3 196 531	7 034 319	10 183 741	1	2
		2002.. 29 558	1 198 603	22 251	45 600	782 023	3 076 397	6 955 374	10 059 169	X	X
33149	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying .....	2003.. 25 606	1 147 785	17 724	38 348	708 974	3 232 772	4 023 459	7 350 733	1	3
		2002.. 27 441	1 193 448	19 092	39 019	738 106	3 145 719	4 058 415	7 283 063	X	X
33149M	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying .....	2003.. 25 606	1 147 785	17 724	38 348	708 974	3 232 772	4 023 459	7 350 733	1	3
		2002.. 27 441	1 193 448	19 092	39 019	738 106	3 145 719	4 058 415	7 283 063	X	X

See footnotes at end of table.

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments <sup>3</sup> (\$1,000)	Relative standard error of estimate <sup>4</sup> (percent) for column—		
		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F	
												A
331	Primary metal manufacturing—Con.											
3315	Foundries .....	2003..	167 044	6 660 721	136 037	284 439	4 916 316	14 448 706	11 211 681	25 740 955	2	1
		2002..	180 474	6 992 046	146 657	300 710	5 191 899	15 419 162	11 216 819	26 632 735	X	X
33151	Ferrous metal foundries .....	2003..	89 850	3 842 335	73 103	152 921	2 891 567	8 187 163	6 373 999	14 652 502	1	1
		2002..	99 931	4 123 531	81 068	165 982	3 093 997	8 797 390	6 247 293	15 037 327	X	X
33151M	Ferrous metal foundries .....	2003..	89 850	3 842 335	73 103	152 921	2 891 567	8 187 163	6 373 999	14 652 502	1	1
		2002..	99 931	4 123 531	81 068	165 982	3 093 997	8 797 390	6 247 293	15 037 327	X	X
33152	Nonferrous metal foundries .....	2003..	77 193	2 818 387	62 934	131 518	2 024 749	6 261 543	4 837 682	11 088 452	3	2
		2002..	80 543	2 868 515	65 589	134 728	2 097 902	6 621 772	4 969 526	11 595 408	X	X
33152N	Aluminum foundries .....	2003..	52 650	1 931 771	43 405	91 863	1 423 535	4 185 357	3 531 481	7 714 406	5	3
		2002..	54 574	1 985 736	44 684	93 930	1 481 762	4 482 547	3 693 766	8 163 478	X	X
33152P	Foundries not aluminum .....	2003..	25 543	886 615	19 529	39 655	601 214	2 076 186	1 306 201	3 374 046	2	2
		2002..	25 969	882 779	20 927	40 798	616 140	2 139 225	1 275 760	3 431 930	X	X
332	Fabricated metal product manufacturing .....	2003..	1 484 059	55 881 631	1 107 558	2 271 243	35 875 046	137 231 578	107 470 229	244 662 353	1	1
		2002..	1 573 613	57 431 314	1 168 568	2 317 327	36 554 628	138 650 577	107 996 574	246 734 367	X	X
3321	Forging and stamping .....	2003..	121 118	4 670 683	92 423	195 888	3 051 050	10 951 034	10 762 508	21 740 411	1	3
		2002..	127 440	4 812 058	95 662	193 214	3 070 044	10 648 884	10 642 957	21 314 893	X	X
33211	Forging and stamping .....	2003..	121 118	4 670 683	92 423	195 888	3 051 050	10 951 034	10 762 508	21 740 411	1	3
		2002..	127 440	4 812 058	95 662	193 214	3 070 044	10 648 884	10 642 957	21 314 893	X	X
332114	Custom roll forming .....	2003..	17 085	648 315	12 684	27 893	412 182	1 856 797	2 682 584	4 564 652	2	4
		2002..	17 391	644 652	13 011	26 926	407 880	1 766 153	2 319 866	4 068 186	X	X
332117	Powder metallurgy parts manufacturing .....	2003..	8 595	307 884	6 650	13 830	218 352	819 131	533 620	1 344 604	3	13
		2002..	9 102	324 973	6 924	13 701	214 003	721 820	521 470	1 258 507	X	X
33211N	Forging .....	2003..	27 685	1 213 131	20 623	47 339	791 031	2 634 425	3 089 723	5 728 682	2	2
		2002..	31 557	1 296 003	23 157	47 008	836 692	2 806 055	3 250 614	6 093 927	X	X
33211P	Crown, closure, and metal stamping manufacturing .....	2003..	67 754	2 501 353	52 466	106 827	1 629 486	5 640 681	4 450 582	10 102 473	1	4
		2002..	69 390	2 546 430	52 570	105 579	1 611 469	5 354 856	4 551 007	9 894 273	X	X
3322	Cutlery and handtool manufacturing ...	2003..	57 097	2 172 886	41 912	82 825	1 295 854	6 249 692	3 849 988	10 107 075	1	1
		2002..	61 759	2 308 725	44 908	88 227	1 368 238	6 421 947	4 063 666	10 458 540	X	X
33221	Cutlery and hand tool manufacturing .....	2003..	57 097	2 172 886	41 912	82 825	1 295 854	6 249 692	3 849 988	10 107 075	1	1
		2002..	61 759	2 308 725	44 908	88 227	1 368 238	6 421 947	4 063 666	10 458 540	X	X
33221N	Cutlery, kitchen utensil, pot, and pan manufacturing .....	2003..	12 676	519 750	9 730	19 349	329 633	1 868 204	1 353 589	3 214 149	2	2
		2002..	12 725	518 883	9 456	18 339	318 162	1 821 557	1 370 336	3 173 934	X	X
33221P	Hand tool and saw blade manufacturing .....	2003..	44 421	1 653 137	32 182	63 476	966 221	4 381 488	2 496 399	6 892 926	1	1
		2002..	49 034	1 789 842	35 452	69 888	1 050 076	4 600 390	2 693 330	7 284 606	X	X
3323	Architectural and structural metals manufacturing .....	2003..	371 966	13 154 721	267 280	544 743	8 074 407	30 293 509	28 954 745	59 255 710	1	1
		2002..	387 655	13 485 418	278 231	550 677	8 208 237	31 299 084	28 925 307	60 190 090	X	X
33231	Plate work and fabricated structural product manufacturing ...	2003..	152 544	5 739 139	106 547	218 021	3 494 454	13 342 705	13 901 478	27 169 199	1	2
		2002..	162 787	6 014 569	114 759	230 242	3 652 577	14 141 921	14 039 993	28 104 663	X	X
33231M	Plate work and fabricated structural product manufacturing .....	2003..	152 544	5 739 139	106 547	218 021	3 494 454	13 342 705	13 901 478	27 169 199	1	2
		2002..	162 787	6 014 569	114 759	230 242	3 652 577	14 141 921	14 039 993	28 104 663	X	X
33232	Ornamental and architectural metal work manufacturing .....	2003..	219 422	7 415 581	160 733	326 721	4 579 953	16 950 804	15 053 266	32 086 511	1	1
		2002..	224 868	7 470 849	163 472	320 435	4 555 660	17 157 163	14 885 314	32 085 427	X	X
33232M	Ornamental and architectural metal work manufacturing .....	2003..	219 422	7 415 581	160 733	326 721	4 579 953	16 950 804	15 053 266	32 086 511	1	1
		2002..	224 868	7 470 849	163 472	320 435	4 555 660	17 157 163	14 885 314	32 085 427	X	X
3324	Boiler, tank, and shipping container manufacturing .....	2003..	85 347	3 552 428	65 547	140 107	2 423 102	10 190 407	12 509 921	22 694 934	1	2
		2002..	89 285	3 559 590	67 913	140 277	2 410 689	10 208 553	12 748 831	23 019 265	X	X
33241	Power boiler and heat exchanger manufacturing .....	2003..	18 856	792 346	13 266	26 925	471 927	1 978 089	1 356 772	3 321 772	2	9
		2002..	19 743	792 267	13 757	28 309	472 693	1 956 089	1 655 957	3 616 110	X	X
332410	Power boiler and heat exchanger manufacturing .....	2003..	18 856	792 346	13 266	26 925	471 927	1 978 089	1 356 772	3 321 772	2	9
		2002..	19 743	792 267	13 757	28 309	472 693	1 956 089	1 655 957	3 616 110	X	X
33242	Metal tank (heavy gauge) manufacturing .....	2003..	29 575	1 159 022	21 838	44 185	746 970	2 696 257	2 085 227	4 753 048	2	2
		2002..	31 113	1 188 473	22 822	45 469	761 724	2 618 309	2 159 630	4 797 732	X	X
332420	Metal tank (heavy gauge) manufacturing .....	2003..	29 575	1 159 022	21 838	44 185	746 970	2 696 257	2 085 227	4 753 048	2	2
		2002..	31 113	1 188 473	22 822	45 469	761 724	2 618 309	2 159 630	4 797 732	X	X
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	2003..	36 915	1 601 060	30 443	68 996	1 204 205	5 516 061	9 067 922	14 620 114	1	1
		2002..	38 429	1 578 850	31 334	66 499	1 176 272	5 634 155	8 933 244	14 605 423	X	X
33243M	Metal can, box, and other metal container (light gauge) manufacturing .....	2003..	36 915	1 601 060	30 443	68 996	1 204 205	5 516 061	9 067 922	14 620 114	1	1
		2002..	38 429	1 578 850	31 334	66 499	1 176 272	5 634 155	8 933 244	14 605 423	X	X
3325	Hardware manufacturing .....	2003..	55 763	1 965 842	41 760	81 866	1 196 653	5 837 467	4 277 304	10 166 192	1	1
		2002..	60 966	2 078 759	46 404	90 667	1 291 794	6 006 977	4 360 813	10 372 489	X	X
33251	Hardware manufacturing .....	2003..	55 763	1 965 842	41 760	81 866	1 196 653	5 837 467	4 277 304	10 166 192	1	1
		2002..	60 966	2 078 759	46 404	90 667	1 291 794	6 006 977	4 360 813	10 372 489	X	X
332510	Hardware manufacturing .....	2003..	55 763	1 965 842	41 760	81 866	1 196 653	5 837 467	4 277 304	10 166 192	1	1
		2002..	60 966	2 078 759	46 404	90 667	1 291 794	6 006 977	4 360 813	10 372 489	X	X

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments <sup>3</sup> (\$1,000)	Relative standard error of estimate <sup>4</sup> (percent) for column—	
		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
332	Fabricated metal product manufacturing—Con.										
3326	Spring and wire product manufacturing .....	2003.. 62 294	2 035 213	48 967	99 125	1 348 635	5 012 012	4 135 716	9 146 348	1	2
		2002.. 63 516	2 027 075	49 447	97 913	1 318 770	5 120 941	3 996 925	9 114 560	X	X
33261	Spring and wire product manufacturing .....	2003.. 62 294	2 035 213	48 967	99 125	1 348 635	5 012 012	4 135 716	9 146 348	1	2
		2002.. 63 516	2 027 075	49 447	97 913	1 318 770	5 120 941	3 996 925	9 114 560	X	X
33261M	Spring and wire product manufacturing .....	2003.. 62 294	2 035 213	48 967	99 125	1 348 635	5 012 012	4 135 716	9 146 348	1	2
		2002.. 63 516	2 027 075	49 447	97 913	1 318 770	5 120 941	3 996 925	9 114 560	X	X
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing ...	2003.. 336 608	13 358 744	256 731	534 541	9 088 977	27 781 149	14 722 153	42 204 581	1	1
		2002.. 362 123	13 609 900	274 016	539 287	9 110 017	28 276 090	14 701 945	42 957 144	X	X
33271	Machine shops .....	2003.. 221 895	8 840 682	169 089	340 896	5 996 830	17 691 119	8 651 594	26 141 037	1	2
		2002.. 241 155	9 010 851	181 343	350 184	5 996 657	17 905 567	8 580 220	26 465 660	X	X
332710	Machine shops .....	2003.. 221 895	8 840 682	169 089	340 896	5 996 830	17 691 119	8 651 594	26 141 037	1	2
		2002.. 241 155	9 010 851	181 343	350 184	5 996 657	17 905 567	8 580 220	26 465 660	X	X
33272	Turned product and screw, nut, and bolt manufacturing .....	2003.. 114 713	4 518 063	87 642	193 645	3 092 147	10 090 031	6 070 559	16 063 544	2	1
		2002.. 120 968	4 599 049	92 673	189 103	3 113 360	10 370 523	6 121 725	16 491 484	X	X
332721	Precision turned product manufacturing .....	2003.. 70 538	2 726 298	55 645	123 231	1 942 641	5 703 940	2 819 467	8 472 255	2	2
		2002.. 76 171	2 803 226	59 303	119 691	1 957 308	5 918 608	2 797 586	8 715 138	X	X
332722	Bolt, nut, screw, rivet, and washer manufacturing .....	2003.. 44 175	1 791 765	31 996	70 414	1 149 506	4 386 091	3 251 092	7 591 289	1	2
		2002.. 44 797	1 795 823	33 370	69 412	1 156 052	4 451 915	3 324 139	7 776 346	X	X
3328	Coating, engraving, heat treating, and allied activities .....	2003.. 127 594	4 428 084	99 166	201 566	2 964 153	10 355 507	7 874 006	18 271 178	2	2
		2002.. 138 010	4 682 239	106 761	210 272	3 108 532	11 041 957	7 785 471	18 793 208	X	X
33281	Coating, engraving, heat treating, and allied activities .....	2003.. 127 594	4 428 084	99 166	201 566	2 964 153	10 355 507	7 874 006	18 271 178	2	2
		2002.. 138 010	4 682 239	106 761	210 272	3 108 532	11 041 957	7 785 471	18 793 208	X	X
33281M	Coating, engraving, heat treating, and allied activities .....	2003.. 127 594	4 428 084	99 166	201 566	2 964 153	10 355 507	7 874 006	18 271 178	2	2
		2002.. 138 010	4 682 239	106 761	210 272	3 108 532	11 041 957	7 785 471	18 793 208	X	X
3329	Other fabricated metal product manufacturing .....	2003.. 266 272	10 543 030	193 771	390 582	6 432 215	30 560 800	20 383 887	51 075 924	1	1
		2002.. 282 859	10 867 550	205 226	406 793	6 668 307	29 626 144	20 770 659	50 514 178	X	X
33291	Metal valve manufacturing .....	2003.. 101 269	4 172 830	69 463	141 002	2 343 241	12 650 781	8 652 496	21 325 304	1	1
		2002.. 109 265	4 307 067	75 063	150 160	2 436 040	12 409 954	8 978 817	21 475 792	X	X
332913	Plumbing fixture fitting and trim manufacturing .....	2003.. 12 444	464 358	9 341	18 932	285 650	1 679 701	1 732 996	3 398 765	1	2
		2002.. 13 961	480 264	10 463	21 058	298 367	1 754 278	1 743 989	3 526 844	X	X
33291N	Valve and fitting (except plumbing) manufacturing .....	2003.. 88 825	3 708 472	60 122	122 070	2 057 591	10 971 080	6 919 499	17 926 539	1	1
		2002.. 95 304	3 826 803	64 600	129 102	2 137 673	10 655 676	7 234 828	17 948 948	X	X
33299	All other fabricated metal product manufacturing .....	2003.. 165 003	6 370 200	124 308	249 580	4 088 974	17 910 019	11 731 392	29 750 620	1	1
		2002.. 173 594	6 560 483	130 163	256 633	4 232 267	17 216 190	11 791 842	29 038 386	X	X
332991	Ball and roller bearing manufacturing .....	2003.. 27 197	1 091 662	22 427	44 306	820 904	3 629 423	2 000 341	5 677 611	1	1
		2002.. 29 058	1 198 738	23 972	47 553	905 865	3 491 213	2 176 860	5 702 490	X	X
332992	Small arms ammunition manufacturing .....	2003.. 6 956	296 795	5 491	11 718	209 535	834 088	371 339	1 203 170	1	1
		2002.. 6 740	269 205	5 244	10 962	194 921	756 249	387 578	1 099 908	X	X
332993	Ammunition (except small arms) manufacturing .....	2003.. 6 750	303 690	3 578	7 119	119 098	757 240	424 559	1 159 264	1	1
		2002.. 6 925	299 663	3 740	6 756	118 371	839 467	347 690	1 190 077	X	X
332994	Small arms manufacturing .....	2003.. 11 015	437 268	8 160	16 120	251 857	1 368 632	563 889	2 045 082	1	1
		2002.. 9 956	398 256	7 576	15 249	238 753	1 105 868	442 992	1 561 055	X	X
332995	Other ordnance and accessories manufacturing .....	2003.. 4 308	259 958	1 900	3 694	76 941	995 932	537 014	1 492 984	1	1
		2002.. 5 116	287 922	2 035	4 071	81 920	807 797	433 456	1 215 210	X	X
332996	Fabricated pipe and pipe fitting manufacturing .....	2003.. 23 630	818 465	18 199	37 999	540 126	1 912 033	1 682 388	3 611 050	4	4
		2002.. 26 143	880 088	20 196	39 504	586 315	2 071 623	1 722 052	3 814 818	X	X
33299N	Other fabricated metal products manufacturing .....	2003.. 85 145	3 162 364	64 554	128 624	2 070 512	8 412 672	6 151 862	14 561 459	2	2
		2002.. 89 656	3 226 611	67 400	132 538	2 106 122	8 143 973	6 281 214	14 454 828	X	X
333	Machinery manufacturing .....	2003.. 1 101 146	48 123 027	694 850	1 396 780	24 728 312	126 232 231	126 841 862	253 673 036	1	1
		2002.. 1 174 204	49 830 844	735 933	1 438 885	25 429 438	128 884 127	123 065 948	253 135 046	X	X
3331	Agriculture, construction, and mining machinery manufacturing .....	2003.. 168 957	6 927 976	112 812	227 506	3 946 870	20 920 644	30 345 086	51 385 651	1	1
		2002.. 170 930	7 025 097	114 447	226 697	3 959 332	20 564 492	27 324 636	48 232 065	X	X
33311	Agricultural implement manufacturing .....	2003.. 77 352	2 814 848	55 146	107 698	1 720 078	10 109 562	13 531 838	23 620 032	2	2
		2002.. 76 212	2 778 645	55 524	109 749	1 716 734	9 293 516	12 106 526	21 527 489	X	X
333111	Farm machinery and equipment manufacturing .....	2003.. 54 753	2 110 367	36 816	71 748	1 247 992	7 383 840	8 065 064	15 554 549	3	2
		2002.. 54 177	2 098 566	37 917	74 124	1 272 814	6 945 825	7 703 365	14 690 507	X	X
333112	Lawn and garden tractor and home lawn and garden equipment manufacturing .....	2003.. 22 599	704 480	18 330	35 950	472 085	2 725 722	5 466 773	8 065 483	1	2
		2002.. 22 035	680 079	17 607	35 625	443 920	2 347 691	4 403 161	6 836 982	X	X

See footnotes at end of table.



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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments <sup>3</sup> (\$1,000)	Relative standard error of estimate <sup>4</sup> (percent) for column—			
		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F		
												A	B
333	Machinery manufacturing—Con.												
3331	Agriculture, construction, and mining machinery manufacturing—Con.												
33312	Construction machinery manufacturing .....	2003.. 54 160	2 348 915	34 022	69 981	1 351 153	7 424 182	12 643 980	20 179 785	2	2		
		2002.. 57 335	2 534 167	36 175	70 895	1 386 810	7 658 263	11 312 957	19 252 984	X	X		
333120	Construction machinery manufacturing .....	2003.. 54 160	2 348 915	34 022	69 981	1 351 153	7 424 182	12 643 980	20 179 785	2	2		
		2002.. 57 335	2 534 167	36 175	70 895	1 386 810	7 658 263	11 312 957	19 252 984	X	X		
33313	Mining and oil and gas field machinery manufacturing .....	2003.. 37 444	1 764 213	23 645	49 826	875 639	3 386 899	4 169 268	7 585 834	4	4		
		2002.. 37 383	1 712 285	22 748	46 053	855 788	3 612 713	3 905 153	7 451 592	X	X		
33313M	Mining and oil and gas field machinery manufacturing .....	2003.. 37 444	1 764 213	23 645	49 826	875 639	3 386 899	4 169 268	7 585 834	4	4		
		2002.. 37 383	1 712 285	22 748	46 053	855 788	3 612 713	3 905 153	7 451 592	X	X		
3332	Industrial machinery manufacturing .....	2003.. 144 305	7 270 232	73 526	140 453	2 811 953	15 155 883	13 593 187	28 965 153	1	1		
		2002.. 159 375	7 761 835	79 755	150 979	2 948 537	15 835 784	14 125 688	30 216 244	X	X		
33321	Sawmill and woodworking machinery manufacturing .....	2003.. 6 896	273 104	4 138	8 274	132 783	615 361	460 235	1 077 366	3	3		
		2002.. 7 135	272 909	4 357	8 496	135 431	559 821	489 659	1 074 527	X	X		
333210	Sawmill and woodworking machinery manufacturing .....	2003.. 6 896	273 104	4 138	8 274	132 783	615 361	460 235	1 077 366	3	3		
		2002.. 7 135	272 909	4 357	8 496	135 431	559 821	489 659	1 074 527	X	X		
33322	Plastics and rubber industry machinery manufacturing .....	2003.. 14 758	703 413	8 083	15 987	295 588	1 542 905	1 361 916	2 903 045	3	2		
		2002.. 16 544	747 061	9 015	17 482	319 256	1 545 264	1 459 835	3 061 114	X	X		
333220	Plastics and rubber industry machinery manufacturing .....	2003.. 14 758	703 413	8 083	15 987	295 588	1 542 905	1 361 916	2 903 045	3	2		
		2002.. 16 544	747 061	9 015	17 482	319 256	1 545 264	1 459 835	3 061 114	X	X		
33329	Other industrial machinery manufacturing .....	2003.. 122 661	6 293 715	61 305	116 193	2 383 583	12 997 617	11 771 035	24 984 743	1	1		
		2002.. 135 696	6 741 865	66 383	125 001	2 493 850	13 730 699	12 176 194	26 080 603	X	X		
333295	Semiconductor machinery manufacturing .....	2003.. 35 553	2 158 281	12 865	21 379	594 429	4 252 139	4 096 097	8 536 334	1	2		
		2002.. 39 195	2 402 984	13 998	23 760	625 448	4 638 850	4 603 368	9 332 710	X	X		
33329N	Other machinery manufacturing .....	2003.. 87 108	4 135 434	48 441	94 814	1 789 154	8 745 478	7 674 938	16 448 408	1	1		
		2002.. 96 501	4 338 881	52 385	101 241	1 868 402	9 091 849	7 572 826	16 747 893	X	X		
3333	Commercial and service industry machinery manufacturing .....	2003.. 96 008	4 128 985	54 376	109 146	1 762 801	11 632 897	9 275 670	20 902 435	1	1		
		2002.. 103 773	4 312 291	58 406	114 689	1 830 589	11 690 387	9 779 564	21 431 209	X	X		
33331	Commercial and service industry machinery manufacturing .....	2003.. 96 008	4 128 985	54 376	109 146	1 762 801	11 632 897	9 275 670	20 902 435	1	1		
		2002.. 103 773	4 312 291	58 406	114 689	1 830 589	11 690 387	9 779 564	21 431 209	X	X		
333313	Office machinery manufacturing .....	2003.. 7 137	335 328	3 035	5 637	87 268	1 071 832	877 938	1 953 962	2	3		
		2002.. 10 206	451 707	3 933	7 282	127 152	1 441 957	1 106 895	2 567 597	X	X		
333314	Optical instrument and lens manufacturing .....	2003.. 19 281	911 663	10 525	22 233	432 375	1 965 993	1 239 431	3 247 739	3	4		
		2002.. 19 262	895 416	10 720	22 498	407 319	1 932 563	1 179 433	3 102 159	X	X		
333315	Photographic and photocopying equipment manufacturing .....	2003.. 8 566	365 077	4 908	9 451	155 053	1 291 360	1 080 227	2 346 464	3	6		
		2002.. 9 809	403 666	5 601	9 911	168 240	1 071 891	1 122 504	2 193 037	X	X		
33331N	All other commercial and service industry machinery manufacturing .....	2003.. 61 025	2 516 918	35 908	71 825	1 088 104	7 303 712	6 078 074	13 354 270	2	2		
		2002.. 64 496	2 561 502	38 152	74 998	1 127 878	7 243 976	6 370 732	13 568 416	X	X		
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	2003.. 147 797	5 301 875	106 727	211 828	3 138 276	16 542 804	15 682 137	32 084 193	1	1		
		2002.. 154 371	5 372 031	111 361	216 351	3 168 120	16 366 302	15 387 365	32 011 827	X	X		
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	2003.. 147 797	5 301 875	106 727	211 828	3 138 276	16 542 804	15 682 137	32 084 193	1	1		
		2002.. 154 371	5 372 031	111 361	216 351	3 168 120	16 366 302	15 387 365	32 011 827	X	X		
333414	Heating equipment (except warm air furnaces) manufacturing .....	2003.. 20 324	739 389	13 097	26 764	367 514	2 396 611	1 701 465	4 166 523	2	2		
		2002.. 22 255	758 849	14 276	28 974	372 706	2 246 928	1 717 089	3 982 484	X	X		
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	2003.. 101 644	3 670 145	75 052	147 393	2 263 083	11 843 178	12 218 246	23 875 040	1	1		
		2002.. 104 907	3 698 417	77 800	149 336	2 282 598	11 869 993	11 845 934	23 943 281	X	X		
33341N	Ventilation equipment manufacturing .....	2003.. 25 830	892 341	18 578	37 670	507 679	2 303 015	1 762 426	4 042 630	2	2		
		2002.. 27 209	914 765	19 285	38 041	512 816	2 249 381	1 824 342	4 086 062	X	X		
3335	Metalworking machinery manufacturing .....	2003.. 174 260	7 950 453	120 833	249 207	4 901 687	15 436 834	8 830 394	24 465 809	1	1		
		2002.. 192 490	8 430 942	133 139	265 263	5 153 048	16 183 142	9 129 171	25 538 376	X	X		
33351	Metalworking machinery manufacturing .....	2003.. 174 260	7 950 453	120 833	249 207	4 901 687	15 436 834	8 830 394	24 465 809	1	1		
		2002.. 192 490	8 430 942	133 139	265 263	5 153 048	16 183 142	9 129 171	25 538 376	X	X		
333511	Industrial mold manufacturing .....	2003.. 42 077	1 910 355	32 159	65 882	1 326 473	3 647 925	1 573 588	5 282 250	1	3		
		2002.. 46 604	2 027 138	35 421	71 052	1 396 754	3 819 409	1 665 797	5 501 786	X	X		
333512	Machine tool (metal cutting types) manufacturing .....	2003.. 17 242	858 099	8 371	18 216	356 452	1 604 374	1 696 226	3 345 615	1	3		
		2002.. 18 261	907 724	9 722	19 195	381 287	1 612 038	1 714 361	3 409 747	X	X		

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
		A	B	C	D	E	F	G	H	A	F
333	Machinery manufacturing—Con.										
3335	Metalworking machinery manufacturing—Con.										
33351	Metalworking machinery manufacturing—Con.										
333513	Machine tool (metal forming types) manufacturing .....	2003.. 7 457	360 423	4 354	8 972	181 984	633 398	502 088	1 138 360	2	3
		2002.. 7 371	346 077	4 254	8 531	176 595	648 920	486 068	1 134 831	X	X
333514	Special die and tool, die set, jig, and fixture manufacturing .....	2003.. 55 469	2 573 243	41 414	86 093	1 763 593	4 793 009	2 179 165	7 035 438	2	2
		2002.. 60 568	2 645 213	44 548	88 757	1 769 524	4 818 561	2 164 273	6 984 950	X	X
333515	Cutting tool and machine tool accessory manufacturing .....	2003.. 36 854	1 477 139	25 753	51 553	894 715	3 127 089	1 565 484	4 711 347	1	2
		2002.. 40 240	1 562 565	28 009	54 281	962 115	3 437 487	1 621 314	5 093 704	X	X
333516	Rolling mill machinery and equipment manufacturing .....	2003.. 2 547	125 559	1 456	3 073	61 606	287 313	245 470	541 176	2	6
		2002.. 2 754	139 873	1 606	3 530	66 527	253 175	243 094	505 306	X	X
333518	Other metalworking machinery manufacturing .....	2003.. 12 613	645 636	7 327	15 417	316 864	1 343 727	1 068 373	2 411 623	3	3
		2002.. 16 692	802 352	9 579	19 917	400 246	1 593 552	1 234 264	2 908 052	X	X
3336	Engine, turbine, and power transmission equipment manufacturing .....	2003.. 87 820	4 184 299	61 971	123 692	2 478 071	17 240 540	21 102 256	38 642 657	1	1
		2002.. 97 199	4 355 284	66 282	129 851	2 554 459	18 940 159	19 361 872	38 435 743	X	X
33361	Engine, turbine, and power transmission equipment manufacturing .....	2003.. 87 820	4 184 299	61 971	123 692	2 478 071	17 240 540	21 102 256	38 642 657	1	1
		2002.. 97 199	4 355 284	66 282	129 851	2 554 459	18 940 159	19 361 872	38 435 743	X	X
333611	Turbine and turbine generator set unit manufacturing .....	2003.. 16 243	934 245	10 096	21 246	506 814	8 235 796	5 214 119	13 631 033	3	1
		2002.. 19 486	1 004 848	11 579	23 420	564 440	9 287 752	5 598 822	14 966 426	X	X
333612	Speed changer, industrial high-speed drive, and gear manufacturing .....	2003.. 12 346	521 779	8 577	16 420	300 489	1 190 963	784 905	1 969 980	1	2
		2002.. 13 237	547 444	9 200	17 608	327 774	1 260 881	761 649	2 036 388	X	X
333613	Mechanical power transmission equipment manufacturing .....	2003.. 15 682	649 997	11 124	21 712	371 895	1 666 619	1 021 318	2 687 454	2	2
		2002.. 16 395	657 830	11 547	23 462	402 077	1 651 382	1 110 378	2 781 377	X	X
333618	Other engine equipment manufacturing .....	2003.. 43 549	2 078 278	32 175	64 315	1 298 874	6 147 162	14 081 914	20 354 190	1	1
		2002.. 48 081	2 145 162	33 956	65 361	1 260 168	6 740 144	11 891 023	18 651 552	X	X
3339	Other general purpose machinery manufacturing .....	2003.. 281 999	12 359 208	164 604	334 948	5 688 654	29 302 628	28 013 133	57 227 138	1	1
		2002.. 296 066	12 573 364	172 543	335 055	5 815 353	29 303 861	27 957 652	57 269 582	X	X
33391	Pump and compressor manufacturing .....	2003.. 58 155	2 554 171	30 381	62 986	1 090 899	6 695 221	7 094 932	13 738 854	6	2
		2002.. 55 845	2 461 885	30 906	60 674	1 081 200	6 197 497	6 515 690	12 700 657	X	X
333911	Pump and pumping equipment manufacturing .....	2003.. 31 327	1 402 987	18 192	38 805	640 453	4 140 276	3 911 748	8 015 104	2	1
		2002.. 32 122	1 401 003	18 368	36 501	645 987	3 611 192	3 406 385	7 045 513	X	X
333912	Air and gas compressor manufacturing .....	2003.. 22 816	966 778	10 054	20 124	380 206	2 003 458	2 713 019	4 700 876	15	8
		2002.. 19 675	884 192	10 371	20 052	365 623	2 129 314	2 645 744	4 722 214	X	X
333913	Measuring and dispensing pump manufacturing .....	2003.. 4 012	184 407	2 135	4 057	70 241	551 488	470 165	1 022 875	2	1
		2002.. 4 048	176 690	2 167	4 121	69 590	456 991	463 561	932 930	X	X
33392	Material handling equipment manufacturing .....	2003.. 75 214	3 216 488	46 985	95 817	1 578 596	6 955 354	8 611 439	15 625 700	1	1
		2002.. 81 527	3 304 121	49 247	97 888	1 636 481	6 936 578	8 616 717	15 636 414	X	X
33392M	Material handling equipment manufacturing .....	2003.. 75 214	3 216 488	46 985	95 817	1 578 596	6 955 354	8 611 439	15 625 700	1	1
		2002.. 81 527	3 304 121	49 247	97 888	1 636 481	6 936 578	8 616 717	15 636 414	X	X
33399	All other general purpose machinery manufacturing .....	2003.. 148 630	6 588 548	87 238	176 146	3 019 159	15 652 053	12 306 763	27 862 585	1	1
		2002.. 158 694	6 807 358	92 390	176 493	3 097 672	16 169 786	12 825 245	28 932 511	X	X
333991	Power-driven hand tool manufacturing .....	2003.. 10 746	412 901	7 848	14 622	233 588	1 466 775	1 558 431	3 038 006	1	2
		2002.. 12 259	436 726	9 071	16 725	255 407	1 776 146	1 864 737	3 649 117	X	X
333993	Packaging machinery manufacturing .....	2003.. 23 808	1 131 196	12 017	24 541	448 760	2 441 185	1 674 553	4 089 893	3	4
		2002.. 24 681	1 166 188	11 800	23 736	452 557	2 437 502	1 756 333	4 214 369	X	X
333994	Industrial process furnace and oven manufacturing .....	2003.. 10 428	451 669	6 190	12 473	198 687	907 264	679 615	1 579 976	3	4
		2002.. 11 590	475 040	6 689	13 108	205 770	936 495	690 137	1 636 340	X	X
33399N	Fluid power equipment manufacturing .....	2003.. 30 919	1 364 157	19 916	42 145	727 160	3 278 029	2 533 455	5 831 208	1	1
		2002.. 32 009	1 369 308	20 523	40 727	730 759	3 202 337	2 439 547	5 668 932	X	X
33399P	All other miscellaneous general purpose machinery manufacturing .....	2003.. 72 729	3 228 625	41 267	82 365	1 410 964	7 558 800	5 860 709	13 323 511	1	1
		2002.. 78 155	3 360 096	44 307	82 197	1 453 179	7 817 306	6 074 491	13 763 753	X	X
334	Computer and electronic product manufacturing .....	2003.. 1 162 971	63 097 258	539 564	1 080 421	19 669 213	203 513 509	151 033 787	353 665 450	1	1
		2002.. 1 261 226	64 434 772	592 511	1 159 076	21 016 397	201 305 628	154 409 129	358 257 888	X	X
3341	Computer and peripheral equipment manufacturing .....	2003.. 142 248	8 529 051	42 414	82 709	1 749 290	30 488 949	38 106 322	68 768 295	1	1
		2002.. 150 143	8 238 221	49 152	96 142	1 902 460	34 339 611	39 047 007	73 552 002	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
334	Computer and electronic product manufacturing—Con.										
3341	Computer and peripheral equipment manufacturing—Con.										
33411	Computer and peripheral equipment manufacturing .....	2003.. 142 248	8 529 051	42 414	82 709	1 749 290	30 488 949	38 106 322	68 768 295	1	1
		2002.. 150 143	8 238 221	49 152	96 142	1 902 460	34 339 611	39 047 007	73 552 002	X	X
334111	Electronic computer manufacturing .....	2003.. 66 322	4 016 943	15 642	30 074	701 436	19 734 724	25 813 915	45 617 503	1	1
		2002.. 62 272	3 275 912	18 433	36 845	743 018	20 950 345	26 597 070	47 434 275	X	X
334112	Computer storage device manufacturing .....	2003.. 19 929	1 320 088	9 345	19 599	343 150	3 559 550	4 748 466	8 408 321	1	2
		2002.. 26 308	1 590 038	10 054	20 299	371 313	4 727 099	4 738 695	9 423 055	X	X
334113	Computer terminal manufacturing .....	2003.. 2 020	95 478	875	1 740	28 899	192 128	152 970	356 578	2	4
		2002.. 1 949	85 994	969	1 916	30 590	240 072	168 990	413 433	X	X
334119	Other computer peripheral equipment manufacturing .....	2003.. 53 977	3 096 541	16 552	31 297	675 806	7 002 548	7 390 970	14 385 893	2	3
		2002.. 59 614	3 286 277	19 696	37 082	757 539	8 422 095	7 542 252	15 981 239	X	X
3342	Communications equipment manufacturing .....	2003.. 163 524	9 248 950	62 184	116 493	2 062 388	30 557 407	30 202 738	60 505 898	3	1
		2002.. 190 578	10 298 014	71 747	135 990	2 563 090	32 373 857	32 084 578	64 965 993	X	X
33421	Telephone apparatus manufacturing .....	2003.. 45 935	2 986 639	12 984	26 936	525 807	13 124 567	8 406 267	21 444 180	5	2
		2002.. 64 455	3 742 129	18 585	35 200	726 614	14 555 672	11 726 465	27 273 739	X	X
334210	Telephone apparatus manufacturing .....	2003.. 45 935	2 986 639	12 984	26 936	525 807	13 124 567	8 406 267	21 444 180	5	2
		2002.. 64 455	3 742 129	18 585	35 200	726 614	14 555 672	11 726 465	27 273 739	X	X
33422	Radio and television broadcasting and wireless communications equipment manufacturing .....	2003.. 95 100	5 251 303	39 543	70 018	1 244 247	14 651 543	19 681 678	34 153 678	4	2
		2002.. 100 556	5 408 717	41 722	78 758	1 499 470	14 564 603	18 050 296	32 169 112	X	X
334220	Radio and television broadcasting and wireless communications equipment manufacturing .....	2003.. 95 100	5 251 303	39 543	70 018	1 244 247	14 651 543	19 681 678	34 153 678	4	2
		2002.. 100 556	5 408 717	41 722	78 758	1 499 470	14 564 603	18 050 296	32 169 112	X	X
33429	Other communications equipment manufacturing .....	2003.. 22 489	1 011 007	9 658	19 539	292 334	2 781 297	2 114 793	4 908 039	1	1
		2002.. 25 567	1 147 168	11 440	22 032	337 006	3 253 582	2 307 817	5 523 142	X	X
334290	Other communications equipment manufacturing .....	2003.. 22 489	1 011 007	9 658	19 539	292 334	2 781 297	2 114 793	4 908 039	1	1
		2002.. 25 567	1 147 168	11 440	22 032	337 006	3 253 582	2 307 817	5 523 142	X	X
3343	Audio and video equipment manufacturing .....	2003.. 25 010	996 383	14 823	29 886	390 396	3 193 477	5 450 912	8 647 791	1	4
		2002.. 25 576	974 273	15 622	30 400	397 534	3 490 542	5 368 597	8 862 262	X	X
33431	Audio and video equipment manufacturing .....	2003.. 25 010	996 383	14 823	29 886	390 396	3 193 477	5 450 912	8 647 791	1	4
		2002.. 25 576	974 273	15 622	30 400	397 534	3 490 542	5 368 597	8 862 262	X	X
334310	Audio and video equipment manufacturing .....	2003.. 25 010	996 383	14 823	29 886	390 396	3 193 477	5 450 912	8 647 791	1	4
		2002.. 25 576	974 273	15 622	30 400	397 534	3 490 542	5 368 597	8 862 262	X	X
3344	Semiconductor and other electronic component manufacturing .....	2003.. 388 741	18 613 856	231 215	475 790	8 144 698	72 776 299	40 571 867	113 206 159	1	1
		2002.. 437 198	19 893 619	258 011	511 692	8 707 137	69 223 805	40 565 244	110 385 262	X	X
33441	Semiconductor and other electronic component manufacturing .....	2003.. 388 741	18 613 856	231 215	475 790	8 144 698	72 776 299	40 571 867	113 206 159	1	1
		2002.. 437 198	19 893 619	258 011	511 692	8 707 137	69 223 805	40 565 244	110 385 262	X	X
334411	Electron tube manufacturing .....	2003.. 9 163	381 560	6 956	13 427	261 784	769 618	989 289	1 759 052	1	1
		2002.. 11 341	480 215	8 830	18 612	335 867	899 804	1 502 391	2 428 753	X	X
334412	Bare printed circuit board manufacturing .....	2003.. 41 241	1 476 246	29 447	59 223	864 177	3 373 212	2 403 193	5 757 459	3	2
		2002.. 46 962	1 660 002	33 104	65 066	938 379	3 542 278	2 881 599	6 431 054	X	X
334413	Semiconductor and related device manufacturing .....	2003.. 149 960	9 234 011	77 959	160 564	3 619 115	49 122 270	17 678 929	66 643 575	1	1
		2002.. 169 134	9 804 385	87 355	171 347	3 873 317	44 798 048	16 544 487	61 447 302	X	X
334414	Electronic capacitor manufacturing .....	2003.. 9 075	322 514	6 362	13 355	178 504	644 563	626 803	1 295 582	4	8
		2002.. 10 937	383 510	7 272	14 602	185 762	734 069	839 200	1 640 150	X	X
334415	Electronic resistor manufacturing .....	2003.. 6 534	205 274	4 803	8 105	114 592	469 122	248 348	721 008	13	3
		2002.. 5 518	176 212	3 757	7 165	90 337	403 382	219 659	642 747	X	X
334416	Electronic coil, transformer, and other inductor manufacturing .....	2003.. 11 487	348 302	8 680	17 276	198 134	731 978	467 170	1 199 272	4	3
		2002.. 11 386	332 933	8 302	15 881	181 208	671 941	492 760	1 171 426	X	X
334417	Electronic connector manufacturing .....	2003.. 22 921	899 742	16 393	33 960	525 547	2 479 665	1 242 078	3 746 957	1	2
		2002.. 24 825	929 057	17 628	34 735	536 294	2 274 639	1 294 349	3 619 677	X	X
334418	Printed circuit assembly (electronic assembly) manufacturing .....	2003.. 76 357	3 373 421	42 817	93 114	1 296 849	9 908 422	13 290 356	23 164 496	2	3
		2002.. 86 593	3 480 238	48 770	99 833	1 372 358	10 204 119	12 924 231	23 358 200	X	X
334419	Other electronic component manufacturing .....	2003.. 62 004	2 372 787	37 798	76 765	1 085 997	5 277 448	3 625 702	8 918 759	1	2
		2002.. 70 502	2 647 067	42 993	84 451	1 193 615	5 695 525	3 866 568	9 645 953	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
334	Computer and electronic product manufacturing—Con.										
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	2003.. 406 756	24 306 491	161 869	316 528	6 445 262	62 283 085	33 949 858	95 559 525	1	1
		2002.. 418 898	23 633 741	169 419	326 968	6 577 100	57 218 592	34 474 677	92 938 094	X	X
33451	Navigational, measuring, medical, and control instruments manufacturing .....	2003.. 406 756	24 306 491	161 869	316 528	6 445 262	62 283 085	33 949 858	95 559 525	1	1
		2002.. 418 898	23 633 741	169 419	326 968	6 577 100	57 218 592	34 474 677	92 938 094	X	X
334510	Electromedical and electrotherapeutic apparatus manufacturing .....	2003.. 58 384	3 315 505	27 243	54 745	1 043 451	11 144 320	5 604 407	16 755 058	1	1
		2002.. 59 223	3 160 193	27 739	55 792	985 799	10 145 886	5 691 782	15 932 139	X	X
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	2003.. 151 284	10 095 439	47 992	90 295	2 334 307	24 453 298	10 568 118	34 211 948	1	1
		2002.. 143 325	9 172 385	47 634	88 113	2 223 203	21 134 333	10 160 975	32 227 027	X	X
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use .....	2003.. 18 034	677 749	11 547	23 128	329 830	2 025 994	1 196 212	3 234 536	2	1
		2002.. 18 166	680 846	11 657	22 880	329 521	1 916 030	1 214 859	3 168 544	X	X
334513	Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables .....	2003.. 35 961	1 732 220	16 790	33 653	552 243	3 999 199	2 480 012	6 493 270	2	1
		2002.. 39 790	1 879 133	18 067	35 684	601 412	4 285 438	2 672 711	7 033 461	X	X
334514	Totalizing fluid meter and counting device manufacturing ...	2003.. 15 097	666 258	8 902	16 964	332 086	1 986 764	2 569 882	4 606 069	5	2
		2002.. 16 542	734 619	10 538	19 585	384 832	1 970 687	2 853 099	4 821 321	X	X
334515	Instrument manufacturing for measuring and testing electricity and electrical signals .....	2003.. 47 929	3 116 577	16 867	31 317	637 103	6 427 064	3 516 028	9 998 002	2	1
		2002.. 57 117	3 367 648	19 436	38 509	810 958	6 145 190	3 715 300	10 060 484	X	X
334516	Analytical laboratory instrument manufacturing .....	2003.. 33 567	2 084 899	11 407	22 563	427 196	5 983 480	3 177 295	9 155 193	1	2
		2002.. 34 010	2 000 851	11 509	22 412	430 327	5 102 113	3 277 390	8 323 446	X	X
334517	Irradiation apparatus manufacturing .....	2003.. 12 704	904 482	4 721	11 507	212 379	2 291 065	2 337 524	4 631 396	1	1
		2002.. 13 353	821 993	4 469	9 016	189 754	2 516 308	2 294 012	4 736 157	X	X
334518	Watch, clock, and parts manufacturing .....	2003.. 2 793	102 319	1 823	3 720	49 603	360 273	238 822	601 153	5	4
		2002.. 3 570	126 034	2 393	4 747	63 413	418 579	288 308	699 134	X	X
334519	Other measuring and controlling device manufacturing .....	2003.. 31 003	1 611 044	14 578	28 636	527 064	3 611 628	2 261 557	5 872 900	2	2
		2002.. 33 802	1 690 039	15 977	30 230	557 881	3 584 028	2 306 241	5 936 381	X	X
3346	Manufacturing and reproducing magnetic and optical media .....	2003.. 36 691	1 402 526	27 060	59 015	877 180	4 214 292	2 752 089	6 977 782	2	2
		2002.. 38 833	1 396 904	28 560	57 884	869 076	4 659 221	2 869 026	7 554 275	X	X
33461	Manufacturing and reproducing magnetic and optical media .....	2003.. 36 691	1 402 526	27 060	59 015	877 180	4 214 292	2 752 089	6 977 782	2	2
		2002.. 38 833	1 396 904	28 560	57 884	869 076	4 659 221	2 869 026	7 554 275	X	X
334611	Software reproducing .....	2003.. 2 553	105 059	2 156	3 946	74 832	274 745	169 783	444 430	12	12
		2002.. 2 721	117 329	1 811	3 214	62 743	283 688	176 213	460 089	X	X
334612	Prerecorded compact disc (except software), tape, and record reproducing .....	2003.. 27 039	902 150	20 168	42 874	577 616	2 620 079	1 461 262	4 076 907	2	3
		2002.. 29 438	985 530	22 119	44 709	631 700	2 897 388	1 610 074	4 502 758	X	X
334613	Magnetic and optical recording media manufacturing .....	2003.. 7 099	395 317	4 736	12 195	224 732	1 319 468	1 121 044	2 456 445	2	2
		2002.. 6 674	294 045	4 630	9 961	174 633	1 478 145	1 082 739	2 591 428	X	X
335	Electrical equipment, appliance, and component manufacturing .....	2003.. 453 299	17 265 769	320 890	633 457	9 777 838	52 297 727	49 388 153	101 770 560	1	1
		2002.. 494 722	18 085 414	352 091	683 904	10 368 373	53 987 198	50 137 938	104 472 373	X	X
3351	Electric lighting equipment manufacturing .....	2003.. 59 971	2 150 492	42 685	85 769	1 228 958	6 725 675	5 195 393	11 897 333	2	2
		2002.. 66 367	2 261 963	47 673	94 436	1 316 507	7 100 304	5 309 828	12 396 049	X	X
33511	Electric lamp bulb and parts manufacturing .....	2003.. 10 987	489 528	9 158	17 967	371 436	1 726 594	942 434	2 645 751	1	1
		2002.. 11 476	486 257	9 538	18 659	377 803	1 747 297	883 339	2 615 556	X	X
335110	Electric lamp bulb and parts manufacturing .....	2003.. 10 987	489 528	9 158	17 967	371 436	1 726 594	942 434	2 645 751	1	1
		2002.. 11 476	486 257	9 538	18 659	377 803	1 747 297	883 339	2 615 556	X	X
33512	Lighting fixture manufacturing .....	2003.. 48 984	1 660 964	33 527	67 803	857 523	4 999 081	4 252 959	9 251 582	2	2
		2002.. 54 891	1 775 706	38 135	75 777	938 704	5 353 007	4 426 489	9 780 493	X	X
33512M	Lighting fixture manufacturing .....	2003.. 48 984	1 660 964	33 527	67 803	857 523	4 999 081	4 252 959	9 251 582	2	2
		2002.. 54 891	1 775 706	38 135	75 777	938 704	5 353 007	4 426 489	9 780 493	X	X
3352	Household appliance manufacturing ...	2003.. 84 286	2 862 279	70 218	132 583	2 099 269	10 667 323	13 100 787	23 813 215	1	1
		2002.. 89 231	3 016 482	73 879	140 142	2 184 181	10 429 484	12 423 105	22 882 835	X	X
33521	Small electrical appliance manufacturing .....	2003.. 17 567	586 793	13 330	24 590	352 202	2 195 964	2 341 125	4 531 798	1	2
		2002.. 19 855	644 936	15 063	27 543	387 205	2 704 989	2 289 043	4 956 444	X	X
33521M	Small electrical appliance manufacturing .....	2003.. 17 567	586 793	13 330	24 590	352 202	2 195 964	2 341 125	4 531 798	1	2
		2002.. 19 855	644 936	15 063	27 543	387 205	2 704 989	2 289 043	4 956 444	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
335	Electrical equipment, appliance, and component manufacturing—Con.										
3352	Household appliance manufacturing—Con.										
33522	Major appliance manufacturing.....	2003.. 66 719	2 275 486	56 888	107 993	1 747 068	8 471 359	10 759 662	19 281 417	1	1
		2002.. 69 376	2 371 546	58 816	112 599	1 796 976	7 724 495	10 134 062	17 926 391	X	X
335221	Household cooking appliance manufacturing .....	2003.. 15 001	434 271	12 604	23 707	311 551	1 642 117	2 929 011	4 615 429	3	2
		2002.. 17 163	477 744	14 080	25 972	332 989	1 528 776	2 737 084	4 251 053	X	X
335222	Household refrigerator and home freezer manufacturing .....	2003.. 23 439	801 975	20 665	38 329	658 279	2 613 078	3 267 774	5 901 399	1	1
		2002.. 23 487	814 868	20 530	38 486	659 026	2 222 439	3 223 985	5 491 267	X	X
335224	Household laundry equipment manufacturing .....	2003.. 15 665	576 425	13 280	25 271	439 665	2 247 790	2 642 695	4 902 400	1	1
		2002.. 16 034	621 980	13 605	26 224	457 858	2 047 850	2 494 332	4 576 269	X	X
335228	Other major household appliance manufacturing .....	2003.. 12 614	462 815	10 340	20 686	337 573	1 968 374	1 920 181	3 862 189	2	1
		2002.. 12 692	456 954	10 601	21 917	347 103	1 925 430	1 678 661	3 607 802	X	X
3353	Electrical equipment manufacturing....	2003.. 149 469	5 904 379	98 746	194 603	2 996 070	16 476 420	14 163 913	30 611 317	1	1
		2002.. 162 424	6 149 339	108 980	207 700	3 202 640	16 875 986	14 719 591	31 773 606	X	X
33531	Electrical equipment manufacturing .....	2003.. 149 469	5 904 379	98 746	194 603	2 996 070	16 476 420	14 163 913	30 611 317	1	1
		2002.. 162 424	6 149 339	108 980	207 700	3 202 640	16 875 986	14 719 591	31 773 606	X	X
335311	Power, distribution, and specialty transformer manufacturing .....	2003.. 21 232	776 450	15 387	29 743	443 693	2 323 383	2 074 990	4 421 559	1	1
		2002.. 22 071	817 477	15 803	29 265	477 435	2 366 279	2 094 162	4 494 293	X	X
335312	Motor and generator manufacturing .....	2003.. 48 752	1 709 975	35 848	72 325	1 092 411	4 786 102	4 476 044	9 212 425	1	3
		2002.. 54 377	1 818 473	40 955	78 940	1 162 782	4 764 268	4 282 360	9 113 410	X	X
335313	Switchgear and switchboard apparatus manufacturing .....	2003.. 35 023	1 435 419	24 357	48 349	818 965	4 337 042	3 483 256	7 824 674	1	1
		2002.. 38 197	1 486 599	26 686	52 812	854 404	4 428 809	3 701 621	8 166 912	X	X
335314	Relay and industrial control manufacturing .....	2003.. 44 463	1 982 534	23 154	44 186	641 001	5 029 893	4 129 624	9 152 659	2	1
		2002.. 47 779	2 026 790	25 536	46 683	708 019	5 316 630	4 641 448	9 998 991	X	X
3359	Other electrical equipment and component manufacturing .....	2003.. 159 572	6 348 620	109 242	220 502	3 453 540	18 428 310	16 928 059	35 448 696	1	1
		2002.. 176 700	6 657 630	121 559	241 626	3 665 045	19 581 424	17 685 414	37 419 883	X	X
33591	Battery manufacturing .....	2003.. 25 041	975 590	19 110	39 356	640 109	3 058 393	3 104 436	6 175 714	2	2
		2002.. 26 330	979 936	20 318	41 469	665 594	3 239 358	3 122 021	6 385 998	X	X
335911	Storage battery manufacturing .....	2003.. 16 623	648 955	12 630	26 814	427 456	1 517 015	1 891 540	3 403 626	1	3
		2002.. 17 877	669 809	13 665	27 921	451 675	1 516 213	1 979 191	3 517 468	X	X
335912	Primary battery manufacturing .....	2003.. 8 418	326 635	6 480	12 542	212 652	1 541 378	1 212 897	2 772 088	4	2
		2002.. 8 453	310 127	6 653	13 548	213 919	1 723 145	1 142 830	2 868 530	X	X
33592	Communication and energy wire and cable manufacturing .....	2003.. 39 425	1 543 975	27 901	56 889	913 016	4 357 222	6 012 279	10 418 493	1	2
		2002.. 46 274	1 719 267	32 348	64 575	1 001 171	4 700 453	6 574 893	11 366 006	X	X
33592M	Communication and energy wire and cable manufacturing .....	2003.. 39 425	1 543 975	27 901	56 889	913 016	4 357 222	6 012 279	10 418 493	1	2
		2002.. 46 274	1 719 267	32 348	64 575	1 001 171	4 700 453	6 574 893	11 366 006	X	X
33593	Wiring device manufacturing .....	2003.. 50 358	1 878 632	34 848	68 118	1 057 994	6 160 663	3 943 723	10 156 108	1	1
		2002.. 54 659	1 977 575	38 235	73 620	1 108 208	6 537 512	4 135 250	10 704 425	X	X
33593M	Wiring device manufacturing .....	2003.. 50 358	1 878 632	34 848	68 118	1 057 994	6 160 663	3 943 723	10 156 108	1	1
		2002.. 54 659	1 977 575	38 235	73 620	1 108 208	6 537 512	4 135 250	10 704 425	X	X
33599	All other electrical equipment and component manufacturing .....	2003.. 44 749	1 950 422	27 383	56 139	842 421	4 852 031	3 867 622	8 698 381	4	2
		2002.. 49 437	1 980 852	30 658	61 962	890 072	5 104 101	3 853 250	8 963 454	X	X
335991	Carbon and graphite product manufacturing .....	2003.. 7 901	326 987	5 835	12 361	198 751	927 403	750 834	1 693 791	2	2
		2002.. 8 573	345 852	6 325	13 435	215 773	932 910	811 685	1 756 242	X	X
335999	All other miscellaneous electrical equipment and component manufacturing .....	2003.. 36 848	1 623 435	21 547	43 778	643 670	3 924 628	3 116 788	7 004 590	5	2
		2002.. 40 864	1 635 000	24 333	48 527	674 299	4 171 191	3 041 565	7 207 212	X	X
336	Transportation equipment manufacturing .....	2003.. 1 580 898	80 994 414	1 142 145	2 332 852	53 084 049	258 539 566	393 899 242	653 489 430	1	1
		2002.. 1 679 942	82 233 817	1 217 926	2 409 632	54 110 003	253 279 954	383 867 889	637 675 482	X	X
3361	Motor vehicle manufacturing .....	2003.. 209 537	14 191 937	184 149	363 828	12 168 415	78 235 828	181 571 502	259 577 884	1	1
		2002.. 223 031	14 177 385	194 726	385 286	12 234 614	72 155 432	169 039 426	241 277 907	X	X
33611	Automobile and light duty motor vehicle manufacturing .....	2003.. 183 033	13 059 744	163 554	326 564	11 398 815	75 725 781	168 082 893	243 655 616	1	1
		2002.. 193 202	12 948 504	172 018	343 162	11 374 067	69 098 164	156 029 502	225 177 238	X	X
336111	Automobile manufacturing .....	2003.. 74 366	5 067 732	64 243	122 513	4 315 236	21 888 185	63 294 238	85 117 980	1	1
		2002.. 80 530	5 126 381	70 055	134 061	4 394 275	28 490 257	59 641 868	88 107 606	X	X
336112	Light truck and utility vehicle manufacturing .....	2003.. 108 667	7 992 012	99 311	204 051	7 083 579	53 837 596	104 788 655	158 537 636	1	1
		2002.. 112 672	7 822 123	101 963	209 101	6 979 792	50 607 907	96 387 634	137 069 632	X	X
33612	Heavy duty truck manufacturing .....	2003.. 26 504	1 132 193	20 594	37 264	769 600	2 510 047	13 488 609	15 922 268	1	1
		2002.. 29 829	1 228 881	22 708	42 124	860 547	3 057 268	13 009 924	16 100 669	X	X
336120	Heavy duty truck manufacturing .....	2003.. 26 504	1 132 193	20 594	37 264	769 600	2 510 047	13 488 609	15 922 268	1	1
		2002.. 29 829	1 228 881	22 708	42 124	860 547	3 057 268	13 009 924	16 100 669	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
336	Transportation equipment manufacturing—Con.										
3362	Motor vehicle body and trailer manufacturing .....	2003.. 127 420	4 332 683	101 985	201 659	3 047 958	9 468 569	16 410 086	25 851 663	1	1
		2002.. 127 082	4 191 764	100 139	194 133	2 882 471	8 736 307	15 685 922	24 364 255	X	X
33621	Motor vehicle body and trailer manufacturing .....	2003.. 127 420	4 332 683	101 985	201 659	3 047 958	9 468 569	16 410 086	25 851 663	1	1
		2002.. 127 082	4 191 764	100 139	194 133	2 882 471	8 736 307	15 685 922	24 364 255	X	X
336211	Motor vehicle body manufacturing .....	2003.. 40 391	1 450 839	30 785	62 239	963 419	3 269 410	5 357 537	8 564 536	2	2
		2002.. 41 238	1 420 101	30 952	61 173	936 302	2 738 247	5 287 321	8 023 502	X	X
336212	Truck trailer manufacturing .....	2003.. 23 716	773 800	19 623	40 028	573 184	1 625 828	2 758 392	4 395 935	2	3
		2002.. 23 589	723 974	18 967	36 676	515 809	1 480 277	2 508 261	3 985 498	X	X
336213	Motor home manufacturing .....	2003.. 21 775	757 968	18 019	31 947	539 223	1 863 745	4 316 059	6 162 769	1	2
		2002.. 20 776	726 182	16 092	31 535	501 387	1 892 266	3 800 905	5 670 656	X	X
336214	Travel trailer and camper manufacturing .....	2003.. 41 538	1 350 075	33 559	67 445	972 133	2 709 586	3 978 098	6 728 422	3	3
		2002.. 41 479	1 321 507	33 428	64 749	928 973	2 625 517	4 089 435	6 684 599	X	X
3363	Motor vehicle parts manufacturing .....	2003.. 670 465	31 400 726	524 893	1 101 414	22 786 056	84 233 916	116 487 658	200 491 033	1	1
		2002.. 730 183	32 220 456	581 951	1 150 406	23 729 715	86 702 136	118 314 220	204 587 203	X	X
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	2003.. 87 365	4 620 450	68 302	142 475	3 431 226	12 627 280	21 901 207	34 545 523	2	1
		2002.. 99 879	4 812 385	81 986	151 150	3 730 397	12 383 725	22 228 631	34 507 909	X	X
33631M	Motor vehicle gasoline engine and engine parts manufacturing .....	2003.. 87 365	4 620 450	68 302	142 475	3 431 226	12 627 280	21 901 207	34 545 523	2	1
		2002.. 99 879	4 812 385	81 986	151 150	3 730 397	12 383 725	22 228 631	34 507 909	X	X
33632	Motor vehicle electrical and electronic equipment manufacturing .....	2003.. 92 339	3 903 113	67 735	139 024	2 451 382	12 589 705	12 431 531	24 922 832	2	2
		2002.. 98 519	4 045 896	72 572	141 914	2 575 034	12 912 074	12 979 848	25 856 052	X	X
33632M	Motor vehicle electrical and electronic equipment manufacturing .....	2003.. 92 339	3 903 113	67 735	139 024	2 451 382	12 589 705	12 431 531	24 922 832	2	2
		2002.. 98 519	4 045 896	72 572	141 914	2 575 034	12 912 074	12 979 848	25 856 052	X	X
33633	Motor vehicle steering and suspension component (except spring) manufacturing .....	2003.. 39 696	1 917 837	31 609	70 284	1 439 864	4 945 566	5 737 846	10 640 675	3	2
		2002.. 41 783	2 045 377	33 289	68 957	1 492 554	4 984 666	5 526 106	10 493 720	X	X
336330	Motor vehicle steering and suspension component (except spring) manufacturing .....	2003.. 39 696	1 917 837	31 609	70 284	1 439 864	4 945 566	5 737 846	10 640 675	3	2
		2002.. 41 783	2 045 377	33 289	68 957	1 492 554	4 984 666	5 526 106	10 493 720	X	X
33634	Motor vehicle brake system manufacturing .....	2003.. 41 217	1 604 102	32 232	68 217	1 090 780	4 740 877	8 233 790	12 975 436	1	1
		2002.. 42 356	1 660 877	33 878	71 922	1 203 347	5 768 521	7 612 370	13 350 927	X	X
336340	Motor vehicle brake system manufacturing .....	2003.. 41 217	1 604 102	32 232	68 217	1 090 780	4 740 877	8 233 790	12 975 436	1	1
		2002.. 42 356	1 660 877	33 878	71 922	1 203 347	5 768 521	7 612 370	13 350 927	X	X
33635	Motor vehicle transmission and power train parts manufacturing .....	2003.. 89 281	5 365 213	72 770	162 188	4 239 461	13 421 513	19 582 542	32 730 877	3	3
		2002.. 102 269	5 722 538	83 222	184 433	4 544 852	14 435 438	20 834 114	35 163 840	X	X
336350	Motor vehicle transmission and power train parts manufacturing .....	2003.. 89 281	5 365 213	72 770	162 188	4 239 461	13 421 513	19 582 542	32 730 877	3	3
		2002.. 102 269	5 722 538	83 222	184 433	4 544 852	14 435 438	20 834 114	35 163 840	X	X
33636	Motor vehicle seating and interior trim manufacturing .....	2003.. 54 852	2 164 569	41 741	82 198	1 463 772	5 622 475	11 236 605	16 849 830	1	1
		2002.. 56 041	2 069 446	43 406	83 347	1 421 001	5 031 999	12 084 126	17 126 322	X	X
336360	Motor vehicle seating and interior trim manufacturing .....	2003.. 54 852	2 164 569	41 741	82 198	1 463 772	5 622 475	11 236 605	16 849 830	1	1
		2002.. 56 041	2 069 446	43 406	83 347	1 421 001	5 031 999	12 084 126	17 126 322	X	X
33637	Motor vehicle metal stamping .....	2003.. 106 292	5 752 544	86 813	184 711	4 518 769	12 362 856	12 750 896	25 155 424	3	2
		2002.. 125 636	5 785 041	103 959	190 981	4 539 280	12 472 296	13 193 148	25 599 749	X	X
336370	Motor vehicle metal stamping .....	2003.. 106 292	5 752 544	86 813	184 711	4 518 769	12 362 856	12 750 896	25 155 424	3	2
		2002.. 125 636	5 785 041	103 959	190 981	4 539 280	12 472 296	13 193 148	25 599 749	X	X
33639	Other motor vehicle parts manufacturing .....	2003.. 159 422	6 072 899	123 682	252 318	4 150 802	17 923 644	24 613 240	42 670 437	1	1
		2002.. 163 700	6 078 896	129 639	257 702	4 223 250	18 713 417	23 855 877	42 488 684	X	X
336391	Motor vehicle air-conditioning manufacturing .....	2003.. 18 870	938 360	14 953	29 930	658 100	2 468 493	3 937 865	6 406 247	1	1
		2002.. 19 053	920 567	15 344	30 770	683 948	2 767 581	3 986 459	6 756 851	X	X
336399	All other miscellaneous motor vehicle parts manufacturing .....	2003.. 140 552	5 134 538	108 729	222 387	3 492 702	15 455 151	20 675 375	36 264 190	1	1
		2002.. 144 647	5 158 329	114 295	226 932	3 539 302	15 945 836	19 869 418	35 731 833	X	X
3364	Aerospace product and parts manufacturing .....	2003.. 374 563	23 101 465	188 018	383 230	10 077 846	65 388 609	57 369 790	124 071 075	1	1
		2002.. 396 318	23 796 065	195 372	399 414	10 361 978	63 948 130	60 132 011	124 895 375	X	X
33641	Aerospace product and parts manufacturing .....	2003.. 374 563	23 101 465	188 018	383 230	10 077 846	65 388 609	57 369 790	124 071 075	1	1
		2002.. 396 318	23 796 065	195 372	399 414	10 361 978	63 948 130	60 132 011	124 895 375	X	X
336411	Aircraft manufacturing .....	2003.. 156 715	9 776 023	77 460	154 094	4 447 433	30 452 780	31 712 765	62 987 568	1	1
		2002.. 166 487	10 091 352	78 253	157 895	4 504 338	29 520 006	34 599 870	64 374 912	X	X
336412	Aircraft engine and engine parts manufacturing .....	2003.. 65 835	3 925 954	37 403	77 374	1 906 646	12 925 159	10 693 304	23 727 174	1	1
		2002.. 72 138	4 130 836	40 253	83 400	1 927 739	11 747 602	11 644 312	23 659 238	X	X
336413	Other aircraft parts and auxiliary equipment manufacturing .....	2003.. 94 392	5 244 998	51 004	106 769	2 436 918	12 365 590	7 763 084	20 493 713	1	1
		2002.. 98 299	5 333 010	53 931	113 477	2 666 689	13 191 390	7 275 808	20 778 584	X	X

See footnotes at end of table.

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments <sup>3</sup> (\$1,000)	Relative standard error of estimate <sup>4</sup> (percent) for column—	
		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
336	Transportation equipment manufacturing—Con.										
3364	Aerospace product and parts manufacturing—Con.										
33641	Aerospace product and parts manufacturing—Con.										
336414	Guided missile and space vehicle manufacturing .....	2003.. 38 081	2 891 937	14 011	28 012	915 236	7 054 686	6 274 183	13 375 263	1	1
		2002.. 38 661	2 935 471	14 376	27 212	866 872	6 956 362	5 580 180	12 517 495	X	X
336415	Guided missile and space vehicle propulsion unit and propulsion unit parts manufacturing .....	2003.. 13 843	979 602	5 012	10 794	260 680	2 003 840	661 094	2 653 829	2	1
		2002.. 14 512	984 405	5 530	11 274	285 206	1 848 076	725 835	2 601 373	X	X
336419	Other guided missile and space vehicle parts and auxiliary equipment manufacturing .....	2003.. 5 696	282 951	3 128	6 188	110 934	586 553	265 360	833 528	1	1
		2002.. 6 221	320 991	3 029	6 156	111 134	684 694	306 006	963 773	X	X
3365	Railroad rolling stock manufacturing ...	2003.. 24 675	1 166 328	15 401	29 934	586 616	2 907 028	4 388 307	7 513 990	1	2
		2002.. 25 638	1 208 611	15 807	31 119	640 446	3 808 488	4 078 054	7 923 275	X	X
33651	Railroad rolling stock manufacturing .....	2003.. 24 675	1 166 328	15 401	29 934	586 616	2 907 028	4 388 307	7 513 990	1	2
		2002.. 25 638	1 208 611	15 807	31 119	640 446	3 808 488	4 078 054	7 923 275	X	X
336510	Railroad rolling stock manufacturing .....	2003.. 24 675	1 166 328	15 401	29 934	586 616	2 907 028	4 388 307	7 513 990	1	2
		2002.. 25 638	1 208 611	15 807	31 119	640 446	3 808 488	4 078 054	7 923 275	X	X
3366	Ship and boat building .....	2003.. 134 507	5 199 415	98 678	197 072	3 421 469	12 636 346	9 436 552	22 072 897	1	1
		2002.. 137 339	5 088 638	101 010	193 094	3 302 537	12 203 724	9 059 994	21 263 718	X	X
33661	Ship and boat building .....	2003.. 134 507	5 199 415	98 678	197 072	3 421 469	12 636 346	9 436 552	22 072 897	1	1
		2002.. 137 339	5 088 638	101 010	193 094	3 302 537	12 203 724	9 059 994	21 263 718	X	X
336611	Ship building and repairing .....	2003.. 85 042	3 656 405	60 812	116 664	2 337 669	8 620 114	4 788 459	13 408 574	1	1
		2002.. 87 412	3 614 883	61 945	115 903	2 259 205	8 369 185	4 422 900	12 792 085	X	X
336612	Boat building .....	2003.. 49 465	1 543 011	37 866	80 408	1 083 801	4 016 231	4 648 092	8 664 324	2	2
		2002.. 49 927	1 473 755	39 065	77 191	1 043 332	3 834 539	4 637 094	8 471 633	X	X
3369	Other transportation equipment manufacturing .....	2003.. 39 731	1 601 859	29 030	55 714	995 688	5 669 270	8 235 348	13 910 886	2	1
		2002.. 40 351	1 550 898	28 921	56 180	958 242	5 725 737	7 558 262	13 363 749	X	X
33699	Other transportation equipment manufacturing .....	2003.. 39 731	1 601 859	29 030	55 714	995 688	5 669 270	8 235 348	13 910 886	2	1
		2002.. 40 351	1 550 898	28 921	56 180	958 242	5 725 737	7 558 262	13 363 749	X	X
336991	Motorcycle, bicycle, and parts manufacturing .....	2003.. 15 026	641 850	12 114	21 366	461 818	2 336 450	2 800 633	5 107 206	2	2
		2002.. 15 035	631 457	11 573	22 948	447 800	2 201 002	2 604 872	4 880 776	X	X
336992	Military armored vehicle, tank, and tank component manufacturing .....	2003.. 4 440	261 093	2 386	4 572	113 194	922 204	596 617	1 536 500	1	1
		2002.. 5 295	289 100	2 624	5 522	116 310	851 485	684 776	1 506 656	X	X
336999	All other transportation equipment manufacturing .....	2003.. 20 264	698 916	14 530	29 775	420 676	2 410 616	4 838 098	7 267 180	3	2
		2002.. 20 021	630 341	14 724	27 710	394 132	2 673 250	4 268 614	6 976 317	X	X
337	Furniture and related product manufacturing .....	2003.. 556 033	16 808 146	433 473	864 209	11 116 646	43 530 992	33 081 536	76 620 837	1	1
		2002.. 599 099	17 480 546	471 832	910 257	11 609 673	44 156 912	33 282 194	77 242 357	X	X
3371	Household and institutional furniture and kitchen cabinet manufacturing ...	2003.. 360 178	10 127 887	292 354	578 623	7 131 721	25 150 084	19 998 457	45 150 563	1	1
		2002.. 389 649	10 577 045	317 707	611 844	7 485 978	26 275 727	20 002 438	46 089 122	X	X
33711	Wood kitchen cabinet and counter top manufacturing .....	2003.. 128 113	3 781 647	102 438	206 504	2 620 188	9 185 395	6 072 671	15 202 292	1	1
		2002.. 126 626	3 636 299	100 540	195 736	2 525 740	8 593 383	5 752 567	14 348 396	X	X
337110	Wood kitchen cabinet and counter top manufacturing .....	2003.. 128 113	3 781 647	102 438	206 504	2 620 188	9 185 395	6 072 671	15 202 292	1	1
		2002.. 126 626	3 636 299	100 540	195 736	2 525 740	8 593 383	5 752 567	14 348 396	X	X
33712	Household and institutional furniture manufacturing .....	2003.. 232 065	6 346 240	189 915	372 119	4 511 533	15 964 689	13 925 785	29 948 271	1	1
		2002.. 263 023	6 940 746	217 167	416 108	4 960 238	17 682 344	14 249 871	31 740 726	X	X
337121	Upholstered household furniture manufacturing .....	2003.. 84 614	2 304 891	70 707	136 792	1 698 815	4 953 671	5 463 839	10 409 935	1	1
		2002.. 91 838	2 438 865	77 477	145 182	1 816 780	5 297 593	5 450 876	10 720 121	X	X
337122	Nonupholstered wood household furniture manufacturing .....	2003.. 95 502	2 457 350	80 369	156 267	1 817 007	6 815 620	4 787 394	11 664 755	2	2
		2002.. 111 984	2 750 652	94 907	182 934	2 061 055	7 753 926	5 146 329	12 725 672	X	X
337127	Institutional furniture manufacturing .....	2003.. 29 724	963 384	21 526	43 408	579 507	2 604 543	1 879 656	4 495 900	4	2
		2002.. 33 486	1 053 621	24 571	48 923	630 626	2 687 774	1 931 281	4 615 591	X	X
33712N	Other household nonupholstered furniture .....	2003.. 22 225	620 615	17 314	35 652	416 204	1 590 855	1 794 897	3 377 680	3	4
		2002.. 25 715	697 608	20 212	39 069	451 777	1 943 051	1 721 385	3 679 342	X	X
3372	Office furniture (including fixtures) manufacturing .....	2003.. 152 184	5 330 410	108 646	222 017	3 182 471	14 120 927	9 370 206	23 518 266	1	1
		2002.. 163 282	5 515 622	120 474	234 990	3 301 066	13 748 348	9 496 972	23 222 385	X	X
33721	Office furniture (including fixtures) manufacturing .....	2003.. 152 184	5 330 410	108 646	222 017	3 182 471	14 120 927	9 370 206	23 518 266	1	1
		2002.. 163 282	5 515 622	120 474	234 990	3 301 066	13 748 348	9 496 972	23 222 385	X	X
337212	Custom architectural woodwork and millwork manufacturing .....	2003.. 32 369	1 182 187	22 849	46 561	703 027	2 377 654	1 396 535	3 770 644	2	3
		2002.. 34 116	1 232 378	23 529	46 375	707 460	2 439 095	1 472 053	3 911 171	X	X
337215	Showcase, partition, shelving, and locker manufacturing .....	2003.. 62 306	2 065 069	46 656	95 699	1 270 531	4 454 638	3 843 406	8 339 759	2	3
		2002.. 70 301	2 183 350	53 018	102 119	1 339 115	4 710 669	3 889 093	8 580 468	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
337	Furniture and related product manufacturing—Con.										
3372	Office furniture (including fixtures) manufacturing—Con.										
33721	Office furniture (including fixtures) manufacturing—Con.										
33721N	Office furniture manufacturing . . . . .	2003.. 57 508	2 083 154	39 141	79 757	1 208 912	7 288 635	4 130 265	11 407 863	3	1
		2002.. 58 865	2 099 894	43 927	86 496	1 254 491	6 598 584	4 135 826	10 730 746	X	X
3379	Other furniture related product manufacturing . . . . .	2003.. 43 671	1 349 849	32 474	63 569	802 454	4 259 981	3 712 873	7 952 008	1	1
		2002.. 46 168	1 387 879	33 651	63 423	822 629	4 132 837	3 782 784	7 930 850	X	X
33791	Mattress manufacturing . . . . .	2003.. 22 227	774 948	17 500	35 192	493 307	2 864 738	2 385 582	5 234 912	2	1
		2002.. 23 027	763 765	17 976	34 848	481 996	2 800 861	2 309 263	5 098 958	X	X
337910	Mattress manufacturing . . . . .	2003.. 22 227	774 948	17 500	35 192	493 307	2 864 738	2 385 582	5 234 912	2	1
		2002.. 23 027	763 765	17 976	34 848	481 996	2 800 861	2 309 263	5 098 958	X	X
33792	Blind and shade manufacturing . . . . .	2003.. 21 443	574 900	14 974	28 376	309 146	1 395 244	1 327 292	2 717 096	2	1
		2002.. 23 141	624 114	15 675	28 575	340 633	1 331 976	1 473 521	2 831 892	X	X
337920	Blind and shade manufacturing . . . . .	2003.. 21 443	574 900	14 974	28 376	309 146	1 395 244	1 327 292	2 717 096	2	1
		2002.. 23 141	624 114	15 675	28 575	340 633	1 331 976	1 473 521	2 831 892	X	X
339	Miscellaneous manufacturing . . . . .	2003.. 730 565	27 607 963	472 761	931 743	12 965 579	83 172 059	47 591 194	129 730 667	1	1
		2002.. 761 345	27 469 180	495 317	954 580	13 267 863	79 723 553	47 097 541	126 949 653	X	X
3391	Medical equipment and supplies manufacturing . . . . .	2003.. 320 000	13 683 676	193 324	384 947	5 724 467	47 105 027	19 647 175	65 778 936	1	1
		2002.. 331 035	13 452 105	200 133	394 232	5 896 065	43 220 851	19 080 357	62 445 685	X	X
33911	Medical equipment and supplies manufacturing . . . . .	2003.. 320 000	13 683 676	193 324	384 947	5 724 467	47 105 027	19 647 175	65 778 936	1	1
		2002.. 331 035	13 452 105	200 133	394 232	5 896 065	43 220 851	19 080 357	62 445 685	X	X
339111	Laboratory apparatus and furniture manufacturing . . . . .	2003.. 22 731	1 039 159	12 571	25 511	405 326	2 913 726	1 769 827	4 705 653	1	1
		2002.. 24 388	1 102 706	12 879	26 405	408 228	2 791 589	1 805 434	4 597 033	X	X
339112	Surgical and medical instrument manufacturing . . . . .	2003.. 94 307	4 410 242	54 440	108 024	1 612 915	16 551 414	6 565 450	22 899 726	2	3
		2002.. 103 056	4 566 713	58 536	118 594	1 761 137	15 094 975	6 577 311	21 852 415	X	X
339113	Surgical appliance and supplies manufacturing . . . . .	2003.. 113 586	5 052 129	64 347	132 645	1 878 877	19 512 664	7 975 942	26 609 206	2	1
		2002.. 114 873	4 685 508	67 259	134 022	1 913 935	17 622 166	7 384 709	25 018 491	X	X
339114	Dental equipment and supplies manufacturing . . . . .	2003.. 16 960	723 615	10 147	18 858	287 208	2 227 568	1 106 471	3 366 409	2	1
		2002.. 17 358	699 714	10 240	18 452	289 845	2 122 358	1 158 195	3 261 561	X	X
339115	Ophthalmic goods manufacturing . . . . .	2003.. 21 372	852 238	14 190	27 584	445 735	2 942 161	1 556 240	4 549 036	5	6
		2002.. 21 861	872 686	14 626	27 987	454 550	2 847 264	1 531 502	4 347 849	X	X
339116	Dental laboratories . . . . .	2003.. 51 043	1 606 293	37 629	72 325	1 094 406	2 957 494	673 245	3 648 907	2	2
		2002.. 49 499	1 524 778	36 593	68 772	1 068 370	2 742 499	623 206	3 368 336	X	X
3399	Other miscellaneous manufacturing . . . . .	2003.. 410 565	13 924 287	279 437	546 796	7 241 112	36 067 032	27 944 020	63 951 731	1	1
		2002.. 430 310	14 017 075	295 184	560 348	7 371 798	36 502 702	28 017 184	64 503 968	X	X
33991	Jewelry and silverware manufacturing . . . . .	2003.. 48 150	1 530 457	33 160	63 647	806 919	3 951 197	4 696 042	8 623 056	1	1
		2002.. 50 535	1 551 766	34 939	64 724	818 905	3 933 829	4 916 112	8 862 030	X	X
33991M	Jewelry and silverware manufacturing . . . . .	2003.. 48 150	1 530 457	33 160	63 647	806 919	3 951 197	4 696 042	8 623 056	1	1
		2002.. 50 535	1 551 766	34 939	64 724	818 905	3 933 829	4 916 112	8 862 030	X	X
33992	Sporting and athletic goods manufacturing . . . . .	2003.. 60 995	2 028 354	40 110	78 015	1 015 185	7 029 192	5 185 809	12 149 414	1	2
		2002.. 62 602	2 084 390	41 464	80 347	1 005 624	6 822 934	5 036 876	11 963 702	X	X
339920	Sporting and athletic goods manufacturing . . . . .	2003.. 60 995	2 028 354	40 110	78 015	1 015 185	7 029 192	5 185 809	12 149 414	1	2
		2002.. 62 602	2 084 390	41 464	80 347	1 005 624	6 822 934	5 036 876	11 963 702	X	X
33993	Doll, toy, and game manufacturing . . . . .	2003.. 18 758	609 489	12 978	24 633	304 475	2 120 390	1 771 978	3 936 743	2	2
		2002.. 20 693	655 858	14 022	25 985	333 993	2 444 738	1 910 216	4 274 669	X	X
33993M	Doll, toy, and game manufacturing . . . . .	2003.. 18 758	609 489	12 978	24 633	304 475	2 120 390	1 771 978	3 936 743	2	2
		2002.. 20 693	655 858	14 022	25 985	333 993	2 444 738	1 910 216	4 274 669	X	X
33994	Office supplies (except paper) manufacturing . . . . .	2003.. 22 951	808 649	15 036	29 570	401 394	2 359 289	1 703 091	4 045 631	6	3
		2002.. 23 656	795 569	15 762	30 993	413 767	2 481 136	1 781 076	4 259 916	X	X
33994M	Office supplies (except paper) manufacturing . . . . .	2003.. 22 951	808 649	15 036	29 570	401 394	2 359 289	1 703 091	4 045 631	6	3
		2002.. 23 656	795 569	15 762	30 993	413 767	2 481 136	1 781 076	4 259 916	X	X
33995	Sign manufacturing . . . . .	2003.. 80 560	2 926 621	51 201	102 042	1 408 867	5 875 311	3 912 695	9 777 908	2	1
		2002.. 86 239	2 986 377	55 335	106 375	1 496 894	5 836 821	3 919 422	9 768 472	X	X
339950	Sign manufacturing . . . . .	2003.. 80 560	2 926 621	51 201	102 042	1 408 867	5 875 311	3 912 695	9 777 908	2	1
		2002.. 86 239	2 986 377	55 335	106 375	1 496 894	5 836 821	3 919 422	9 768 472	X	X
33999	All other miscellaneous manufacturing . . . . .	2003.. 179 151	6 020 717	126 954	248 889	3 304 272	14 731 652	10 674 404	25 418 980	1	1
		2002.. 186 585	5 943 115	133 662	251 924	3 302 615	14 983 244	10 453 482	25 375 179	X	X
339991	Gasket, packing, and sealing device manufacturing . . . . .	2003.. 34 640	1 314 630	24 917	52 325	775 731	3 048 104	2 145 921	5 174 966	3	2
		2002.. 38 060	1 350 431	27 893	54 858	799 581	3 121 141	2 184 570	5 300 769	X	X
339992	Musical instrument manufacturing . . . . .	2003.. 14 092	459 889	11 172	21 644	308 921	1 208 027	606 395	1 823 572	2	2
		2002.. 14 793	471 316	11 715	22 541	317 126	1 229 757	604 914	1 819 286	X	X
339993	Fastener, button, needle, and pin manufacturing . . . . .	2003.. 4 927	166 252	3 541	7 188	94 767	398 430	248 652	653 217	2	3
		2002.. 5 257	171 477	3 834	7 654	97 015	417 248	250 118	669 359	X	X

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		Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				A	F
		A	B	C	D	E				F	G
339	Miscellaneous manufacturing—Con.										
3399	Other miscellaneous manufacturing—Con.										
33999	All other miscellaneous manufacturing—Con.										
339994	Broom, brush, and mop manufacturing .....	2003.. 14 121	441 523	10 592	21 903	265 126	1 197 884	929 602	2 123 974	4	4
		2002.. 15 075	464 627	11 210	22 116	272 276	1 312 614	958 915	2 255 714	X	X
339995	Burial casket manufacturing .....	2003.. 5 038	174 299	4 134	8 097	126 170	637 897	327 742	976 899	5	2
		2002.. 5 435	172 060	4 539	9 313	125 402	767 764	409 141	1 201 488	X	X
339999	All other miscellaneous manufacturing .....	2003.. 106 333	3 464 124	72 599	137 733	1 733 556	8 241 310	6 416 092	14 666 352	2	1
		2002.. 107 965	3 313 204	74 471	135 442	1 691 215	8 134 720	6 045 824	14 128 563	X	X

<sup>1</sup>For a comparison of the Annual Survey of Manufactures (ASM) general statistics NAICS-based codes to the 2002 Economic Census NAICS codes, see Appendix F.

<sup>2</sup>Figures represent average number of production workers for the payroll period that includes the 12th of March, May, August, and November, plus other employees for the payroll period that includes the 12th of March.

<sup>3</sup>Data represent total value of shipments for most industries. For industries 311411, 311412, 311421, 311422, 311711, 311712, 311941, 311999, 312140, 312210, 312221, and 312229 value of production is shown. For industry 336611, value of work done is shown.

<sup>4</sup>Description of relative standard error of estimate is given in Appendix C. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note 1: Previous years' data may differ from that published in the 2002 Economic Census because of changes encountered in subsequent review of the 2003 Annual Survey of Manufactures (ASM).

Note 2: The data in this table are based on the 2003 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The data in this table contain sampling errors and nonsampling errors. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—
			Total	Payroll	Total fringe benefits	
			A	B	C	
<b>31-33</b>	<b>Manufacturing</b>	<b>13 875 542</b>	<b>718 611 539</b>	<b>565 026 110</b>	<b>153 585 430</b>	<b>1</b>
		<b>14 715 371</b>	<b>726 889 101</b>	<b>576 494 937</b>	<b>150 394 164</b>	<b>X</b>
311	Food manufacturing	1 467 372	58 129 077	45 685 146	12 443 931	1
		1 508 109	57 501 641	45 569 858	11 931 783	X
3111	Animal food manufacturing	46 684	2 267 612	1 805 066	462 546	2
		46 915	2 218 938	1 755 148	463 790	X
31111	Animal food manufacturing	46 684	2 267 612	1 805 066	462 546	2
		46 915	2 218 938	1 755 148	463 790	X
311111	Dog and cat food manufacturing	14 161	825 484	627 607	197 877	2
		14 368	833 042	629 271	203 771	X
311119	Other animal food manufacturing	32 523	1 442 128	1 177 459	264 670	3
		32 547	1 385 896	1 125 877	260 019	X
3112	Grain and oilseed milling	53 577	3 132 637	2 444 511	688 126	1
		55 498	3 151 926	2 485 458	666 468	X
31121	Flour milling and malt manufacturing	15 211	773 230	601 930	171 300	2
		15 987	755 640	609 967	145 673	X
31121M	Flour milling and malt manufacturing	15 211	773 230	601 930	171 300	2
		15 987	755 640	609 967	145 673	X
31122	Starch and vegetable fats and oils manufacturing	25 763	1 471 656	1 142 874	328 782	1
		26 897	1 514 836	1 184 910	329 926	X
311221	Wet corn milling	8 818	615 459	484 109	131 350	2
		9 538	653 118	507 648	145 470	X
311225	Fats and oils refining and blending	7 415	380 503	288 354	92 148	1
		8 508	434 165	333 936	100 229	X
31122N	Soybean and other oilseed processing	9 530	475 694	370 411	105 284	3
		8 851	427 553	343 326	84 227	X
31123	Breakfast cereal manufacturing	12 603	887 751	699 706	188 044	1
		12 614	881 450	690 581	190 869	X
311230	Breakfast cereal manufacturing	12 603	887 751	699 706	188 044	1
		12 614	881 450	690 581	190 869	X
3113	Sugar and confectionery product manufacturing	76 212	3 621 727	2 787 022	834 705	1
		79 904	3 533 378	2 739 785	793 593	X
31131	Sugar manufacturing	14 565	796 416	643 931	152 485	3
		14 603	714 890	562 651	152 239	X
311313	Beet sugar manufacturing	6 474	335 532	278 791	56 741	7
		5 697	283 293	220 394	62 899	X
31131N	Sugar cane mills and refining	8 091	460 884	365 140	95 745	1
		8 906	431 597	342 257	89 340	X
31132	Chocolate and confectionery manufacturing from cacao beans	8 570	506 957	364 605	142 351	5
		8 649	509 174	378 456	130 718	X
311320	Chocolate and confectionery manufacturing from cacao beans	8 570	506 957	364 605	142 351	5
		8 649	509 174	378 456	130 718	X
31133	Confectionery manufacturing from purchased chocolate	31 630	1 302 072	999 695	302 376	1
		33 249	1 308 994	1 015 966	293 028	X
311330	Confectionery manufacturing from purchased chocolate	31 630	1 302 072	999 695	302 376	1
		33 249	1 308 994	1 015 966	293 028	X
31134	Nonchocolate confectionery manufacturing	21 446	1 016 283	778 791	237 492	1
		23 403	1 000 320	782 712	217 608	X
311340	Nonchocolate confectionery manufacturing	21 446	1 016 283	778 791	237 492	1
		23 403	1 000 320	782 712	217 608	X
3114	Fruit and vegetable preserving and specialty food manufacturing	169 631	6 995 564	5 363 467	1 632 097	2
		178 759	7 060 759	5 434 795	1 625 964	X
31141	Frozen food manufacturing	85 785	3 257 077	2 502 944	754 133	2
		90 323	3 263 243	2 515 408	747 835	X
31141M	Frozen food manufacturing	85 785	3 257 077	2 502 944	754 133	2
		90 323	3 263 243	2 515 408	747 835	X
31142	Fruit and vegetable canning, pickling, and drying	83 845	3 738 487	2 860 523	877 964	3
		88 436	3 797 516	2 919 387	878 129	X
31142M	Fruit and vegetable canning, pickling, and drying	83 845	3 738 487	2 860 523	877 964	3
		88 436	3 797 516	2 919 387	878 129	X
3115	Dairy product manufacturing	129 377	6 456 106	4 962 849	1 493 258	1
		129 871	6 264 634	4 868 080	1 396 554	X
31151	Dairy product (except frozen) manufacturing	109 725	5 528 336	4 237 059	1 291 277	1
		109 361	5 350 652	4 138 258	1 212 394	X
311513	Cheese manufacturing	36 967	1 717 541	1 316 153	401 388	2
		37 204	1 643 620	1 274 545	369 075	X
311514	Dry, condensed, and evaporated dairy product manufacturing	14 026	822 959	604 960	218 000	4
		13 912	802 565	599 141	203 424	X
31151N	Fluid milk and butter manufacturing	58 732	2 987 836	2 315 947	671 889	1
		58 245	2 904 467	2 264 572	639 895	X
31152	Ice cream and frozen dessert manufacturing	19 652	927 771	725 790	201 981	2
		20 510	913 982	729 822	184 160	X
311520	Ice cream and frozen dessert manufacturing	19 652	927 771	725 790	201 981	2
		20 510	913 982	729 822	184 160	X
3116	Animal slaughtering and processing	493 605	15 594 532	12 671 622	2 922 910	1
		505 540	15 498 461	12 636 083	2 862 378	X
31161	Animal slaughtering and processing	493 605	15 594 532	12 671 622	2 922 910	1
		505 540	15 498 461	12 636 083	2 862 378	X
311615	Poultry processing	231 018	6 109 153	4 992 572	1 116 581	1
		242 542	6 268 349	5 117 995	1 150 854	X
31161N	Animal (except poultry) slaughtering and processing	262 587	9 485 379	7 679 051	1 806 329	1
		262 998	9 230 112	7 518 588	1 711 524	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—
			Total	Payroll	Total fringe benefits	
			A	B	C	
311	Food manufacturing—Con.					
3117	Seafood product preparation and packaging .....	43 099	1 336 347	1 130 621	205 725	6
	2002..	41 297	1 246 499	1 058 260	188 239	X
31171	Seafood product preparation and packaging .....	43 099	1 336 347	1 130 621	205 725	6
	2002..	41 297	1 246 499	1 058 260	188 239	X
31171M	Seafood product preparation and packaging .....	43 099	1 336 347	1 130 621	205 725	6
	2002..	41 297	1 246 499	1 058 260	188 239	X
3118	Bakeries and tortilla manufacturing .....	290 534	11 606 609	8 797 248	2 809 361	1
	2002..	308 475	11 954 463	9 245 292	2 709 171	X
31181	Bread and bakery product manufacturing .....	226 155	8 644 007	6 551 710	2 092 297	2
	2002..	240 572	9 003 966	6 946 541	2 057 425	X
31181M	Bread and bakery product manufacturing .....	226 155	8 644 007	6 551 710	2 092 297	2
	2002..	240 572	9 003 966	6 946 541	2 057 425	X
31182	Cookie, cracker, and pasta manufacturing .....	51 655	2 579 882	1 942 100	637 782	2
	2002..	55 309	2 562 602	1 989 142	573 460	X
31182M	Cookie, cracker, and pasta manufacturing .....	51 655	2 579 882	1 942 100	637 782	2
	2002..	55 309	2 562 602	1 989 142	573 460	X
31183	Tortilla manufacturing .....	12 723	382 720	303 438	79 282	2
	2002..	12 594	387 895	309 609	78 286	X
311830	Tortilla manufacturing .....	12 723	382 720	303 438	79 282	2
	2002..	12 594	387 895	309 609	78 286	X
3119	Other food manufacturing .....	164 654	7 117 942	5 722 740	1 395 202	1
	2002..	161 850	6 572 583	5 346 957	1 225 626	X
31191	Snack food manufacturing .....	44 344	1 734 394	1 375 921	358 473	3
	2002..	45 038	1 657 138	1 361 248	295 890	X
31191M	Snack food manufacturing .....	44 344	1 734 394	1 375 921	358 473	3
	2002..	45 038	1 657 138	1 361 248	295 890	X
31192	Coffee and tea manufacturing .....	11 654	665 321	518 499	146 822	2
	2002..	11 431	615 843	482 463	133 380	X
311920	Coffee and tea manufacturing .....	11 654	665 321	518 499	146 822	2
	2002..	11 431	615 843	482 463	133 380	X
31193	Flavoring syrup and concentrate manufacturing .....	6 164	319 272	256 416	62 856	6
	2002..	5 737	297 598	237 700	59 898	X
311930	Flavoring syrup and concentrate manufacturing .....	6 164	319 272	256 416	62 856	6
	2002..	5 737	297 598	237 700	59 898	X
31194	Seasoning and dressing manufacturing .....	29 625	1 561 680	1 245 152	316 528	2
	2002..	29 408	1 478 228	1 194 858	283 370	X
31194M	Seasoning and dressing manufacturing .....	29 625	1 561 680	1 245 152	316 528	2
	2002..	29 408	1 478 228	1 194 858	283 370	X
31199	All other food manufacturing .....	72 867	2 837 275	2 326 752	510 523	2
	2002..	70 236	2 523 776	2 070 688	453 088	X
31199M	All other food manufacturing .....	72 867	2 837 275	2 326 752	510 523	2
	2002..	70 236	2 523 776	2 070 688	453 088	X
312	Beverage and tobacco product manufacturing .....	151 253	9 092 220	6 865 505	2 226 715	2
	2002..	159 713	9 097 732	6 911 448	2 186 284	X
3121	Beverage manufacturing .....	126 597	7 079 978	5 461 411	1 618 567	3
	2002..	134 652	7 140 997	5 510 122	1 630 875	X
31211	Soft drink and ice manufacturing .....	70 909	3 404 928	2 719 118	685 810	8
	2002..	76 173	3 513 616	2 756 346	757 270	X
31211M	Soft drink and ice manufacturing .....	70 909	3 404 928	2 719 118	685 810	8
	2002..	76 173	3 513 616	2 756 346	757 270	X
31212	Breweries .....	27 273	2 062 732	1 453 768	608 964	1
	2002..	28 347	2 025 009	1 463 189	561 820	X
312120	Breweries .....	27 273	2 062 732	1 453 768	608 964	1
	2002..	28 347	2 025 009	1 463 189	561 820	X
31213	Wineries .....	23 284	1 304 828	1 045 409	259 418	2
	2002..	24 529	1 284 878	1 037 172	247 706	X
312130	Wineries .....	23 284	1 304 828	1 045 409	259 418	2
	2002..	24 529	1 284 878	1 037 172	247 706	X
31214	Distilleries .....	5 131	307 490	243 115	64 375	3
	2002..	5 603	317 494	253 415	64 079	X
312140	Distilleries .....	5 131	307 490	243 115	64 375	3
	2002..	5 603	317 494	253 415	64 079	X
3122	Tobacco manufacturing .....	24 655	2 012 242	1 404 094	608 148	1
	2002..	25 061	1 956 735	1 401 326	555 409	X
31221	Tobacco stemming and redrying .....	2 568	97 466	75 467	21 999	1
	2002..	2 611	93 173	72 252	20 921	X
312210	Tobacco stemming and redrying .....	2 568	97 466	75 467	21 999	1
	2002..	2 611	93 173	72 252	20 921	X
31222	Tobacco product manufacturing .....	22 087	1 914 776	1 328 627	586 149	1
	2002..	22 450	1 863 562	1 329 074	534 488	X
31222M	Tobacco product manufacturing .....	22 087	1 914 776	1 328 627	586 149	1
	2002..	22 450	1 863 562	1 329 074	534 488	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—	
			Total	Payroll	Total fringe benefits		
			A	B	C		D
313	Textile mills .....	2003..	247 474	9 023 089	7 166 671	1 856 418	1
		2002..	268 595	9 543 893	7 651 630	1 892 263	X
3131	Fiber, yarn, and thread mills .....	2003..	58 833	1 923 333	1 509 937	413 396	1
		2002..	62 236	2 010 292	1 599 536	410 756	X
31311	Fiber, yarn, and thread mills .....	2003..	58 833	1 923 333	1 509 937	413 396	1
		2002..	62 236	2 010 292	1 599 536	410 756	X
31311M	Fiber, yarn, and thread mills .....	2003..	58 833	1 923 333	1 509 937	413 396	1
		2002..	62 236	2 010 292	1 599 536	410 756	X
3132	Fabric mills .....	2003..	129 720	4 933 656	3 883 950	1 049 706	1
		2002..	142 228	5 242 218	4 161 340	1 080 878	X
31321	Broadwoven fabric mills .....	2003..	72 356	2 519 826	1 998 577	521 250	1
		2002..	81 019	2 813 344	2 249 701	563 643	X
313210	Broadwoven fabric mills .....	2003..	72 356	2 519 826	1 998 577	521 250	1
		2002..	81 019	2 813 344	2 249 701	563 643	X
31322	Narrow fabric mills and schiffli machine embroidery .....	2003..	12 874	454 749	364 074	90 676	2
		2002..	14 358	468 845	379 224	89 621	X
31322M	Narrow fabric mills and schiffli machine embroidery .....	2003..	12 874	454 749	364 074	90 676	2
		2002..	14 358	468 845	379 224	89 621	X
31323	Nonwoven fabric mills .....	2003..	20 549	1 125 304	854 602	270 702	2
		2002..	21 648	1 122 757	853 552	269 205	X
313230	Nonwoven fabric mills .....	2003..	20 549	1 125 304	854 602	270 702	2
		2002..	21 648	1 122 757	853 552	269 205	X
31324	Knit fabric mills .....	2003..	23 941	833 776	666 698	167 079	2
		2002..	25 203	837 272	678 863	158 409	X
31324M	Knit fabric mills .....	2003..	23 941	833 776	666 698	167 079	2
		2002..	25 203	837 272	678 863	158 409	X
3133	Textile and fabric finishing and fabric coating mills .....	2003..	58 921	2 166 100	1 772 784	393 316	2
		2002..	64 131	2 291 383	1 890 754	400 629	X
31331	Textile and fabric finishing mills .....	2003..	50 023	1 733 402	1 426 964	306 438	2
		2002..	54 998	1 859 538	1 543 232	316 306	X
31331M	Textile and fabric finishing mills .....	2003..	50 023	1 733 402	1 426 964	306 438	2
		2002..	54 998	1 859 538	1 543 232	316 306	X
31332	Fabric coating mills .....	2003..	8 898	432 698	345 820	86 878	2
		2002..	9 133	431 845	347 522	84 323	X
313320	Fabric coating mills .....	2003..	8 898	432 698	345 820	86 878	2
		2002..	9 133	431 845	347 522	84 323	X
314	Textile product mills .....	2003..	169 872	5 597 560	4 596 409	1 001 151	1
		2002..	182 155	5 726 761	4 723 723	1 003 038	X
3141	Textile furnishings mills .....	2003..	94 186	3 079 951	2 507 001	572 950	1
		2002..	101 035	3 154 238	2 595 905	558 333	X
31411	Carpet and rug mills .....	2003..	41 610	1 592 653	1 279 697	312 956	1
		2002..	43 806	1 590 907	1 291 972	298 935	X
314110	Carpet and rug mills .....	2003..	41 610	1 592 653	1 279 697	312 956	1
		2002..	43 806	1 590 907	1 291 972	298 935	X
31412	Curtain and linen mills .....	2003..	52 576	1 487 298	1 227 304	259 994	1
		2002..	57 229	1 563 331	1 303 933	259 398	X
31412M	Curtain and linen mills .....	2003..	52 576	1 487 298	1 227 304	259 994	1
		2002..	57 229	1 563 331	1 303 933	259 398	X
3149	Other textile product mills .....	2003..	75 686	2 517 608	2 089 407	428 201	3
		2002..	81 120	2 572 523	2 127 818	444 705	X
31491	Textile bag and canvas mills .....	2003..	24 782	770 917	663 752	107 166	8
		2002..	24 885	775 572	664 098	111 474	X
31491M	Textile bag and canvas mills .....	2003..	24 782	770 917	663 752	107 166	8
		2002..	24 885	775 572	664 098	111 474	X
31499	All other textile product mills .....	2003..	50 905	1 746 691	1 425 656	321 036	3
		2002..	56 235	1 796 951	1 463 720	333 231	X
314991	Rope, cordage, and twine mills .....	2003..	4 461	173 532	144 630	28 902	3
		2002..	5 149	186 039	155 933	30 106	X
314992	Tire cord and tire fabric mills .....	2003..	4 419	234 161	161 041	73 120	1
		2002..	4 595	223 623	153 564	70 059	X
314999	All other miscellaneous textile product mills .....	2003..	42 024	1 338 999	1 119 985	219 014	5
		2002..	46 491	1 387 289	1 154 223	233 066	X
315	Apparel manufacturing .....	2003..	296 076	7 959 527	6 704 204	1 255 323	1
		2002..	343 484	8 834 802	7 446 715	1 388 087	X
3151	Apparel knitting mills .....	2003..	42 794	1 293 342	1 045 668	247 674	2
		2002..	51 011	1 440 591	1 179 708	260 883	X
31511	Hosiery and sock mills .....	2003..	28 929	868 987	697 974	171 013	3
		2002..	33 057	931 696	758 698	172 998	X
31511M	Hosiery and sock mills .....	2003..	28 929	868 987	697 974	171 013	3
		2002..	33 057	931 696	758 698	172 998	X
31519	Other apparel knitting mills .....	2003..	13 865	424 355	347 694	76 662	3
		2002..	17 954	508 895	421 010	87 885	X
31519M	Other apparel knitting mills .....	2003..	13 865	424 355	347 694	76 662	3
		2002..	17 954	508 895	421 010	87 885	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—
			Total	Payroll	Total fringe benefits	
			A	B	C	
315	Apparel manufacturing—Con.					
3152	Cut and sew apparel manufacturing .....	227 585	5 922 677	5 028 038	894 638	1
	2003..					
	2002..	264 576	6 627 819	5 615 533	1 012 286	X
31521	Cut and sew apparel contractors .....	86 793	1 576 012	1 357 431	218 581	3
	2003..	100 599	1 806 337	1 555 217	251 120	X
31521M	Cut and sew apparel contractors .....	86 793	1 576 012	1 357 431	218 581	3
	2003..	100 599	1 806 337	1 555 217	251 120	X
	2002..					
31522	Men's and boys' cut and sew apparel manufacturing .....	54 965	1 502 485	1 208 763	293 722	3
	2003..	69 205	1 828 025	1 468 563	359 462	X
31522M	Men's and boys' cut and sew apparel manufacturing .....	54 965	1 502 485	1 208 763	293 722	3
	2003..	69 205	1 828 025	1 468 563	359 462	X
	2002..					
31523	Women's and girls' cut and sew apparel manufacturing .....	67 098	2 349 785	2 034 712	315 072	1
	2003..	75 362	2 508 057	2 175 118	332 939	X
31523M	Women's and girls' cut and sew apparel manufacturing .....	67 098	2 349 785	2 034 712	315 072	1
	2003..	75 362	2 508 057	2 175 118	332 939	X
	2002..					
31529	Other cut and sew apparel manufacturing .....	18 729	494 395	427 132	67 263	3
	2003..	19 410	485 400	416 635	68 765	X
31529M	Other cut and sew apparel manufacturing .....	18 729	494 395	427 132	67 263	3
	2003..	19 410	485 400	416 635	68 765	X
	2002..					
3159	Apparel accessories and other apparel manufacturing .....	25 698	743 508	630 498	113 011	2
	2003..	27 897	766 392	651 474	114 918	X
31599	Apparel accessories and other apparel manufacturing .....	25 698	743 508	630 498	113 011	2
	2003..	27 897	766 392	651 474	114 918	X
31599M	Apparel accessories and other apparel manufacturing .....	25 698	743 508	630 498	113 011	2
	2003..	27 897	766 392	651 474	114 918	X
	2002..					
316	Leather and allied product manufacturing .....	40 588	1 368 364	1 111 911	256 453	2
	2003..	44 728	1 411 726	1 159 988	251 738	X
3161	Leather and hide tanning and finishing .....	7 871	331 810	257 977	73 833	3
	2003..	8 909	352 182	280 689	71 493	X
31611	Leather and hide tanning and finishing .....	7 871	331 810	257 977	73 833	3
	2003..	8 909	352 182	280 689	71 493	X
316110	Leather and hide tanning and finishing .....	7 871	331 810	257 977	73 833	3
	2003..	8 909	352 182	280 689	71 493	X
	2002..					
3162	Footwear manufacturing .....	17 702	584 661	470 537	114 125	4
	2003..	19 328	591 793	480 312	111 481	X
31621	Footwear manufacturing .....	17 702	584 661	470 537	114 125	4
	2003..	19 328	591 793	480 312	111 481	X
31621M	Footwear manufacturing .....	17 702	584 661	470 537	114 125	4
	2003..	19 328	591 793	480 312	111 481	X
	2002..					
3169	Other leather and allied product manufacturing .....	15 016	451 893	383 397	68 496	3
	2003..	16 491	467 751	398 987	68 764	X
31699	Other leather and allied product manufacturing .....	15 016	451 893	383 397	68 496	3
	2003..	16 491	467 751	398 987	68 764	X
31699M	Other leather and allied product manufacturing .....	15 016	451 893	383 397	68 496	3
	2003..	16 491	467 751	398 987	68 764	X
	2002..					
321	Wood product manufacturing .....	511 430	19 194 438	15 631 193	3 563 246	1
	2003..	540 102	19 588 650	16 038 205	3 550 445	X
3211	Sawmills and wood preservation .....	103 705	4 316 518	3 452 852	863 666	1
	2003..	108 014	4 342 991	3 495 075	847 916	X
32111	Sawmills and wood preservation .....	103 705	4 316 518	3 452 852	863 666	1
	2003..	108 014	4 342 991	3 495 075	847 916	X
32111M	Sawmills and wood preservation .....	103 705	4 316 518	3 452 852	863 666	1
	2003..	108 014	4 342 991	3 495 075	847 916	X
	2002..					
3212	Veneer, plywood, and engineered wood product manufacturing .....	110 269	4 575 080	3 639 275	935 804	1
	2003..	114 184	4 595 274	3 678 367	916 907	X
32121	Veneer, plywood, and engineered wood product manufacturing .....	110 269	4 575 080	3 639 275	935 804	1
	2003..	114 184	4 595 274	3 678 367	916 907	X
321219	Reconstituted wood product manufacturing .....	20 797	1 051 881	793 599	258 282	1
	2003..	22 539	1 076 299	830 494	245 805	X
32121N	Veneer and plywood manufacturing .....	40 849	1 710 238	1 320 735	389 503	2
	2003..	44 266	1 837 597	1 424 744	412 853	X
32121P	Engineered wood product manufacturing .....	48 622	1 812 961	1 524 942	288 020	2
	2003..	47 379	1 681 378	1 423 129	258 249	X
3219	Other wood product manufacturing .....	297 457	10 302 840	8 539 066	1 763 775	1
	2003..	317 904	10 650 385	8 864 763	1 785 622	X
32191	Millwork .....	147 690	5 323 777	4 371 407	952 370	2
	2003..	150 902	5 338 894	4 408 315	930 579	X
32191M	Millwork .....	147 690	5 323 777	4 371 407	952 370	2
	2003..	150 902	5 338 894	4 408 315	930 579	X
	2002..					
32192	Wood container and pallet manufacturing .....	46 528	1 293 446	1 116 499	176 946	2
	2003..	51 028	1 331 683	1 154 765	176 918	X
321920	Wood container and pallet manufacturing .....	46 528	1 293 446	1 116 499	176 946	2
	2003..	51 028	1 331 683	1 154 765	176 918	X
	2002..					

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—	
			Total	Payroll	Total fringe benefits		
			A	B	C		D
321	Wood product manufacturing—Con.						
3219	Other wood product manufacturing—Con.						
32199	All other wood product manufacturing .....	2003..	103 239	3 685 617	3 051 159	634 458	1
		2002..	115 974	3 979 808	3 301 683	678 125	X
321991	Manufactured home (mobile home) manufacturing .....	2003..	42 764	1 539 387	1 261 023	278 365	1
		2002..	50 270	1 714 730	1 415 288	299 442	X
321992	Prefabricated wood building manufacturing .....	2003..	23 075	911 683	760 800	150 883	5
		2002..	25 217	933 598	784 935	148 663	X
321999	All other miscellaneous wood product manufacturing .....	2003..	37 400	1 234 547	1 029 336	205 211	2
		2002..	40 487	1 331 480	1 101 460	230 020	X
322	Paper manufacturing .....	2003..	464 326	27 043 942	20 772 602	6 271 341	1
		2002..	491 832	27 531 457	21 492 423	6 039 034	X
3221	Pulp, paper, and paperboard mills .....	2003..	144 810	10 990 508	8 261 064	2 729 444	1
		2002..	159 044	11 652 005	8 862 381	2 789 624	X
32211	Pulp mills .....	2003..	8 059	656 478	490 922	165 556	1
		2002..	8 043	645 250	487 324	157 926	X
322110	Pulp mills .....	2003..	8 059	656 478	490 922	165 556	1
		2002..	8 043	645 250	487 324	157 926	X
32212	Paper mills .....	2003..	92 036	7 005 844	5 230 282	1 775 562	1
		2002..	102 781	7 584 813	5 719 436	1 865 377	X
32212M	Paper and newsprint mills .....	2003..	92 036	7 005 844	5 230 282	1 775 562	1
		2002..	102 781	7 584 813	5 719 436	1 865 377	X
32213	Paperboard mills .....	2003..	44 715	3 328 185	2 539 860	788 325	1
		2002..	48 220	3 421 942	2 655 621	766 321	X
322130	Paperboard mills .....	2003..	44 715	3 328 185	2 539 860	788 325	1
		2002..	48 220	3 421 942	2 655 621	766 321	X
3222	Converted paper product manufacturing .....	2003..	319 516	16 053 434	12 511 537	3 541 897	1
		2002..	332 788	15 879 452	12 630 042	3 249 410	X
32221	Paperboard container manufacturing .....	2003..	176 450	8 939 670	6 948 409	1 991 261	1
		2002..	184 457	8 865 256	7 064 347	1 800 909	X
32221M	Paperboard container manufacturing .....	2003..	176 450	8 939 670	6 948 409	1 991 261	1
		2002..	184 457	8 865 256	7 064 347	1 800 909	X
32222	Paper bag and coated and treated paper manufacturing .....	2003..	64 161	3 390 986	2 626 880	764 106	1
		2002..	66 296	3 351 125	2 640 583	710 542	X
32222N	Coated and laminated paper and packaging manufacturing .....	2003..	41 295	2 291 081	1 791 388	499 693	1
		2002..	42 988	2 268 390	1 800 737	467 653	X
32222P	Coated, uncoated, and multiwall bag and packaging manufacturing .....	2003..	22 866	1 099 905	835 493	264 412	1
		2002..	23 308	1 082 735	839 846	242 889	X
32223	Stationery product manufacturing .....	2003..	39 036	1 686 784	1 344 730	342 054	3
		2002..	38 937	1 642 083	1 312 919	329 164	X
32223M	Stationery product manufacturing .....	2003..	39 036	1 686 784	1 344 730	342 054	3
		2002..	38 937	1 642 083	1 312 919	329 164	X
32229	Other converted paper product manufacturing .....	2003..	39 868	2 035 994	1 591 517	444 477	2
		2002..	43 098	2 020 988	1 612 193	408 795	X
322291	Sanitary paper product manufacturing .....	2003..	19 260	1 145 109	879 849	265 261	1
		2002..	20 053	1 079 554	843 966	235 588	X
322299	All other converted paper product manufacturing .....	2003..	20 608	890 885	711 669	179 216	5
		2002..	23 045	941 434	768 227	173 207	X
323	Printing and related support activities .....	2003..	675 362	29 808 040	25 127 150	4 680 889	1
		2002..	717 413	30 335 296	25 687 268	4 648 028	X
3231	Printing and related support activities .....	2003..	675 362	29 808 040	25 127 150	4 680 889	1
		2002..	717 413	30 335 296	25 687 268	4 648 028	X
32311	Printing .....	2003..	622 139	27 468 885	23 107 260	4 361 624	1
		2002..	661 269	27 884 390	23 559 040	4 325 350	X
32311M	Printing .....	2003..	622 139	27 468 885	23 107 260	4 361 624	1
		2002..	661 269	27 884 390	23 559 040	4 325 350	X
32312	Support activities for printing .....	2003..	53 223	2 339 155	2 019 890	319 265	3
		2002..	56 144	2 450 906	2 128 228	322 678	X
32312M	Support activities for printing .....	2003..	53 223	2 339 155	2 019 890	319 265	3
		2002..	56 144	2 450 906	2 128 228	322 678	X
324	Petroleum and coal products manufacturing .....	2003..	101 390	8 548 545	6 411 303	2 137 242	1
		2002..	103 308	8 103 978	6 201 712	1 902 266	X
3241	Petroleum and coal products manufacturing .....	2003..	101 390	8 548 545	6 411 303	2 137 242	1
		2002..	103 308	8 103 978	6 201 712	1 902 266	X
32411	Petroleum refineries .....	2003..	61 037	6 187 703	4 532 313	1 655 390	1
		2002..	62 372	5 847 991	4 386 286	1 461 725	X
324110	Petroleum refineries .....	2003..	61 037	6 187 703	4 532 313	1 655 390	1
		2002..	62 372	5 847 991	4 386 286	1 461 725	X
32412	Asphalt paving, roofing, and saturated materials manufacturing .....	2003..	28 070	1 541 417	1 237 418	303 999	1
		2002..	27 438	1 428 208	1 152 750	275 458	X
324121	Asphalt paving mixture and block manufacturing .....	2003..	15 337	824 675	658 697	165 978	2
		2002..	15 439	775 360	623 184	152 176	X
324122	Asphalt shingle and coating materials manufacturing .....	2003..	12 733	716 742	578 721	138 021	1
		2002..	11 999	652 848	529 566	123 282	X
32419	Other petroleum and coal products manufacturing .....	2003..	12 283	819 424	641 571	177 853	2
		2002..	13 498	827 779	662 696	165 083	X
324191	Petroleum lubricating oil and grease manufacturing .....	2003..	9 509	635 199	503 323	131 876	3
		2002..	10 367	636 286	517 054	119 232	X
324199	All other petroleum and coal products manufacturing .....	2003..	2 774	184 225	138 248	45 977	3
		2002..	3 131	191 493	145 642	45 851	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—	
			Total	Payroll	Total fringe benefits		
			A	B	C		D
325	Chemical manufacturing .....	2003..	829 499	57 510 178	45 081 596	12 428 582	1
		2002..	857 249	56 555 766	44 784 380	11 771 386	X
3251	Basic chemical manufacturing .....	2003..	171 882	13 771 787	10 538 325	3 233 462	1
		2002..	181 467	13 935 651	10 864 281	3 071 370	X
32511	Petrochemical manufacturing .....	2003..	8 211	838 828	613 317	225 511	1
		2002..	9 380	850 007	656 367	193 640	X
325110	Petrochemical manufacturing .....	2003..	8 211	838 828	613 317	225 511	1
		2002..	9 380	850 007	656 367	193 640	X
32512	Industrial gas manufacturing .....	2003..	10 391	776 321	599 109	177 212	2
		2002..	10 650	770 136	592 745	177 391	X
325120	Industrial gas manufacturing .....	2003..	10 391	776 321	599 109	177 212	2
		2002..	10 650	770 136	592 745	177 391	X
32513	Synthetic dye and pigment manufacturing .....	2003..	13 388	926 170	728 208	197 962	2
		2002..	15 109	996 483	789 146	207 337	X
32513M	Synthetic dye and pigment manufacturing .....	2003..	13 388	926 170	728 208	197 962	2
		2002..	15 109	996 483	789 146	207 337	X
32518	Other basic inorganic chemical manufacturing .....	2003..	56 085	4 544 262	3 463 636	1 080 626	1
		2002..	57 302	4 460 564	3 463 947	996 617	X
325181	Alkalies and chlorine manufacturing .....	2003..	5 890	516 614	373 094	143 520	1
		2002..	6 253	520 542	384 934	135 608	X
325182	Carbon black manufacturing .....	2003..	1 619	126 901	98 476	28 424	2
		2002..	1 665	122 770	99 409	23 361	X
325188	All other basic inorganic chemical manufacturing .....	2003..	48 576	3 900 747	2 992 065	908 683	1
		2002..	49 384	3 817 252	2 979 604	837 648	X
32519	Other basic organic chemical manufacturing .....	2003..	83 807	6 686 206	5 134 056	1 552 149	1
		2002..	89 026	6 858 461	5 362 076	1 496 385	X
32519M	Other basic organic chemical manufacturing .....	2003..	83 807	6 686 206	5 134 056	1 552 149	1
		2002..	89 026	6 858 461	5 362 076	1 496 385	X
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	2003..	94 211	6 738 117	5 077 327	1 660 790	1
		2002..	100 118	6 893 374	5 283 168	1 610 206	X
32521	Resin and synthetic rubber manufacturing .....	2003..	70 749	5 414 007	4 106 885	1 307 122	1
		2002..	76 276	5 585 953	4 319 247	1 266 706	X
325211	Plastics material and resin manufacturing .....	2003..	61 231	4 639 456	3 541 883	1 097 573	1
		2002..	66 790	4 895 860	3 808 675	1 087 185	X
325212	Synthetic rubber manufacturing .....	2003..	9 518	774 551	565 002	209 548	1
		2002..	9 486	690 093	510 572	179 521	X
32522	Artificial and synthetic fibers and filaments manufacturing .....	2003..	23 462	1 324 110	970 442	353 668	1
		2002..	23 842	1 307 421	963 921	343 500	X
32522M	Artificial and synthetic fibers and filaments manufacturing .....	2003..	23 462	1 324 110	970 442	353 668	1
		2002..	23 842	1 307 421	963 921	343 500	X
3253	Pesticide, fertilizer, and other agricultural chemical manufacturing .....	2003..	30 807	1 898 534	1 481 563	416 971	1
		2002..	31 746	1 922 755	1 518 359	404 396	X
32531	Fertilizer manufacturing .....	2003..	19 852	1 190 146	925 611	264 535	1
		2002..	20 882	1 197 128	948 336	248 792	X
325311	Nitrogenous fertilizer manufacturing .....	2003..	4 285	327 138	253 040	74 099	1
		2002..	4 760	348 546	282 589	65 957	X
325312	Phosphatic fertilizer manufacturing .....	2003..	6 203	464 495	345 458	119 037	1
		2002..	6 286	445 711	335 245	110 466	X
325314	Fertilizer (mixing only) manufacturing .....	2003..	9 364	398 513	327 114	71 399	5
		2002..	9 836	402 871	330 502	72 369	X
32532	Pesticide and other agricultural chemical manufacturing .....	2003..	10 955	708 388	555 952	152 436	1
		2002..	10 864	725 627	570 023	155 604	X
325320	Pesticide and other agricultural chemical manufacturing .....	2003..	10 955	708 388	555 952	152 436	1
		2002..	10 864	725 627	570 023	155 604	X
3254	Pharmaceutical and medicine manufacturing .....	2003..	244 811	18 053 208	14 388 367	3 664 841	2
		2002..	249 384	17 275 558	13 856 626	3 418 932	X
32541	Pharmaceutical and medicine manufacturing .....	2003..	244 811	18 053 208	14 388 367	3 664 841	2
		2002..	249 384	17 275 558	13 856 626	3 418 932	X
325411	Medicinal and botanical manufacturing .....	2003..	20 367	1 362 997	1 125 565	237 432	1
		2002..	20 473	1 335 343	1 094 039	241 304	X
325412	Pharmaceutical preparation manufacturing .....	2003..	175 439	13 164 982	10 414 903	2 750 079	2
		2002..	177 607	12 508 171	9 968 414	2 539 757	X
325413	In-vitro diagnostic substance manufacturing .....	2003..	26 038	1 869 762	1 548 646	321 116	5
		2002..	26 929	1 803 512	1 502 728	300 784	X
325414	Biological product (except diagnostic) manufacturing .....	2003..	22 967	1 655 468	1 299 253	356 215	1
		2002..	24 375	1 628 532	1 291 445	337 087	X
3255	Paint, coating, and adhesive manufacturing .....	2003..	66 150	3 817 550	3 040 012	777 538	1
		2002..	67 847	3 740 251	3 003 792	736 459	X
32551	Paint and coating manufacturing .....	2003..	45 269	2 614 757	2 081 947	532 810	2
		2002..	46 633	2 571 906	2 061 075	510 831	X
325510	Paint and coating manufacturing .....	2003..	45 269	2 614 757	2 081 947	532 810	2
		2002..	46 633	2 571 906	2 061 075	510 831	X
32552	Adhesive manufacturing .....	2003..	20 881	1 202 792	958 065	244 728	3
		2002..	21 214	1 168 345	942 717	225 628	X
325520	Adhesive manufacturing .....	2003..	20 881	1 202 792	958 065	244 728	3
		2002..	21 214	1 168 345	942 717	225 628	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—
			Total	Payroll	Total fringe benefits	
			A	B	C	
325	Chemical manufacturing—Con.					
3256	Soap, cleaning compound, and toilet preparation manufacturing .....	112 506	6 466 877	5 147 909	1 318 968	2
	2002..	118 008	6 307 944	5 025 121	1 282 823	X
32561	Soap and cleaning compound manufacturing .....	48 917	2 924 471	2 308 589	615 882	2
	2002..	49 001	2 824 237	2 236 643	587 594	X
32561M	Soap and cleaning compound manufacturing .....	48 917	2 924 471	2 308 589	615 882	2
	2002..	49 001	2 824 237	2 236 643	587 594	X
32562	Toilet preparation manufacturing .....	63 589	3 542 406	2 839 320	703 085	2
	2002..	69 007	3 483 707	2 788 478	695 229	X
325620	Toilet preparation manufacturing .....	63 589	3 542 406	2 839 320	703 085	2
	2002..	69 007	3 483 707	2 788 478	695 229	X
3259	Other chemical product and preparation manufacturing .....	109 132	6 764 104	5 408 092	1 356 013	1
	2002..	108 679	6 480 233	5 233 033	1 247 200	X
32591	Printing ink manufacturing .....	12 171	730 400	587 235	143 166	3
	2002..	12 504	726 355	595 154	131 201	X
325910	Printing ink manufacturing .....	12 171	730 400	587 235	143 166	3
	2002..	12 504	726 355	595 154	131 201	X
32592	Explosives manufacturing .....	5 657	288 843	229 240	59 603	6
	2002..	5 752	316 266	232 883	83 383	X
325920	Explosives manufacturing .....	5 657	288 843	229 240	59 603	6
	2002..	5 752	316 266	232 883	83 383	X
32599	All other chemical product and preparation manufacturing .....	91 305	5 744 861	4 591 617	1 153 243	1
	2002..	90 423	5 437 612	4 404 996	1 032 616	X
325991	Custom compounding of purchased resins .....	23 600	1 308 066	1 036 799	271 267	1
	2002..	21 992	1 167 938	925 286	242 652	X
32599N	All other miscellaneous chemical product and preparation manufacturing (including photographic) .....	67 705	4 436 795	3 554 819	881 977	1
	2002..	68 431	4 269 674	3 479 710	789 964	X
326	Plastics and rubber products manufacturing .....	933 887	41 065 941	32 164 867	8 901 074	1
	2002..	979 650	41 219 086	32 490 642	8 728 444	X
3261	Plastics product manufacturing .....	762 721	31 666 689	25 360 261	6 306 428	1
	2002..	797 784	31 767 216	25 618 380	6 148 836	X
32611	Unsupported plastics film, sheet, and bag manufacturing .....	109 011	5 415 444	4 294 282	1 121 162	1
	2002..	113 361	5 351 609	4 280 259	1 071 350	X
326111	Plastics bag manufacturing .....	34 332	1 495 177	1 217 921	277 256	1
	2002..	34 476	1 434 838	1 167 608	267 230	X
326112	Plastics packaging film and sheet (including laminated) manufacturing .....	27 995	1 471 148	1 164 933	306 215	1
	2002..	26 826	1 384 621	1 113 479	271 142	X
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	46 684	2 449 119	1 911 428	537 691	1
	2002..	52 059	2 532 150	1 999 172	532 978	X
32612	Plastics pipe, pipe fitting, and unsupported profile shape manufacturing .....	48 146	2 085 321	1 696 473	388 848	1
	2002..	51 651	2 150 905	1 743 046	407 859	X
326121	Unsupported plastics profile shape manufacturing .....	27 674	1 245 968	1 016 209	229 759	2
	2002..	30 063	1 298 226	1 053 775	244 451	X
326122	Plastics pipe and pipe fitting manufacturing .....	20 472	839 354	680 264	159 089	1
	2002..	21 588	852 679	689 271	163 408	X
32613	Laminated plastics plate, sheet, and shape manufacturing .....	10 753	519 448	419 113	100 335	4
	2002..	11 854	543 610	441 585	102 025	X
326130	Laminated plastics plate, sheet, and shape manufacturing .....	10 753	519 448	419 113	100 335	4
	2002..	11 854	543 610	441 585	102 025	X
32614	Polystyrene foam product manufacturing .....	31 375	1 277 555	1 010 065	267 490	2
	2002..	33 261	1 266 251	1 004 107	262 144	X
326140	Polystyrene foam product manufacturing .....	31 375	1 277 555	1 010 065	267 490	2
	2002..	33 261	1 266 251	1 004 107	262 144	X
32615	Urethane and other foam product (except polystyrene) manufacturing .....	32 363	1 243 977	996 730	247 246	4
	2002..	33 981	1 291 745	1 048 293	243 452	X
326150	Urethane and other foam product (except polystyrene) manufacturing .....	32 363	1 243 977	996 730	247 246	4
	2002..	33 981	1 291 745	1 048 293	243 452	X
32616	Plastics bottle manufacturing .....	32 392	1 469 838	1 129 557	340 281	2
	2002..	34 138	1 463 316	1 139 231	324 085	X
326160	Plastics bottle manufacturing .....	32 392	1 469 838	1 129 557	340 281	2
	2002..	34 138	1 463 316	1 139 231	324 085	X
32619	Other plastics product manufacturing .....	498 682	19 655 107	15 814 041	3 841 066	1
	2002..	519 538	19 699 780	15 961 859	3 737 921	X
32619M	Other plastics product manufacturing .....	498 682	19 655 107	15 814 041	3 841 066	1
	2002..	519 538	19 699 780	15 961 859	3 737 921	X
3262	Rubber product manufacturing .....	171 166	6 804 606	2 594 646	2 594 646	1
	2002..	181 866	9 451 870	6 872 262	2 579 608	X
32621	Tire manufacturing .....	65 852	4 597 028	3 155 022	1 442 006	1
	2002..	69 055	4 575 536	3 151 828	1 423 708	X
32621M	Tire manufacturing .....	65 852	4 597 028	3 155 022	1 442 006	1
	2002..	69 055	4 575 536	3 151 828	1 423 708	X
32622	Rubber and plastics hoses and belting manufacturing .....	22 269	1 068 286	776 665	291 621	1
	2002..	23 537	1 084 403	795 258	289 145	X
326220	Rubber and plastics hoses and belting manufacturing .....	22 269	1 068 286	776 665	291 621	1
	2002..	23 537	1 084 403	795 258	289 145	X

See footnotes at end of table.



**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column— D
			Total	Payroll	Total fringe benefits	
			A	B	C	
326	Plastics and rubber products manufacturing—Con.					
3262	Rubber product manufacturing—Con.					
32629	Other rubber product manufacturing .....	2003.. 83 045	3 733 939	2 872 919	861 019	1
		2002.. 89 274	3 791 931	2 925 176	866 755	X
32629M	Other rubber product manufacturing .....	2003.. 83 045	3 733 939	2 872 919	861 019	1
		2002.. 89 274	3 791 931	2 925 176	866 755	X
327	Nonmetallic mineral product manufacturing .....	2003.. 462 515	22 908 080	17 732 857	5 175 223	1
		2002.. 484 146	22 861 591	17 959 370	4 902 221	X
3271	Clay product and refractory manufacturing .....	2003.. 57 388	2 512 742	1 936 478	576 264	1
		2002.. 60 704	2 606 949	2 038 199	568 750	X
32711	Pottery, ceramics, and plumbing fixture manufacturing .....	2003.. 26 405	1 120 021	851 417	268 603	1
		2002.. 29 664	1 243 839	968 170	275 669	X
327111	Vitreous china plumbing fixture and china and earthenware bathroom accessories manufacturing .....	2003.. 7 153	320 673	236 279	84 395	2
		2002.. 8 054	367 473	282 537	84 936	X
327112	Vitreous china, fine earthenware, and other pottery product manufacturing .....	2003.. 11 449	402 477	312 997	89 480	2
		2002.. 12 949	440 783	346 838	93 945	X
327113	Porcelain electrical supply manufacturing .....	2003.. 7 803	396 870	302 141	94 728	2
		2002.. 8 661	435 583	338 795	96 788	X
32712	Clay building material and refractories manufacturing .....	2003.. 30 983	1 392 722	1 085 061	307 661	1
		2002.. 31 040	1 363 110	1 070 029	293 081	X
327121	Brick and structural clay tile manufacturing .....	2003.. 13 460	540 782	438 685	102 097	2
		2002.. 13 201	527 811	429 744	98 067	X
327122	Ceramic wall and floor tile manufacturing .....	2003.. 6 498	253 633	203 476	50 157	1
		2002.. 6 482	251 724	202 466	49 258	X
327123	Other structural clay product manufacturing .....	2003.. 1 649	72 405	55 682	16 724	1
		2002.. 1 683	70 407	55 756	14 651	X
32712N	Refractory manufacturing .....	2003.. 9 376	525 901	387 217	138 683	3
		2002.. 9 674	513 168	382 063	131 105	X
3272	Glass and glass product manufacturing .....	2003.. 107 846	5 815 574	4 211 053	1 604 521	1
		2002.. 115 708	5 891 702	4 403 086	1 488 616	X
32721	Glass and glass product manufacturing .....	2003.. 107 846	5 815 574	4 211 053	1 604 521	1
		2002.. 115 708	5 891 702	4 403 086	1 488 616	X
327211	Flat glass manufacturing .....	2003.. 10 323	711 259	473 697	237 561	1
		2002.. 10 683	675 795	469 781	206 014	X
327212	Other pressed and blown glass and glassware manufacturing .....	2003.. 25 051	1 401 336	984 621	416 715	1
		2002.. 27 780	1 494 436	1 085 824	408 612	X
327213	Glass container manufacturing .....	2003.. 15 501	1 047 169	743 860	303 309	2
		2002.. 16 102	1 048 990	760 453	288 537	X
327215	Glass product manufacturing made of purchased glass .....	2003.. 56 971	2 655 810	2 008 875	646 935	3
		2002.. 61 143	2 672 481	2 087 028	585 453	X
3273	Cement and concrete product manufacturing .....	2003.. 210 209	9 994 852	8 012 746	1 982 105	1
		2002.. 218 545	9 922 883	8 015 863	1 907 020	X
32731	Cement manufacturing .....	2003.. 17 374	1 194 583	901 341	293 241	1
		2002.. 17 660	1 165 481	890 528	274 953	X
327310	Cement manufacturing .....	2003.. 17 374	1 194 583	901 341	293 241	1
		2002.. 17 660	1 165 481	890 528	274 953	X
32732	Ready-mix concrete manufacturing .....	2003.. 97 082	4 685 162	3 770 058	915 104	2
		2002.. 98 969	4 521 952	3 661 822	860 130	X
327320	Ready-mix concrete manufacturing .....	2003.. 97 082	4 685 162	3 770 058	915 104	2
		2002.. 98 969	4 521 952	3 661 822	860 130	X
32733	Concrete pipe, brick, and block manufacturing .....	2003.. 34 658	1 637 307	1 322 254	315 053	2
		2002.. 35 711	1 601 128	1 297 319	303 809	X
32733M	Concrete pipe, brick, and block manufacturing .....	2003.. 34 658	1 637 307	1 322 254	315 053	2
		2002.. 35 711	1 601 128	1 297 319	303 809	X
32739	Other concrete product manufacturing .....	2003.. 61 094	2 477 800	2 019 093	458 707	2
		2002.. 66 205	2 634 322	2 166 194	468 128	X
327390	Other concrete product manufacturing .....	2003.. 61 094	2 477 800	2 019 093	458 707	2
		2002.. 66 205	2 634 322	2 166 194	468 128	X
3274	Lime and gypsum product manufacturing .....	2003.. 16 373	950 460	743 643	206 817	1
		2002.. 16 447	886 115	707 592	178 523	X
32741	Lime manufacturing .....	2003.. 3 634	212 952	164 913	48 039	2
		2002.. 3 978	221 593	172 619	48 974	X
327410	Lime manufacturing .....	2003.. 3 634	212 952	164 913	48 039	2
		2002.. 3 978	221 593	172 619	48 974	X
32742	Gypsum product manufacturing .....	2003.. 12 739	737 508	578 730	158 778	2
		2002.. 12 469	664 522	534 973	129 549	X
327420	Gypsum product manufacturing .....	2003.. 12 739	737 508	578 730	158 778	2
		2002.. 12 469	664 522	534 973	129 549	X
3279	Other nonmetallic mineral product manufacturing .....	2003.. 70 699	3 634 452	2 828 936	805 516	1
		2002.. 72 742	3 553 942	2 794 630	759 312	X
32791	Abrasive product manufacturing .....	2003.. 15 354	859 963	669 363	190 601	1
		2002.. 17 040	889 076	693 664	195 412	X
327910	Abrasive product manufacturing .....	2003.. 15 354	859 963	669 363	190 601	1
		2002.. 17 040	889 076	693 664	195 412	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—	
			Total	Payroll	Total fringe benefits		
			A	B	C		D
327	Nonmetallic mineral product manufacturing—Con.						
3279	Other nonmetallic mineral product manufacturing—Con.						
32799	All other nonmetallic mineral product manufacturing .....	2003..	55 345	2 774 489	2 159 574	614 915	1
		2002..	55 702	2 664 866	2 100 966	563 900	X
327991	Cut stone and stone product manufacturing .....	2003..	21 150	887 284	718 440	168 844	3
		2002..	20 674	845 096	689 529	155 567	X
327992	Ground or treated mineral and earth manufacturing .....	2003..	7 428	404 708	309 088	95 620	4
		2002..	6 838	362 720	278 821	83 899	X
327993	Mineral wool manufacturing .....	2003..	17 787	1 074 296	803 636	270 659	2
		2002..	19 313	1 065 061	814 327	250 734	X
327999	All other miscellaneous nonmetallic mineral product manufacturing .....	2003..	8 980	408 201	328 409	79 792	2
		2002..	8 877	391 989	318 289	73 700	X
331	Primary metal manufacturing .....	2003..	455 527	27 405 147	20 196 490	7 208 658	1
		2002..	490 736	28 744 617	21 411 688	7 332 929	X
3311	Iron and steel mills and ferroalloy manufacturing .....	2003..	108 839	8 362 389	5 919 000	2 443 389	1
		2002..	119 881	8 959 475	6 296 268	2 663 207	X
33111	Iron and steel mills and ferroalloy manufacturing .....	2003..	108 839	8 362 389	5 919 000	2 443 389	1
		2002..	119 881	8 959 475	6 296 268	2 663 207	X
33111M	Iron and steel mills and ferroalloy manufacturing .....	2003..	108 839	8 362 389	5 919 000	2 443 389	1
		2002..	119 881	8 959 475	6 296 268	2 663 207	X
3312	Steel product manufacturing from purchased steel .....	2003..	48 347	2 600 949	1 969 114	631 835	1
		2002..	52 117	2 737 137	2 117 699	619 438	X
33121	Iron and steel pipe and tube manufacturing from purchased steel .....	2003..	20 459	1 070 881	820 874	250 007	2
		2002..	21 148	1 086 671	847 511	239 160	X
331210	Iron and steel pipe and tube manufacturing from purchased steel .....	2003..	20 459	1 070 881	820 874	250 007	2
		2002..	21 148	1 086 671	847 511	239 160	X
33122	Rolling and drawing of purchased steel .....	2003..	27 888	1 530 068	1 148 240	381 828	1
		2002..	30 969	1 650 466	1 270 188	380 278	X
33122M	Rolling and drawing of purchased steel .....	2003..	27 888	1 530 068	1 148 240	381 828	1
		2002..	30 969	1 650 466	1 270 188	380 278	X
3313	Alumina and aluminum production and processing .....	2003..	70 472	4 140 176	2 973 407	1 166 769	1
		2002..	71 030	4 209 728	3 143 536	1 066 192	X
33131	Alumina and aluminum production and processing .....	2003..	70 472	4 140 176	2 973 407	1 166 769	1
		2002..	71 030	4 209 728	3 143 536	1 066 192	X
331311	Alumina refining .....	2003..	1 644	134 042	87 909	46 134	1
		2002..	1 554	124 493	89 451	35 042	X
331312	Primary aluminum production .....	2003..	11 094	824 035	544 077	279 958	1
		2002..	12 476	891 034	654 410	236 624	X
331314	Secondary smelting and alloying of aluminum .....	2003..	6 442	341 769	258 504	83 265	2
		2002..	5 995	333 760	258 081	75 679	X
331316	Aluminum extruded product manufacturing .....	2003..	25 980	1 240 269	945 014	295 255	2
		2002..	27 511	1 282 847	988 623	294 224	X
33131N	Aluminum rolling and drawing .....	2003..	25 311	1 600 061	1 137 903	462 157	1
		2002..	23 494	1 577 594	1 152 971	424 623	X
3314	Nonferrous metal (except aluminum) production and processing .....	2003..	60 826	3 539 154	2 674 247	864 906	1
		2002..	67 234	3 768 870	2 862 139	906 731	X
33141	Nonferrous metal (except aluminum) smelting and refining .....	2003..	8 408	540 564	402 830	137 734	1
		2002..	10 235	630 409	470 088	160 321	X
331411	Primary smelting and refining of copper .....	2003..	1 469	91 555	64 482	27 073	1
		2002..	2 674	159 403	110 798	48 605	X
331419	Primary smelting and refining of nonferrous metal (except copper and aluminum) .....	2003..	6 939	449 009	338 348	110 661	2
		2002..	7 561	471 006	359 290	111 716	X
33142	Copper rolling, drawing, extruding, and alloying .....	2003..	26 812	1 494 938	1 123 632	371 306	1
		2002..	29 558	1 586 523	1 198 603	387 920	X
33142M	Copper rolling, drawing, extruding, and alloying .....	2003..	26 812	1 494 938	1 123 632	371 306	1
		2002..	29 558	1 586 523	1 198 603	387 920	X
33149	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying .....	2003..	25 606	1 503 651	1 147 785	355 866	1
		2002..	27 441	1 551 938	1 193 448	358 490	X
33149M	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying .....	2003..	25 606	1 503 651	1 147 785	355 866	1
		2002..	27 441	1 551 938	1 193 448	358 490	X
3315	Foundries .....	2003..	167 044	8 762 479	6 660 721	2 101 758	1
		2002..	180 474	9 069 407	6 992 046	2 077 361	X
33151	Ferrous metal foundries .....	2003..	89 850	5 142 616	3 842 335	1 300 281	1
		2002..	99 931	5 432 168	4 123 531	1 308 637	X
33151M	Ferrous metal foundries .....	2003..	89 850	5 142 616	3 842 335	1 300 281	1
		2002..	99 931	5 432 168	4 123 531	1 308 637	X
33152	Nonferrous metal foundries .....	2003..	77 193	3 619 864	2 818 387	801 477	2
		2002..	80 543	3 637 239	2 868 515	768 724	X
33152N	Aluminum foundries .....	2003..	52 650	2 481 568	1 931 771	549 797	3
		2002..	54 574	2 524 709	1 985 736	538 973	X
33152P	Foundries not aluminum .....	2003..	24 543	1 138 295	886 615	251 680	2
		2002..	25 969	1 112 530	882 779	229 751	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—	
			Total	Payroll	Total fringe benefits		
			A	B	C		D
332	Fabricated metal product manufacturing .....	2003..	1 484 059	69 018 988	55 881 631	13 137 357	1
		2002..	1 573 613	70 537 513	57 431 314	13 106 199	X
3321	Forging and stamping .....	2003..	121 118	5 832 564	4 670 683	1 161 881	1
		2002..	127 440	5 958 280	4 812 058	1 146 222	X
33211	Forging and stamping .....	2003..	121 118	5 832 564	4 670 683	1 161 881	1
		2002..	127 440	5 958 280	4 812 058	1 146 222	X
332114	Custom roll forming .....	2003..	17 085	800 847	648 315	152 532	3
		2002..	17 391	784 447	644 652	139 795	X
332117	Powder metallurgy parts manufacturing .....	2003..	8 595	391 664	307 884	83 781	4
		2002..	9 102	405 537	324 973	80 564	X
33211N	Forging .....	2003..	27 685	1 587 422	1 213 131	374 291	1
		2002..	31 557	1 674 062	1 296 003	378 059	X
33211P	Crown, closure, and metal stamping manufacturing .....	2003..	67 754	3 052 630	2 501 353	551 277	2
		2002..	69 390	3 094 234	2 546 430	547 804	X
3322	Cutlery and handtool manufacturing .....	2003..	57 097	2 787 787	2 172 886	614 901	1
		2002..	61 759	2 939 864	2 308 725	631 139	X
33221	Cutlery and hand tool manufacturing .....	2003..	57 097	2 787 787	2 172 886	614 901	1
		2002..	61 759	2 939 864	2 308 725	631 139	X
33221N	Cutlery, kitchen utensil, pot, and pan manufacturing .....	2003..	12 676	695 710	519 750	175 960	2
		2002..	12 725	687 348	518 883	168 465	X
33221P	Hand tool and saw blade manufacturing .....	2003..	44 421	2 092 077	1 653 137	438 941	1
		2002..	49 034	2 252 516	1 789 842	462 674	X
3323	Architectural and structural metals manufacturing .....	2003..	371 966	16 045 524	13 154 721	2 890 804	1
		2002..	387 655	16 333 770	13 485 418	2 848 352	X
33231	Plate work and fabricated structural product manufacturing .....	2003..	152 544	7 021 131	5 739 139	1 281 991	1
		2002..	162 787	7 265 861	6 014 569	1 251 292	X
33231M	Plate work and fabricated structural product manufacturing .....	2003..	152 544	7 021 131	5 739 139	1 281 991	1
		2002..	162 787	7 265 861	6 014 569	1 251 292	X
33232	Ornamental and architectural metal work manufacturing .....	2003..	219 422	9 024 394	7 415 581	1 608 812	1
		2002..	224 868	9 067 909	7 470 849	1 597 060	X
33232M	Ornamental and architectural metal work manufacturing .....	2003..	219 422	9 024 394	7 415 581	1 608 812	1
		2002..	224 868	9 067 909	7 470 849	1 597 060	X
3324	Boiler, tank, and shipping container manufacturing .....	2003..	85 347	4 554 741	3 552 428	1 002 313	1
		2002..	89 285	4 537 478	3 559 590	977 888	X
33241	Power boiler and heat exchanger manufacturing .....	2003..	18 856	978 098	792 346	185 752	4
		2002..	19 743	995 141	792 267	202 874	X
332410	Power boiler and heat exchanger manufacturing .....	2003..	18 856	978 098	792 346	185 752	4
		2002..	19 743	995 141	792 267	202 874	X
33242	Metal tank (heavy gauge) manufacturing .....	2003..	29 575	1 430 458	1 159 022	271 436	2
		2002..	31 113	1 466 332	1 188 473	277 859	X
332420	Metal tank (heavy gauge) manufacturing .....	2003..	29 575	1 430 458	1 159 022	271 436	2
		2002..	31 113	1 466 332	1 188 473	277 859	X
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	2003..	36 915	2 146 186	1 601 060	545 125	1
		2002..	38 429	2 076 005	1 578 850	497 155	X
33243M	Metal can, box, and other metal container (light gauge) manufacturing .....	2003..	36 915	2 146 186	1 601 060	545 125	1
		2002..	38 429	2 076 005	1 578 850	497 155	X
3325	Hardware manufacturing .....	2003..	55 763	2 529 937	1 965 842	564 096	1
		2002..	60 966	2 685 271	2 078 759	606 512	X
33251	Hardware manufacturing .....	2003..	55 763	2 529 937	1 965 842	564 096	1
		2002..	60 966	2 685 271	2 078 759	606 512	X
332510	Hardware manufacturing .....	2003..	55 763	2 529 937	1 965 842	564 096	1
		2002..	60 966	2 685 271	2 078 759	606 512	X
3326	Spring and wire product manufacturing .....	2003..	62 294	2 477 909	2 035 213	442 696	2
		2002..	63 516	2 463 719	2 027 075	436 644	X
33261	Spring and wire product manufacturing .....	2003..	62 294	2 477 909	2 035 213	442 696	2
		2002..	63 516	2 463 719	2 027 075	436 644	X
33261M	Spring and wire product manufacturing .....	2003..	62 294	2 477 909	2 035 213	442 696	2
		2002..	63 516	2 463 719	2 027 075	436 644	X
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	2003..	336 608	15 919 593	13 358 744	2 560 848	1
		2002..	362 123	16 130 399	13 609 900	2 520 499	X
33271	Machine shops .....	2003..	221 895	10 376 914	8 840 682	1 536 233	1
		2002..	241 155	10 537 100	9 010 851	1 526 249	X
332710	Machine shops .....	2003..	221 895	10 376 914	8 840 682	1 536 233	1
		2002..	241 155	10 537 100	9 010 851	1 526 249	X
33272	Turned product and screw, nut, and bolt manufacturing .....	2003..	114 713	5 542 678	4 518 063	1 024 616	1
		2002..	120 968	5 593 299	4 599 049	994 250	X
332721	Precision turned product manufacturing .....	2003..	70 538	3 261 131	2 726 298	534 833	1
		2002..	76 171	3 324 431	2 803 226	521 205	X
332722	Bolt, nut, screw, rivet, and washer manufacturing .....	2003..	44 175	2 281 547	1 791 765	489 783	1
		2002..	44 797	2 268 868	1 795 823	473 045	X
3328	Coating, engraving, heat treating, and allied activities .....	2003..	127 594	5 340 438	4 428 084	912 354	2
		2002..	138 010	5 625 975	4 682 239	943 736	X
33281	Coating, engraving, heat treating, and allied activities .....	2003..	127 594	5 340 438	4 428 084	912 354	2
		2002..	138 010	5 625 975	4 682 239	943 736	X
33281M	Coating, engraving, heat treating, and allied activities .....	2003..	127 594	5 340 438	4 428 084	912 354	2
		2002..	138 010	5 625 975	4 682 239	943 736	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—
			Total	Payroll	Total fringe benefits	
			A	B	C	
332	Fabricated metal product manufacturing—Con.					
3329	Other fabricated metal product manufacturing .....	2003.. 266 272	13 530 495	10 543 030	2 987 465	1
		2002.. 282 859	13 862 757	10 867 550	2 995 207	X
33291	Metal valve manufacturing .....	2003.. 101 269	5 399 761	4 172 830	1 226 931	1
		2002.. 109 265	5 543 129	4 307 067	1 236 062	X
332913	Plumbing fixture fitting and trim manufacturing .....	2003.. 12 444	609 839	464 358	145 481	1
		2002.. 13 961	627 129	480 264	146 865	X
33291N	Valve and fitting (except plumbing) manufacturing .....	2003.. 88 825	4 789 922	3 708 472	1 081 451	1
		2002.. 95 304	4 916 000	3 826 803	1 089 197	X
33299	All other fabricated metal product manufacturing .....	2003.. 165 003	8 130 734	6 370 200	1 760 534	1
		2002.. 173 594	8 319 628	6 560 483	1 759 145	X
332991	Ball and roller bearing manufacturing .....	2003.. 27 197	1 531 158	1 091 662	439 496	1
		2002.. 29 058	1 644 963	1 198 738	446 225	X
332992	Small arms ammunition manufacturing .....	2003.. 6 956	384 776	296 795	87 982	1
		2002.. 6 740	361 626	269 205	92 421	X
332993	Ammunition (except small arms) manufacturing .....	2003.. 6 750	400 439	303 690	96 750	1
		2002.. 6 925	391 066	299 663	91 403	X
332994	Small arms manufacturing .....	2003.. 11 015	555 755	437 288	118 487	1
		2002.. 9 956	502 669	398 256	104 413	X
332995	Other ordnance and accessories manufacturing .....	2003.. 4 308	323 022	259 958	63 064	2
		2002.. 5 116	350 258	287 922	62 336	X
332996	Fabricated pipe and pipe fitting manufacturing .....	2003.. 23 630	1 008 155	818 465	189 690	3
		2002.. 26 143	1 064 856	880 088	184 768	X
33299N	Other fabricated metal products manufacturing .....	2003.. 85 145	3 927 429	3 162 364	765 065	1
		2002.. 89 656	4 004 190	3 226 611	777 579	X
333	Machinery manufacturing .....	2003.. 1 101 146	60 981 120	48 123 027	12 858 093	1
		2002.. 1 174 204	62 385 344	49 830 844	12 554 500	X
3331	Agriculture, construction, and mining machinery manufacturing .....	2003.. 168 957	9 230 860	6 927 976	2 302 884	1
		2002.. 170 930	9 157 538	7 025 097	2 132 441	X
33311	Agricultural implement manufacturing .....	2003.. 77 352	3 810 836	2 814 848	995 989	1
		2002.. 76 212	3 667 965	2 778 645	889 320	X
333111	Farm machinery and equipment manufacturing .....	2003.. 54 753	2 859 770	2 110 367	749 403	2
		2002.. 54 177	2 761 025	2 098 566	662 459	X
333112	Lawn and garden tractor and home lawn and garden equipment manufacturing .....	2003.. 22 599	951 066	704 480	246 586	1
		2002.. 22 035	906 940	680 079	226 861	X
33312	Construction machinery manufacturing .....	2003.. 54 160	3 199 517	2 348 915	850 602	1
		2002.. 57 335	3 350 594	2 534 167	816 427	X
333120	Construction machinery manufacturing .....	2003.. 54 160	3 199 517	2 348 915	850 602	1
		2002.. 57 335	3 350 594	2 534 167	816 427	X
33313	Mining and oil and gas field machinery manufacturing .....	2003.. 37 444	2 220 506	1 764 213	456 293	3
		2002.. 37 383	2 138 979	1 712 285	426 694	X
33313M	Mining and oil and gas field machinery manufacturing .....	2003.. 37 444	2 220 506	1 764 213	456 293	3
		2002.. 37 383	2 138 979	1 712 285	426 694	X
3332	Industrial machinery manufacturing .....	2003.. 144 305	8 807 564	7 270 232	1 537 332	1
		2002.. 159 375	9 318 500	7 761 835	1 556 665	X
33321	Sawmill and woodworking machinery manufacturing .....	2003.. 6 886	330 663	273 104	57 559	3
		2002.. 7 135	331 000	272 909	58 091	X
333210	Sawmill and woodworking machinery manufacturing .....	2003.. 6 886	330 663	273 104	57 559	3
		2002.. 7 135	331 000	272 909	58 091	X
33322	Plastics and rubber industry machinery manufacturing .....	2003.. 14 758	883 267	703 413	179 854	2
		2002.. 16 544	927 066	747 061	180 005	X
333220	Plastics and rubber industry machinery manufacturing .....	2003.. 14 758	883 267	703 413	179 854	2
		2002.. 16 544	927 066	747 061	180 005	X
33329	Other industrial machinery manufacturing .....	2003.. 122 661	7 593 634	6 293 715	1 299 919	1
		2002.. 135 696	8 060 434	6 741 865	1 318 569	X
333295	Semiconductor machinery manufacturing .....	2003.. 35 553	2 552 716	2 158 281	394 434	1
		2002.. 39 195	2 793 888	2 402 984	390 904	X
33329N	Other machinery manufacturing .....	2003.. 87 108	5 040 919	4 135 434	905 485	1
		2002.. 96 501	5 266 546	4 338 881	927 665	X
3333	Commercial and service industry machinery manufacturing .....	2003.. 96 008	5 193 039	4 128 985	1 064 054	1
		2002.. 103 773	5 359 872	4 312 291	1 047 581	X
33331	Commercial and service industry machinery manufacturing .....	2003.. 96 008	5 193 039	4 128 985	1 064 054	1
		2002.. 103 773	5 359 872	4 312 291	1 047 581	X
333313	Office machinery manufacturing .....	2003.. 7 137	403 562	335 328	68 235	2
		2002.. 10 206	549 866	451 707	98 159	X
333314	Optical instrument and lens manufacturing .....	2003.. 19 281	1 127 477	911 663	215 814	2
		2002.. 19 262	1 089 219	895 416	193 803	X
333315	Photographic and photocopying equipment manufacturing .....	2003.. 8 566	457 864	365 077	92 787	2
		2002.. 9 809	507 032	403 666	103 366	X
33331N	All other commercial and service industry machinery manufacturing .....	2003.. 61 025	3 204 137	2 516 918	687 219	2
		2002.. 64 496	3 213 755	2 561 502	652 253	X
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	2003.. 147 797	6 879 515	5 301 875	1 577 640	1
		2002.. 154 371	6 890 466	5 372 031	1 518 435	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—
			Total	Payroll	Total fringe benefits	
			A	B	C	
333	Machinery manufacturing—Con.					
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing—Con.					
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing . . . . .	2003.. 147 797	6 879 515	5 301 875	1 577 640	1
		2002.. 154 371	6 890 466	5 372 031	1 518 435	X
333414	Heating equipment (except warm air furnaces) manufacturing . . . . .	2003.. 20 324	934 106	739 389	194 718	2
		2002.. 22 255	954 017	758 849	195 168	X
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing . . . . .	2003.. 101 644	4 843 818	3 670 145	1 173 672	1
		2002.. 104 907	4 804 057	3 698 417	1 105 640	X
33341N	Ventilation equipment manufacturing . . . . .	2003.. 25 830	1 101 591	892 341	209 250	3
		2002.. 27 209	1 132 392	914 765	217 627	X
3335	Metalworking machinery manufacturing . . . . .	2003.. 174 260	9 578 086	7 950 453	1 627 633	1
		2002.. 192 490	10 094 535	8 430 942	1 663 593	X
33351	Metalworking machinery manufacturing . . . . .	2003.. 174 260	9 578 086	7 950 453	1 627 633	1
		2002.. 192 490	10 094 535	8 430 942	1 663 593	X
333511	Industrial mold manufacturing . . . . .	2003.. 42 077	2 277 323	1 910 355	366 968	2
		2002.. 46 604	2 399 979	2 027 138	372 841	X
333512	Machine tool (metal cutting types) manufacturing . . . . .	2003.. 17 242	1 025 802	858 099	167 703	2
		2002.. 18 261	1 081 924	907 724	174 200	X
333513	Machine tool (metal forming types) manufacturing . . . . .	2003.. 7 457	446 022	360 423	85 599	2
		2002.. 7 371	424 818	346 077	78 741	X
333514	Special die and tool, die set, jig, and fixture manufacturing . . . . .	2003.. 55 469	3 062 072	2 573 243	488 829	2
		2002.. 60 568	3 125 054	2 645 213	479 841	X
333515	Cutting tool and machine tool accessory manufacturing . . . . .	2003.. 36 854	1 837 256	1 477 139	360 118	1
		2002.. 40 240	1 935 582	1 562 565	373 017	X
333516	Rolling mill machinery and equipment manufacturing . . . . .	2003.. 2 547	154 259	125 559	28 700	4
		2002.. 2 754	169 270	139 873	29 397	X
333518	Other metalworking machinery manufacturing . . . . .	2003.. 12 613	775 352	645 636	129 716	2
		2002.. 16 692	957 908	802 352	155 556	X
3336	Engine, turbine, and power transmission equipment manufacturing . . . . .	2003.. 87 820	5 662 187	4 184 299	1 477 889	1
		2002.. 97 199	5 835 935	4 355 284	1 480 651	X
33361	Engine, turbine, and power transmission equipment manufacturing . . . . .	2003.. 87 820	5 662 187	4 184 299	1 477 889	1
		2002.. 97 199	5 835 935	4 355 284	1 480 651	X
333611	Turbine and turbine generator set unit manufacturing . . . . .	2003.. 16 243	1 197 884	934 245	263 638	2
		2002.. 19 486	1 306 128	1 004 848	301 280	X
333612	Speed changer, industrial high-speed drive, and gear manufacturing . . . . .	2003.. 12 346	684 362	521 779	162 583	1
		2002.. 13 237	704 943	547 444	157 499	X
333613	Mechanical power transmission equipment manufacturing . . . . .	2003.. 15 682	847 959	649 997	197 961	2
		2002.. 16 395	855 615	657 830	197 785	X
333618	Other engine equipment manufacturing . . . . .	2003.. 43 549	2 931 984	2 078 278	853 706	1
		2002.. 48 081	2 969 249	2 145 162	824 087	X
3339	Other general purpose machinery manufacturing . . . . .	2003.. 281 999	15 629 868	12 359 208	3 270 661	2
		2002.. 296 066	15 728 498	12 573 364	3 155 134	X
33391	Pump and compressor manufacturing . . . . .	2003.. 58 155	3 306 652	2 554 171	752 480	7
		2002.. 55 845	3 116 850	2 461 885	654 965	X
333911	Pump and pumping equipment manufacturing . . . . .	2003.. 31 327	1 792 476	1 402 987	389 489	2
		2002.. 32 122	1 763 975	1 401 003	362 972	X
333912	Air and gas compressor manufacturing . . . . .	2003.. 22 816	1 272 210	966 778	305 432	17
		2002.. 19 675	1 131 769	884 192	247 577	X
333913	Measuring and dispensing pump manufacturing . . . . .	2003.. 4 012	241 966	184 407	57 559	1
		2002.. 4 048	221 106	176 690	44 416	X
33392	Material handling equipment manufacturing . . . . .	2003.. 75 214	4 026 570	3 216 488	810 082	1
		2002.. 81 527	4 119 877	3 304 121	815 756	X
33392M	Material handling equipment manufacturing . . . . .	2003.. 75 214	4 026 570	3 216 488	810 082	1
		2002.. 81 527	4 119 877	3 304 121	815 756	X
33399	All other general purpose machinery manufacturing . . . . .	2003.. 148 630	8 296 646	6 588 548	1 708 098	1
		2002.. 158 694	8 491 771	6 807 358	1 684 413	X
333991	Power-driven hand tool manufacturing . . . . .	2003.. 10 746	541 191	412 901	128 290	1
		2002.. 12 259	568 595	436 726	131 869	X
333993	Packaging machinery manufacturing . . . . .	2003.. 23 808	1 381 093	1 131 196	249 896	4
		2002.. 24 681	1 417 288	1 166 188	251 100	X
333994	Industrial process furnace and oven manufacturing . . . . .	2003.. 10 428	552 010	451 669	100 341	3
		2002.. 11 590	579 315	475 040	104 275	X
33399N	Fluid power equipment manufacturing . . . . .	2003.. 30 919	1 801 384	1 364 157	437 227	1
		2002.. 32 009	1 779 392	1 369 308	410 084	X
33399P	All other miscellaneous general purpose machinery manufacturing . . . . .	2003.. 72 729	4 020 969	3 228 625	792 343	1
		2002.. 78 155	4 147 181	3 360 096	787 085	X
334	Computer and electronic product manufacturing . . . . .	2003.. 1 162 971	78 209 358	63 097 258	15 112 101	1
		2002.. 1 261 226	79 613 669	64 434 772	15 178 897	X
3341	Computer and peripheral equipment manufacturing . . . . .	2003.. 142 248	10 241 534	8 529 051	1 712 483	1
		2002.. 150 143	9 860 336	8 238 221	1 622 115	X
33411	Computer and peripheral equipment manufacturing . . . . .	2003.. 142 248	10 241 534	8 529 051	1 712 483	1
		2002.. 150 143	9 860 336	8 238 221	1 622 115	X
334111	Electronic computer manufacturing . . . . .	2003.. 66 322	4 753 201	4 016 943	736 258	1
		2002.. 62 272	3 874 764	3 275 912	598 852	X
334112	Computer storage device manufacturing . . . . .	2003.. 19 929	1 640 321	1 320 088	320 232	1
		2002.. 26 308	1 928 934	1 590 038	338 896	X
334113	Computer terminal manufacturing . . . . .	2003.. 2 020	113 288	95 478	17 810	1
		2002.. 1 949	101 996	85 994	16 002	X
334119	Other computer peripheral equipment manufacturing . . . . .	2003.. 53 977	3 734 724	3 096 541	638 183	2
		2002.. 59 614	3 954 642	3 286 277	668 365	X

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—
			Total	Payroll	Total fringe benefits	
334	Computer and electronic product manufacturing—Con.					
3342	Communications equipment manufacturing .....	163 524	11 545 239	9 248 950	2 296 289	2
	2002..	190 578	12 763 174	10 298 014	2 465 160	X
33421	Telephone apparatus manufacturing .....	45 935	3 605 881	2 986 639	619 242	3
	2002..	64 455	4 515 780	3 742 129	773 651	X
334210	Telephone apparatus manufacturing .....	45 935	3 605 881	2 986 639	619 242	3
	2002..	64 455	4 515 780	3 742 129	773 651	X
33422	Radio and television broadcasting and wireless communications equipment manufacturing .....	95 100	6 690 298	5 251 303	1 438 995	3
	2002..	100 556	6 812 093	5 408 717	1 403 376	X
334220	Radio and television broadcasting and wireless communications equipment manufacturing .....	95 100	6 690 298	5 251 303	1 438 995	3
	2002..	100 556	6 812 093	5 408 717	1 403 376	X
33429	Other communications equipment manufacturing .....	22 489	1 249 060	1 011 007	238 053	1
	2002..	25 567	1 435 301	1 147 168	288 133	X
334290	Other communications equipment manufacturing .....	22 489	1 249 060	1 011 007	238 053	1
	2002..	25 567	1 435 301	1 147 168	288 133	X
3343	Audio and video equipment manufacturing .....	25 010	1 221 268	996 383	224 885	1
	2002..	25 576	1 192 996	974 273	218 723	X
33431	Audio and video equipment manufacturing .....	25 010	1 221 268	996 383	224 885	1
	2002..	25 576	1 192 996	974 273	218 723	X
334310	Audio and video equipment manufacturing .....	25 010	1 221 268	996 383	224 885	1
	2002..	25 576	1 192 996	974 273	218 723	X
3344	Semiconductor and other electronic component manufacturing .....	388 741	22 928 339	18 613 856	4 314 483	1
	2002..	437 198	24 434 795	19 893 619	4 541 176	X
33441	Semiconductor and other electronic component manufacturing .....	388 741	22 928 339	18 613 856	4 314 483	1
	2002..	437 198	24 434 795	19 893 619	4 541 176	X
334411	Electron tube manufacturing .....	9 163	509 574	381 560	128 013	1
	2002..	11 341	639 158	480 215	158 943	X
334412	Bare printed circuit board manufacturing .....	41 241	1 770 554	1 476 246	294 309	3
	2002..	46 962	2 011 708	1 660 002	351 706	X
334413	Semiconductor and related device manufacturing .....	149 960	11 460 836	9 234 011	2 226 825	1
	2002..	169 134	12 071 202	9 804 385	2 266 817	X
334414	Electronic capacitor manufacturing .....	9 075	408 454	322 514	85 940	4
	2002..	10 937	483 961	383 510	100 451	X
334415	Electronic resistor manufacturing .....	6 534	255 393	205 274	50 120	3
	2002..	5 518	218 744	176 212	42 532	X
334416	Electronic coil, transformer, and other inductor manufacturing .....	11 487	421 670	348 302	73 368	3
	2002..	11 386	399 263	332 933	66 330	X
334417	Electronic connector manufacturing .....	22 921	1 116 340	899 742	216 598	1
	2002..	24 825	1 142 317	929 057	213 260	X
334418	Printed circuit assembly (electronic assembly) manufacturing .....	76 357	4 091 237	3 373 421	717 816	2
	2002..	86 593	4 238 664	3 480 238	758 426	X
334419	Other electronic component manufacturing .....	62 004	2 894 280	2 372 787	521 493	1
	2002..	70 502	3 229 778	2 647 067	582 711	X
3345	Navigational, measuring, electromedical, and control instruments manufacturing .....	406 756	30 548 926	24 306 491	6 242 435	1
	2002..	418 898	29 647 654	23 633 741	6 013 913	X
33451	Navigational, measuring, medical, and control instruments manufacturing .....	406 756	30 548 926	24 306 491	6 242 435	1
	2002..	418 898	29 647 654	23 633 741	6 013 913	X
334510	Electromedical and electrotherapeutic apparatus manufacturing .....	58 384	4 054 403	3 315 505	738 898	1
	2002..	59 223	3 850 862	3 160 193	690 669	X
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	151 284	13 136 029	10 095 439	3 040 590	1
	2002..	143 325	11 831 578	9 172 385	2 659 193	X
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use .....	18 034	857 990	677 749	180 240	1
	2002..	18 166	858 865	680 846	178 019	X
334513	Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables .....	35 961	2 135 036	1 732 220	402 816	1
	2002..	39 790	2 296 161	1 879 133	417 028	X
334514	Totalizing fluid meter and counting device manufacturing .....	15 097	901 484	666 258	235 226	1
	2002..	16 542	954 694	734 619	220 075	X
334515	Instrument manufacturing for measuring and testing electricity and electrical signals .....	47 929	3 729 660	3 116 577	613 083	1
	2002..	57 117	4 214 007	3 367 648	846 359	X
334516	Analytical laboratory instrument manufacturing .....	33 567	2 542 003	2 084 899	457 105	1
	2002..	34 010	2 458 944	2 000 851	458 093	X
334517	Irradiation apparatus manufacturing .....	12 704	1 089 506	904 482	185 024	1
	2002..	13 353	972 492	821 993	150 499	X
334518	Watch, clock, and parts manufacturing .....	2 793	125 268	102 319	22 949	6
	2002..	3 570	157 029	126 034	30 995	X
334519	Other measuring and controlling device manufacturing .....	31 003	1 977 548	1 611 044	366 504	3
	2002..	33 802	2 053 022	1 690 039	362 983	X
3346	Manufacturing and reproducing magnetic and optical media .....	36 691	1 724 053	1 402 526	321 526	2
	2002..	38 833	1 714 714	1 396 904	317 810	X
33461	Manufacturing and reproducing magnetic and optical media .....	36 691	1 724 053	1 402 526	321 526	2
	2002..	38 833	1 714 714	1 396 904	317 810	X
334611	Software reproducing .....	2 553	123 696	105 059	18 637	15
	2002..	2 721	138 710	117 329	21 381	X
334612	Prerecorded compact disc (except software), tape, and record reproducing .....	27 039	1 109 027	902 150	206 877	2
	2002..	29 438	1 200 924	985 530	215 394	X
334613	Magnetic and optical recording media manufacturing .....	7 099	491 330	395 317	96 013	4
	2002..	6 674	375 080	294 045	81 035	X

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—	
			Total	Payroll	Total fringe benefits		
			A	B	C		D
335	Electrical equipment, appliance, and component manufacturing .....	2003..	453 299	22 417 319	17 265 769	5 151 549	1
		2002..	494 722	23 218 553	18 085 414	5 133 139	X
3351	Electric lighting equipment manufacturing .....	2003..	59 971	2 703 735	2 150 492	553 243	1
		2002..	66 367	2 799 128	2 261 963	537 165	X
33511	Electric lamp bulb and parts manufacturing .....	2003..	10 987	659 569	489 528	170 041	2
		2002..	11 476	641 813	486 257	155 556	X
335110	Electric lamp bulb and parts manufacturing .....	2003..	10 987	659 569	489 528	170 041	2
		2002..	11 476	641 813	486 257	155 556	X
33512	Lighting fixture manufacturing .....	2003..	48 984	2 044 166	1 660 964	383 202	2
		2002..	54 891	2 157 315	1 775 706	381 609	X
33512M	Lighting fixture manufacturing .....	2003..	48 984	2 044 166	1 660 964	383 202	2
		2002..	54 891	2 157 315	1 775 706	381 609	X
3352	Household appliance manufacturing .....	2003..	84 286	3 968 306	2 862 279	1 106 026	1
		2002..	89 231	4 108 224	3 016 482	1 091 742	X
33521	Small electrical appliance manufacturing .....	2003..	17 567	786 041	586 793	199 248	1
		2002..	19 855	877 728	644 936	232 792	X
33521M	Small electrical appliance manufacturing .....	2003..	17 567	786 041	586 793	199 248	1
		2002..	19 855	877 728	644 936	232 792	X
33522	Major appliance manufacturing .....	2003..	66 719	3 182 264	2 275 486	906 778	1
		2002..	69 376	3 230 496	2 371 546	858 950	X
335221	Household cooking appliance manufacturing .....	2003..	15 001	583 465	434 271	149 194	2
		2002..	17 163	630 964	477 744	153 220	X
335222	Household refrigerator and home freezer manufacturing .....	2003..	23 439	1 154 652	801 975	352 677	1
		2002..	23 487	1 147 756	814 868	332 888	X
335224	Household laundry equipment manufacturing .....	2003..	15 665	813 108	576 425	236 683	1
		2002..	16 034	837 449	621 980	215 469	X
335228	Other major household appliance manufacturing .....	2003..	12 614	631 040	462 815	168 225	4
		2002..	12 692	614 327	456 954	157 373	X
3353	Electrical equipment manufacturing .....	2003..	149 469	7 573 372	5 904 379	1 668 993	1
		2002..	162 424	7 814 450	6 149 339	1 665 111	X
33531	Electrical equipment manufacturing .....	2003..	149 469	7 573 372	5 904 379	1 668 993	1
		2002..	162 424	7 814 450	6 149 339	1 665 111	X
335311	Power, distribution, and specialty transformer manufacturing .....	2003..	21 232	998 869	776 450	222 419	1
		2002..	22 071	1 040 383	817 477	222 906	X
335312	Motor and generator manufacturing .....	2003..	48 752	2 204 518	1 709 975	494 543	1
		2002..	54 377	2 321 180	1 818 473	502 707	X
335313	Switchgear and switchboard apparatus manufacturing .....	2003..	35 023	1 899 834	1 435 419	464 415	1
		2002..	38 197	1 935 718	1 486 599	449 119	X
335314	Relay and industrial control manufacturing .....	2003..	44 463	2 470 150	1 982 534	487 616	2
		2002..	47 779	2 517 169	2 026 790	490 379	X
3359	Other electrical equipment and component manufacturing .....	2003..	159 572	8 171 906	6 348 620	1 823 286	1
		2002..	176 700	8 496 751	6 657 630	1 839 121	X
33591	Battery manufacturing .....	2003..	25 041	1 317 555	975 590	341 965	1
		2002..	26 330	1 309 695	979 936	329 759	X
335911	Storage battery manufacturing .....	2003..	16 623	870 898	648 955	221 943	1
		2002..	17 877	892 792	669 809	222 983	X
335912	Primary battery manufacturing .....	2003..	8 418	446 657	326 635	120 022	1
		2002..	8 453	416 903	310 127	106 776	X
33592	Communication and energy wire and cable manufacturing .....	2003..	39 425	2 024 222	1 543 975	480 247	2
		2002..	46 274	2 231 669	1 719 267	512 402	X
33592M	Communication and energy wire and cable manufacturing .....	2003..	39 425	2 024 222	1 543 975	480 247	2
		2002..	46 274	2 231 669	1 719 267	512 402	X
33593	Wiring device manufacturing .....	2003..	50 358	2 393 593	1 878 632	514 961	1
		2002..	54 659	2 513 688	1 977 575	536 113	X
33593M	Wiring device manufacturing .....	2003..	50 358	2 393 593	1 878 632	514 961	1
		2002..	54 659	2 513 688	1 977 575	536 113	X
33599	All other electrical equipment and component manufacturing .....	2003..	44 749	2 436 535	1 950 422	486 113	3
		2002..	49 437	2 441 699	1 980 852	460 847	X
335991	Carbon and graphite product manufacturing .....	2003..	7 901	432 254	326 987	105 267	1
		2002..	8 573	447 437	345 852	101 585	X
335999	All other miscellaneous electrical equipment and component manufacturing .....	2003..	36 848	2 004 282	1 623 435	380 847	4
		2002..	40 864	1 994 262	1 635 000	359 262	X
336	Transportation equipment manufacturing .....	2003..	1 580 898	109 080 562	80 994 414	28 086 148	1
		2002..	1 679 942	109 567 817	82 233 817	27 334 000	X
3361	Motor vehicle manufacturing .....	2003..	209 537	19 706 067	14 191 937	5 514 130	1
		2002..	223 031	19 677 766	14 177 385	5 500 381	X
33611	Automobile and light duty motor vehicle manufacturing .....	2003..	183 033	18 053 714	13 059 744	4 993 970	1
		2002..	193 202	17 889 312	12 948 504	4 940 808	X
336111	Automobile manufacturing .....	2003..	74 366	7 085 464	5 067 732	2 017 732	1
		2002..	80 530	7 181 355	5 126 381	2 054 974	X
336112	Light truck and utility vehicle manufacturing .....	2003..	108 667	10 968 250	7 992 012	2 976 238	1
		2002..	112 672	10 707 957	7 822 123	2 885 834	X
33612	Heavy duty truck manufacturing .....	2003..	26 504	1 652 353	1 132 193	520 160	1
		2002..	29 829	1 788 454	1 228 881	559 573	X
336120	Heavy duty truck manufacturing .....	2003..	26 504	1 652 353	1 132 193	520 160	1
		2002..	29 829	1 788 454	1 228 881	559 573	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—
			Total	Payroll	Total fringe benefits	
336	Transportation equipment manufacturing—Con.					
3362	Motor vehicle body and trailer manufacturing .....	127 420	5 268 429	4 332 683	935 746	1
	2002..	127 082	5 065 173	4 191 764	873 409	X
33621	Motor vehicle body and trailer manufacturing .....	127 420	5 268 429	4 332 683	935 746	1
	2002..	127 082	5 065 173	4 191 764	873 409	X
336211	Motor vehicle body manufacturing .....	40 391	1 797 044	1 450 839	346 204	1
	2002..	41 238	1 765 784	1 420 101	345 683	X
336212	Truck trailer manufacturing .....	23 716	964 986	773 800	191 186	2
	2002..	23 589	885 957	723 974	161 983	X
336213	Motor home manufacturing .....	21 775	917 023	757 968	159 055	1
	2002..	20 776	863 317	726 182	137 135	X
336214	Travel trailer and camper manufacturing .....	41 538	1 589 376	1 350 075	239 301	2
	2002..	41 479	1 550 115	1 321 507	228 608	X
3363	Motor vehicle parts manufacturing .....	670 465	43 131 316	31 400 726	11 730 589	1
	2002..	730 183	43 475 017	32 220 456	11 254 561	X
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	87 365	6 349 175	4 620 450	1 728 725	1
	2002..	99 879	6 492 693	4 812 385	1 680 308	X
33631M	Motor vehicle gasoline engine and engine parts manufacturing .....	87 365	6 349 175	4 620 450	1 728 725	1
	2002..	99 879	6 492 693	4 812 385	1 680 308	X
33632	Motor vehicle electrical and electronic equipment manufacturing .....	92 339	5 415 374	3 903 113	1 512 261	1
	2002..	98 519	5 486 728	4 045 896	1 440 832	X
33632M	Motor vehicle electrical and electronic equipment manufacturing .....	92 339	5 415 374	3 903 113	1 512 261	1
	2002..	98 519	5 486 728	4 045 896	1 440 832	X
33633	Motor vehicle steering and suspension component (except spring) manufacturing .....	39 696	2 839 280	1 917 837	921 444	2
	2002..	41 783	2 823 620	2 045 377	778 243	X
336330	Motor vehicle steering and suspension component (except spring) manufacturing .....	39 696	2 839 280	1 917 837	921 444	2
	2002..	41 783	2 823 620	2 045 377	778 243	X
33634	Motor vehicle brake system manufacturing .....	41 217	2 194 018	1 604 102	589 915	1
	2002..	42 356	2 239 418	1 660 877	578 541	X
336340	Motor vehicle brake system manufacturing .....	41 217	2 194 018	1 604 102	589 915	1
	2002..	42 356	2 239 418	1 660 877	578 541	X
33635	Motor vehicle transmission and power train parts manufacturing .....	89 281	7 410 322	5 365 213	2 045 109	1
	2002..	102 269	7 813 887	5 722 538	2 091 349	X
336350	Motor vehicle transmission and power train parts manufacturing .....	89 281	7 410 322	5 365 213	2 045 109	1
	2002..	102 269	7 813 887	5 722 538	2 091 349	X
33636	Motor vehicle seating and interior trim manufacturing .....	54 852	2 953 756	2 164 569	789 188	1
	2002..	56 041	2 771 816	2 069 446	702 370	X
336360	Motor vehicle seating and interior trim manufacturing .....	54 852	2 953 756	2 164 569	789 188	1
	2002..	56 041	2 771 816	2 069 446	702 370	X
33637	Motor vehicle metal stamping .....	106 292	7 631 231	5 752 544	1 878 686	2
	2002..	125 636	7 594 860	5 785 041	1 809 819	X
336370	Motor vehicle metal stamping .....	106 292	7 631 231	5 752 544	1 878 686	2
	2002..	125 636	7 594 860	5 785 041	1 809 819	X
33639	Other motor vehicle parts manufacturing .....	159 422	8 338 160	6 072 899	2 265 261	1
	2002..	163 700	8 251 995	6 078 896	2 173 099	X
336391	Motor vehicle air-conditioning manufacturing .....	18 870	1 418 233	938 360	479 872	1
	2002..	19 053	1 390 213	920 567	469 646	X
336399	All other miscellaneous motor vehicle parts manufacturing .....	140 552	6 919 927	5 134 538	1 785 389	1
	2002..	144 647	6 861 782	5 158 329	1 703 453	X
3364	Aerospace product and parts manufacturing .....	374 563	30 594 899	23 101 465	7 493 434	1
	2002..	396 318	31 202 703	23 796 065	7 406 638	X
33641	Aerospace product and parts manufacturing .....	374 563	30 594 899	23 101 465	7 493 434	1
	2002..	396 318	31 202 703	23 796 065	7 406 638	X
336411	Aircraft manufacturing .....	156 715	12 761 763	9 776 023	2 985 740	1
	2002..	166 487	13 245 574	10 091 352	3 154 222	X
336412	Aircraft engine and engine parts manufacturing .....	65 835	5 189 934	3 925 954	1 263 980	1
	2002..	72 138	5 418 757	4 130 836	1 287 921	X
336413	Other aircraft parts and auxiliary equipment manufacturing .....	94 392	7 172 691	5 244 998	1 927 693	1
	2002..	98 299	7 057 876	5 333 010	1 724 866	X
336414	Guided missile and space vehicle manufacturing .....	38 081	3 846 258	2 891 937	954 321	1
	2002..	38 661	3 783 090	2 935 471	847 619	X
336415	Guided missile and space vehicle propulsion unit and propulsion unit parts manufacturing .....	13 843	1 255 974	979 602	276 372	1
	2002..	14 512	1 281 651	984 405	297 246	X
336419	Other guided missile and space vehicle parts and auxiliary equipment manufacturing .....	5 696	368 280	282 951	85 328	1
	2002..	6 221	415 755	320 991	94 764	X
3365	Railroad rolling stock manufacturing .....	24 675	1 535 655	1 166 328	369 327	1
	2002..	25 638	1 586 185	1 208 611	377 574	X
33651	Railroad rolling stock manufacturing .....	24 675	1 535 655	1 166 328	369 327	1
	2002..	25 638	1 586 185	1 208 611	377 574	X
336510	Railroad rolling stock manufacturing .....	24 675	1 535 655	1 166 328	369 327	1
	2002..	25 638	1 586 185	1 208 611	377 574	X
3366	Ship and boat building .....	134 507	6 728 570	5 199 415	1 529 155	1
	2002..	137 339	6 540 188	5 088 638	1 451 550	X
33661	Ship and boat building .....	134 507	6 728 570	5 199 415	1 529 155	1
	2002..	137 339	6 540 188	5 088 638	1 451 550	X
336611	Ship building and repairing .....	85 042	4 818 344	3 656 405	1 161 939	1
	2002..	87 412	4 732 069	3 614 883	1 117 186	X
336612	Boat building .....	49 465	1 910 226	1 543 011	367 216	2
	2002..	49 927	1 808 119	1 473 755	334 364	X

See footnotes at end of table.



**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—
			Total	Payroll	Total fringe benefits	
			A	B	C	
336	Transportation equipment manufacturing—Con.					
3369	Other transportation equipment manufacturing .....	39 731	2 115 626	1 601 859	513 767	2
	2002..	40 351	2 020 785	1 550 898	469 887	X
33699	Other transportation equipment manufacturing .....	39 731	2 115 626	1 601 859	513 767	2
	2002..	40 351	2 020 785	1 550 898	469 887	X
336991	Motorcycle, bicycle, and parts manufacturing .....	15 026	888 947	641 850	247 097	3
	2002..	15 035	858 991	631 457	227 534	X
336992	Military armored vehicle, tank, and tank component manufacturing .....	4 440	333 952	261 093	72 859	1
	2002..	5 295	289 598	289 100	72 498	X
336999	All other transportation equipment manufacturing .....	20 264	892 727	698 916	193 811	5
	2002..	20 021	800 196	630 341	169 855	X
337	Furniture and related product manufacturing .....	556 033	20 615 315	16 808 146	3 807 170	1
	2002..	599 099	21 245 334	17 480 546	3 764 788	X
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	360 178	12 327 130	10 127 887	2 199 243	1
	2002..	389 649	12 748 926	10 577 045	2 171 881	X
33711	Wood kitchen cabinet and counter top manufacturing .....	128 113	4 540 456	3 781 647	758 809	1
	2002..	126 626	4 332 965	3 636 299	696 666	X
337110	Wood kitchen cabinet and counter top manufacturing .....	128 113	4 540 456	3 781 647	758 809	1
	2002..	126 626	4 332 965	3 636 299	696 666	X
33712	Household and institutional furniture manufacturing .....	232 065	7 786 674	6 346 240	1 440 434	1
	2002..	263 023	8 415 961	6 940 746	1 475 215	X
337121	Upholstered household furniture manufacturing .....	84 614	2 821 733	2 304 891	516 842	2
	2002..	91 838	2 934 766	2 438 865	495 901	X
337122	Nonupholstered wood household furniture manufacturing .....	95 502	3 034 445	2 457 350	577 095	1
	2002..	111 984	3 370 159	2 750 652	619 507	X
337127	Institutional furniture manufacturing .....	29 724	1 167 277	963 384	203 892	4
	2002..	33 486	1 265 888	1 053 621	212 267	X
33712N	Other household nonupholstered furniture .....	22 225	763 220	620 615	142 605	3
	2002..	25 715	845 148	697 608	147 540	X
3372	Office furniture (including fixtures) manufacturing .....	152 184	6 599 910	5 330 410	1 269 500	1
	2002..	163 282	6 783 160	5 515 622	1 267 538	X
33721	Office furniture (including fixtures) manufacturing .....	152 184	6 599 910	5 330 410	1 269 500	1
	2002..	163 282	6 783 160	5 515 622	1 267 538	X
337212	Custom architectural woodwork and millwork manufacturing .....	32 369	1 407 273	1 182 187	225 086	2
	2002..	34 116	1 446 797	1 232 378	214 419	X
337215	Showcase, partition, shelving, and locker manufacturing .....	62 306	2 480 905	2 065 069	415 735	2
	2002..	70 301	2 602 621	2 183 350	419 271	X
33721N	Office furniture manufacturing .....	57 508	2 711 832	2 083 154	628 678	2
	2002..	58 865	2 733 742	2 099 894	633 848	X
3379	Other furniture related product manufacturing .....	43 671	1 688 275	1 349 849	338 427	2
	2002..	46 168	1 713 248	1 387 879	325 369	X
33791	Mattress manufacturing .....	22 227	960 100	774 948	185 151	2
	2002..	23 027	939 030	763 765	175 265	X
337910	Mattress manufacturing .....	22 227	960 100	774 948	185 151	2
	2002..	23 027	939 030	763 765	175 265	X
33792	Blind and shade manufacturing .....	21 443	728 176	574 900	153 275	3
	2002..	23 141	774 218	624 114	150 104	X
337920	Blind and shade manufacturing .....	21 443	728 176	574 900	153 275	3
	2002..	23 141	774 218	624 114	150 104	X
339	Miscellaneous manufacturing .....	730 565	33 634 729	27 607 963	6 026 766	1
	2002..	761 345	33 263 875	27 469 180	5 794 695	X
3391	Medical equipment and supplies manufacturing .....	320 000	16 868 311	13 683 676	3 184 634	1
	2002..	331 035	16 491 136	13 452 105	3 039 031	X
33911	Medical equipment and supplies manufacturing .....	320 000	16 868 311	13 683 676	3 184 634	1
	2002..	331 035	16 491 136	13 452 105	3 039 031	X
339111	Laboratory apparatus and furniture manufacturing .....	22 731	1 273 710	1 039 159	234 551	2
	2002..	24 388	1 337 848	1 102 706	235 142	X
339112	Surgical and medical instrument manufacturing .....	94 307	5 439 691	4 410 242	1 029 449	3
	2002..	103 056	5 598 613	4 566 713	1 031 900	X
339113	Surgical appliance and supplies manufacturing .....	113 586	6 253 635	5 052 129	1 201 506	2
	2002..	114 873	5 795 130	4 685 508	1 109 622	X
339114	Dental equipment and supplies manufacturing .....	16 960	885 013	723 615	161 398	5
	2002..	17 358	841 896	699 714	142 182	X
339115	Ophthalmic goods manufacturing .....	21 372	1 089 323	852 238	237 084	6
	2002..	21 861	1 110 535	872 686	237 849	X
339116	Dental laboratories .....	51 043	1 926 940	1 606 293	320 647	2
	2002..	49 499	1 807 114	1 524 778	282 336	X
3399	Other miscellaneous manufacturing .....	410 565	16 766 418	13 924 287	2 842 131	1
	2002..	430 310	16 772 739	14 017 075	2 755 664	X
33991	Jewelry and silverware manufacturing .....	48 150	1 829 006	1 530 457	298 549	2
	2002..	50 535	1 844 765	1 551 766	292 999	X
33991M	Jewelry and silverware manufacturing .....	48 150	1 829 006	1 530 457	298 549	2
	2002..	50 535	1 844 765	1 551 766	292 999	X
33992	Sporting and athletic goods manufacturing .....	60 995	2 480 785	2 028 354	452 431	1
	2002..	62 602	2 530 187	2 084 390	445 797	X
339920	Sporting and athletic goods manufacturing .....	60 995	2 480 785	2 028 354	452 431	1
	2002..	62 602	2 530 187	2 084 390	445 797	X
33993	Doll, toy, and game manufacturing .....	18 758	744 584	609 489	135 096	3
	2002..	20 693	797 025	655 858	141 167	X
33993M	Doll, toy, and game manufacturing .....	18 758	744 584	609 489	135 096	3
	2002..	20 693	797 025	655 858	141 167	X

See footnotes at end of table.

**Table 3. Employment and Labor Costs for Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	All employees <sup>2</sup>	Compensation (\$1,000)			Relative standard error of estimate <sup>3</sup> (percent) for column—
			Total	Payroll	Total fringe benefits	
			A	B	C	
339	Miscellaneous manufacturing—Con.					
3399	Other miscellaneous manufacturing—Con.					
33994	Office supplies (except paper) manufacturing .....	22 951	983 482	808 649	174 833	1
	2002..	23 656	970 729	795 569	175 160	X
33994M	Office supplies (except paper) manufacturing .....	22 951	983 482	808 649	174 833	1
	2002..	23 656	970 729	795 569	175 160	X
33995	Sign manufacturing .....	80 560	3 420 046	2 926 621	493 425	1
	2002..	86 239	3 468 138	2 986 377	481 761	X
339950	Sign manufacturing .....	80 560	3 420 046	2 926 621	493 425	1
	2002..	86 239	3 468 138	2 986 377	481 761	X
33999	All other miscellaneous manufacturing .....	179 151	7 308 515	6 020 717	1 287 798	1
	2002..	186 585	7 161 895	5 943 115	1 218 780	X
339991	Gasket, packing, and sealing device manufacturing .....	34 640	1 706 697	1 314 630	392 067	2
	2002..	38 060	1 723 543	1 350 431	373 112	X
339992	Musical instrument manufacturing .....	14 092	571 572	459 889	111 682	2
	2002..	14 793	582 034	471 316	110 718	X
339993	Fastener, button, needle, and pin manufacturing .....	4 927	208 306	166 252	42 054	3
	2002..	5 257	210 768	171 477	39 291	X
339994	Broom, brush, and mop manufacturing .....	14 121	535 436	441 523	93 914	5
	2002..	15 075	557 730	464 627	93 103	X
339995	Burial casket manufacturing .....	5 038	222 463	174 299	48 164	1
	2002..	5 435	215 807	172 060	43 747	X
339999	All other miscellaneous manufacturing .....	106 333	4 064 041	3 464 124	599 917	2
	2002..	107 965	3 872 013	3 313 204	558 809	X

<sup>1</sup>For a comparison of the Annual Survey of Manufactures (ASM) general statistics NAICS-based codes to the 2002 Economic Census NAICS codes, see Appendix F.

<sup>2</sup>Figures represent average number of production workers for the payroll period that includes the 12th of March, May, August, and November, plus other employees for the payroll period that includes the 12th of March.

<sup>3</sup>Description of relative standard error of estimate is given in Appendix C. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note 1: Previous years' data may differ from that published in the 2002 Economic Census because of changes encountered in subsequent review of the 2003 Annual Survey of Manufactures (ASM).

Note 2: The data in this table are based on the 2003 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The data in this table contain sampling errors and nonsampling errors. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Groups and Industries: 2003 and 2002**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy				Cost of purchased fuels less sold (\$1,000)	Relative standard error of estimate <sup>2</sup> (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)	E		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)					
			A	B	C	D		E	C
<b>31-33</b>	<b>Manufacturing</b>	<b>77 436 383</b>	<b>818 287 031</b>	<b>40 349 405</b>	<b>94 131 555</b>	<b>37 086 979</b>	<b>1</b>	<b>1</b>	
		<b>70 778 687</b>	<b>818 197 395</b>	<b>38 976 357</b>	<b>90 547 493</b>	<b>31 802 330</b>	<b>X</b>	<b>X</b>	
311	Food manufacturing	7 289 650	67 353 993	3 646 512	4 118 200	3 643 138	1	1	
		6 793 669	68 508 225	3 591 400	3 802 204	3 202 269	X	X	
3111	Animal food manufacturing	340 447	2 780 906	166 010	19 833	174 438	6	2	
		358 464	3 461 200	190 481	873	167 983	X	X	
31111	Animal food manufacturing	340 447	2 780 906	166 010	19 833	174 438	6	2	
		358 464	3 461 200	190 481	873	167 983	X	X	
311111	Dog and cat food manufacturing	134 411	1 178 655	61 750	15 475	72 662	1	2	
		134 382	1 292 545	66 341	—	68 041	X	X	
311119	Other animal food manufacturing	206 036	1 602 251	104 260	4 358	101 776	10	3	
		224 082	2 168 655	124 140	873	99 942	X	X	
3112	Grain and oilseed milling	1 578 152	14 470 109	647 302	2 475 887	930 850	2	2	
		1 544 712	15 734 687	662 311	2 545 122	882 401	X	X	
31121	Flour milling and malt manufacturing	243 622	2 970 969	166 566	D	77 056	1	1	
		228 475	2 945 824	160 991	D	67 484	X	X	
31121M	Flour milling and malt manufacturing	243 622	2 970 969	166 566	D	77 056	1	1	
		228 475	2 945 824	160 991	D	67 484	X	X	
31122	Starch and vegetable fats and oils manufacturing	1 220 587	10 155 700	419 103	2 443 568	801 484	3	2	
		1 215 622	11 528 811	444 991	2 409 089	770 631	X	X	
311221	Wet corn milling	740 246	6 484 575	257 065	2 219 055	483 181	5	3	
		774 865	7 796 146	280 718	2 155 628	494 147	X	X	
311225	Fats and oils refining and blending	109 939	884 113	43 700	63 325	66 239	2	2	
		115 363	926 773	47 410	85 659	67 953	X	X	
31122N	Soybean and other oilseed processing	370 402	2 787 011	118 338	161 188	252 064	2	2	
		325 394	2 805 892	116 863	167 802	208 531	X	X	
31123	Breakfast cereal manufacturing	113 943	1 343 440	61 633	D	52 310	1	1	
		100 615	1 260 052	56 329	D	44 286	X	X	
311230	Breakfast cereal manufacturing	113 943	1 343 440	61 633	D	52 310	1	1	
		100 615	1 260 052	56 329	D	44 286	X	X	
3113	Sugar and confectionery product manufacturing	467 444	3 374 591	191 705	1 287 762	275 739	3	9	
		416 057	3 164 117	184 182	741 689	231 875	X	X	
31131	Sugar manufacturing	260 019	944 366	55 062	1 368 034	204 957	9	12	
		215 048	964 649	52 676	621 929	162 372	X	X	
311313	Beet sugar manufacturing	153 460	457 121	24 931	391 798	128 529	20	19	
		116 985	462 494	22 700	192 613	94 285	X	X	
31131N	Sugar cane mills and refining	106 559	487 245	30 131	976 236	76 428	1	1	
		98 063	502 155	29 976	429 316	68 087	X	X	
31132	Chocolate and confectionery manufacturing from cacao beans	45 637	636 619	31 796	D	13 841	3	4	
		44 301	533 419	31 893	D	12 408	X	X	
311320	Chocolate and confectionery manufacturing from cacao beans	45 637	636 619	31 796	D	13 841	3	4	
		44 301	533 419	31 893	D	12 408	X	X	
31133	Confectionery manufacturing from purchased chocolate	89 794	1 013 445	59 778	D	30 016	1	1	
		86 718	992 006	58 778	D	27 940	X	X	
311330	Confectionery manufacturing from purchased chocolate	89 794	1 013 445	59 778	D	30 016	1	1	
		86 718	992 006	58 778	D	27 940	X	X	
31134	Nonchocolate confectionery manufacturing	71 994	780 160	45 069	—	26 925	1	2	
		69 990	674 043	40 835	D	29 155	X	X	
311340	Nonchocolate confectionery manufacturing	71 994	780 160	45 069	—	26 925	1	2	
		69 990	674 043	40 835	D	29 155	X	X	
3114	Fruit and vegetable preserving and specialty food manufacturing	1 004 516	8 561 384	491 052	290 031	513 464	4	2	
		965 216	8 433 987	486 066	370 184	479 150	X	X	
31141	Frozen food manufacturing	455 341	4 878 366	261 048	4 345	194 293	1	1	
		431 451	4 975 646	263 168	18 168	168 283	X	X	
31141M	Frozen food manufacturing	455 341	4 878 366	261 048	4 345	194 293	1	1	
		431 451	4 975 646	263 168	18 168	168 283	X	X	
31142	Fruit and vegetable canning, pickling, and drying	549 175	3 683 018	230 004	285 686	319 171	8	2	
		533 765	3 458 341	222 898	352 016	310 867	X	X	
31142M	Fruit and vegetable canning, pickling, and drying	549 175	3 683 018	230 004	285 686	319 171	8	2	
		533 765	3 458 341	222 898	352 016	310 867	X	X	
3115	Dairy product manufacturing	867 314	8 203 072	490 287	-19 186	377 027	1	1	
		788 264	8 065 066	477 842	9 767	310 422	X	X	
31151	Dairy product (except frozen) manufacturing	773 324	6 886 669	411 140	-19 186	362 184	1	1	
		695 469	6 769 711	397 812	9 767	297 657	X	X	
311513	Cheese manufacturing	282 682	2 487 863	137 635	1 583	145 047	2	2	
		243 065	2 363 180	130 823	1 181	112 242	X	X	
311514	Dry, condensed, and evaporated dairy product manufacturing	162 489	1 088 779	64 842	—	97 647	3	1	
		150 158	1 209 046	68 015	—	82 143	X	X	
31151N	Fluid milk and butter manufacturing	328 152	3 310 027	208 662	-20 769	119 489	1	2	
		302 246	3 197 485	198 974	8 586	103 272	X	X	
31152	Ice cream and frozen dessert manufacturing	93 990	1 316 403	79 147	—	14 843	2	2	
		92 795	1 295 355	80 030	—	12 765	X	X	
311520	Ice cream and frozen dessert manufacturing	93 990	1 316 403	79 147	—	14 843	2	2	
		92 795	1 295 355	80 030	—	12 765	X	X	
3116	Animal slaughtering and processing	1 572 920	16 379 870	838 426	-10 250	734 493	1	3	
		1 340 205	16 091 113	785 694	782	554 511	X	X	
31161	Animal slaughtering and processing	1 572 920	16 379 870	838 426	-10 250	734 493	1	3	
		1 340 205	16 091 113	785 694	782	554 511	X	X	
311615	Poultry processing	502 359	6 738 811	329 685	D	172 675	1	1	
		522 392	7 004 388	333 903	D	188 489	X	X	
31161N	Animal (except poultry) slaughtering and processing	1 070 560	9 641 058	508 741	—	561 819	1	4	
		817 813	9 086 725	451 791	782	366 022	X	X	

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			Purchased				E	C	E
			Quantity (1,000 kWh)	Cost (\$1,000)					
		A	B	C	D				
311	Food manufacturing—Con.								
3117	Seafood product preparation and packaging .....	2003.. 133 071	1 177 872	73 167	67 795	59 904	5	8	
		2002.. 125 601	1 042 969	66 636	49 676	58 965	X	X	
31171	Seafood product preparation and packaging .....	2003.. 133 071	1 177 872	73 167	67 795	59 904	5	8	
		2002.. 125 601	1 042 969	66 636	49 676	58 965	X	X	
31171M	Seafood product preparation and packaging .....	2003.. 133 071	1 177 872	73 167	67 795	59 904	5	8	
		2002.. 125 601	1 042 969	66 636	49 676	58 965	X	X	
3118	Bakeries and tortilla manufacturing .....	2003.. 681 141	6 223 551	392 949	16 447	288 193	1	2	
		2002.. 667 873	6 432 691	397 060	50 091	270 813	X	X	
31181	Bread and bakery product manufacturing .....	2003.. 455 159	4 002 433	257 730	11 963	197 429	1	2	
		2002.. 465 585	4 320 005	270 196	42 997	195 389	X	X	
31181M	Bread and bakery product manufacturing .....	2003.. 455 159	4 002 433	257 730	11 963	197 429	1	2	
		2002.. 465 585	4 320 005	270 196	42 997	195 389	X	X	
31182	Cookie, cracker, and pasta manufacturing .....	2003.. 193 379	1 977 650	117 878	4 485	75 501	3	7	
		2002.. 170 617	1 874 788	109 386	7 094	61 231	X	X	
31182M	Cookie, cracker, and pasta manufacturing .....	2003.. 193 379	1 977 650	117 878	4 485	75 501	3	7	
		2002.. 170 617	1 874 788	109 386	7 094	61 231	X	X	
31183	Tortilla manufacturing .....	2003.. 32 604	243 469	17 341	—	15 262	4	4	
		2002.. 31 671	237 898	17 478	—	14 193	X	X	
311830	Tortilla manufacturing .....	2003.. 32 604	243 469	17 341	—	15 262	4	4	
		2002.. 31 671	237 898	17 478	—	14 193	X	X	
3119	Other food manufacturing .....	2003.. 644 645	6 182 640	355 615	-10 120	289 030	2	1	
		2002.. 587 277	6 082 395	341 128	34 020	246 149	X	X	
31191	Snack food manufacturing .....	2003.. 204 536	1 444 682	81 654	-2 276	122 881	2	1	
		2002.. 191 529	1 674 200	82 500	D	109 029	X	X	
31191M	Snack food manufacturing .....	2003.. 204 536	1 444 682	81 654	-2 276	122 881	2	1	
		2002.. 191 529	1 674 200	82 500	D	109 029	X	X	
31192	Coffee and tea manufacturing .....	2003.. 65 406	484 203	30 527	—	34 879	1	1	
		2002.. 51 247	431 906	27 797	—	23 450	X	X	
311920	Coffee and tea manufacturing .....	2003.. 65 406	484 203	30 527	—	34 879	1	1	
		2002.. 51 247	431 906	27 797	—	23 450	X	X	
31193	Flavoring syrup and concentrate manufacturing .....	2003.. 23 683	221 588	13 617	—	10 066	8	3	
		2002.. 21 304	186 672	12 577	—	8 727	X	X	
311930	Flavoring syrup and concentrate manufacturing .....	2003.. 23 683	221 588	13 617	—	10 066	8	3	
		2002.. 21 304	186 672	12 577	—	8 727	X	X	
31194	Seasoning and dressing manufacturing .....	2003.. 93 485	978 261	59 831	D	33 654	1	2	
		2002.. 83 987	903 051	55 431	—	28 556	X	X	
31194M	Seasoning and dressing manufacturing .....	2003.. 93 485	978 261	59 831	D	33 654	1	2	
		2002.. 83 987	903 051	55 431	—	28 556	X	X	
31199	All other food manufacturing .....	2003.. 257 536	3 053 907	169 986	D	87 550	3	3	
		2002.. 239 210	2 886 566	162 823	D	76 387	X	X	
31199M	All other food manufacturing .....	2003.. 257 536	3 053 907	169 986	D	87 550	3	3	
		2002.. 239 210	2 886 566	162 823	D	76 387	X	X	
312	Beverage and tobacco product manufacturing .....	2003.. 822 512	8 331 032	492 330	219 443	330 182	1	1	
		2002.. 759 820	8 192 150	480 769	134 674	279 051	X	X	
3121	Beverage manufacturing .....	2003.. 706 533	6 929 621	426 600	D	279 932	2	2	
		2002.. 645 838	6 704 304	413 464	D	232 374	X	X	
31211	Soft drink and ice manufacturing .....	2003.. 333 189	3 429 043	226 266	D	106 923	3	4	
		2002.. 303 696	3 205 878	212 959	11 708	90 737	X	X	
31211M	Soft drink and ice manufacturing .....	2003.. 333 189	3 429 043	226 266	D	106 923	3	4	
		2002.. 303 696	3 205 878	212 959	11 708	90 737	X	X	
31212	Breweries .....	2003.. 276 420	2 572 764	130 440	D	145 980	1	1	
		2002.. 237 223	2 494 752	123 465	D	113 758	X	X	
312120	Breweries .....	2003.. 276 420	2 572 764	130 440	D	145 980	1	1	
		2002.. 237 223	2 494 752	123 465	D	113 758	X	X	
31213	Wineries .....	2003.. 77 363	753 604	61 133	—	16 230	2	2	
		2002.. 83 567	802 853	67 122	D	16 445	X	X	
312130	Wineries .....	2003.. 77 363	753 604	61 133	—	16 230	2	2	
		2002.. 83 567	802 853	67 122	D	16 445	X	X	
31214	Distilleries .....	2003.. 19 560	174 211	8 761	—	10 799	4	13	
		2002.. 21 352	200 821	9 918	—	11 434	X	X	
312140	Distilleries .....	2003.. 19 560	174 211	8 761	—	10 799	4	13	
		2002.. 21 352	200 821	9 918	—	11 434	X	X	
3122	Tobacco manufacturing .....	2003.. 115 979	1 401 410	65 729	D	50 250	1	1	
		2002.. 113 982	1 487 846	67 305	D	46 677	X	X	
31221	Tobacco stemming and redrying .....	2003.. 15 466	116 578	7 332	—	8 134	1	1	
		2002.. 13 505	110 792	6 457	—	7 048	X	X	
312210	Tobacco stemming and redrying .....	2003.. 15 466	116 578	7 332	—	8 134	1	1	
		2002.. 13 505	110 792	6 457	—	7 048	X	X	
31222	Tobacco product manufacturing .....	2003.. 100 513	1 284 832	58 397	D	42 116	1	1	
		2002.. 100 477	1 377 054	60 848	D	39 629	X	X	
31222M	Tobacco product manufacturing .....	2003.. 100 513	1 284 832	58 397	D	42 116	1	1	
		2002.. 100 477	1 377 054	60 848	D	39 629	X	X	

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			Purchased		Generated less sold (1,000 kWh)	E		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)					
			A	B	C	D		E	C
313	Textile mills .....	2003..	1 521 205	22 869 531	1 032 571	120 661	488 634	1	1
		2002..	1 512 883	23 574 891	1 056 744	193 566	456 139	X	X
3131	Fiber, yarn, and thread mills .....	2003..	405 912	7 873 698	351 094	D	54 818	2	3
		2002..	402 546	8 189 521	360 826	D	41 720	X	X
31311	Fiber, yarn, and thread mills .....	2003..	405 912	7 873 698	351 094	D	54 818	2	3
		2002..	402 546	8 189 521	360 826	D	41 720	X	X
31311M	Fiber, yarn, and thread mills .....	2003..	405 912	7 873 698	351 094	D	54 818	2	3
		2002..	402 546	8 189 521	360 826	D	41 720	X	X
3132	Fabric mills .....	2003..	721 597	12 052 308	503 839	46 177	217 757	1	1
		2002..	742 878	12 679 564	536 506	44 945	206 372	X	X
31321	Broadwoven fabric mills .....	2003..	388 523	6 893 455	295 962	D	92 560	1	1
		2002..	406 446	7 446 074	316 315	D	90 131	X	X
313210	Broadwoven fabric mills .....	2003..	388 523	6 893 455	295 962	D	92 560	1	1
		2002..	406 446	7 446 074	316 315	D	90 131	X	X
31322	Narrow fabric mills and schiffli machine embroidery .....	2003..	32 126	369 120	20 479	D	11 647	2	2
		2002..	31 618	348 549	22 338	D	9 280	X	X
31322M	Narrow fabric mills and schiffli machine embroidery .....	2003..	32 126	369 120	20 479	D	11 647	2	2
		2002..	31 618	348 549	22 338	D	9 280	X	X
31323	Nonwoven fabric mills .....	2003..	177 771	3 486 946	121 615	D	56 156	4	1
		2002..	187 056	3 638 888	133 200	D	53 856	X	X
313230	Nonwoven fabric mills .....	2003..	177 771	3 486 946	121 615	D	56 156	4	1
		2002..	187 056	3 638 888	133 200	D	53 856	X	X
31324	Knit fabric mills .....	2003..	123 177	1 302 788	65 783	—	57 394	3	2
		2002..	117 758	1 246 053	64 653	—	53 105	X	X
31324M	Knit fabric mills .....	2003..	123 177	1 302 788	65 783	—	57 394	3	2
		2002..	117 758	1 246 053	64 653	—	53 105	X	X
3133	Textile and fabric finishing and fabric coating mills .....	2003..	393 697	2 943 525	177 638	D	216 059	6	3
		2002..	367 459	2 705 806	159 412	147 153	208 047	X	X
31331	Textile and fabric finishing mills .....	2003..	347 081	2 584 612	152 132	D	194 949	7	3
		2002..	326 021	2 369 566	137 517	D	188 504	X	X
31331M	Textile and fabric finishing mills .....	2003..	347 081	2 584 612	152 132	D	194 949	7	3
		2002..	326 021	2 369 566	137 517	D	188 504	X	X
31332	Fabric coating mills .....	2003..	46 616	358 912	25 505	—	21 110	12	3
		2002..	41 438	336 240	21 895	D	19 543	X	X
313320	Fabric coating mills .....	2003..	46 616	358 912	25 505	—	21 110	12	3
		2002..	41 438	336 240	21 895	D	19 543	X	X
314	Textile product mills .....	2003..	412 507	4 850 066	229 717	1 788	182 790	1	1
		2002..	383 795	4 727 638	223 356	17 815	160 439	X	X
3141	Textile furnishings mills .....	2003..	276 078	2 882 831	131 919	—	144 159	1	1
		2002..	257 143	2 865 870	130 945	—	126 198	X	X
31411	Carpet and rug mills .....	2003..	216 921	2 261 600	94 590	—	122 331	1	1
		2002..	199 256	2 242 676	93 893	D	105 363	X	X
314110	Carpet and rug mills .....	2003..	216 921	2 261 600	94 590	—	122 331	1	1
		2002..	199 256	2 242 676	93 893	D	105 363	X	X
31412	Curtain and linen mills .....	2003..	59 157	621 231	37 328	—	21 828	2	3
		2002..	57 887	623 194	37 052	D	20 835	X	X
31412M	Curtain and linen mills .....	2003..	59 157	621 231	37 328	—	21 828	2	3
		2002..	57 887	623 194	37 052	D	20 835	X	X
3149	Other textile product mills .....	2003..	136 429	1 967 235	97 798	1 788	38 631	2	3
		2002..	126 652	1 861 768	92 411	D	34 241	X	X
31491	Textile bag and canvas mills .....	2003..	12 333	122 179	8 512	D	3 822	13	6
		2002..	13 762	148 028	10 065	D	3 697	X	X
31491M	Textile bag and canvas mills .....	2003..	12 333	122 179	8 512	D	3 822	13	6
		2002..	13 762	148 028	10 065	D	3 697	X	X
31499	All other textile product mills .....	2003..	124 096	1 845 057	89 286	D	34 809	2	3
		2002..	112 890	1 713 740	82 346	—	30 544	X	X
314991	Rope, cordage, and twine mills .....	2003..	9 446	130 377	7 977	—	1 469	3	10
		2002..	9 986	142 020	8 560	—	1 426	X	X
314992	Tire cord and tire fabric mills .....	2003..	54 021	1 027 611	40 164	—	13 857	1	1
		2002..	44 097	933 759	33 475	—	10 622	X	X
314999	All other miscellaneous textile product mills .....	2003..	60 628	687 068	41 145	D	19 483	4	5
		2002..	58 807	637 961	40 311	—	18 496	X	X
315	Apparel manufacturing .....	2003..	312 479	3 251 825	206 638	4 274	105 842	3	2
		2002..	337 261	3 497 702	217 662	3 566	119 599	X	X
3151	Apparel knitting mills .....	2003..	104 404	1 205 939	71 065	D	33 338	4	2
		2002..	110 965	1 252 260	73 455	42	37 510	X	X
31511	Hosiery and sock mills .....	2003..	77 375	954 170	54 213	D	23 163	6	3
		2002..	75 414	944 527	53 306	—	22 108	X	X
31511M	Hosiery and sock mills .....	2003..	77 375	954 170	54 213	D	23 163	6	3
		2002..	75 414	944 527	53 306	—	22 108	X	X
31519	Other apparel knitting mills .....	2003..	27 028	251 769	16 853	D	10 176	2	4
		2002..	35 551	307 733	20 149	42	15 402	X	X
31519M	Other apparel knitting mills .....	2003..	27 028	251 769	16 853	D	10 176	2	4
		2002..	35 551	307 733	20 149	42	15 402	X	X

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			Purchased		Generated less sold (1,000 kWh)	C		E	
			Quantity (1,000 kWh)	Cost (\$1,000)					C
		A	B	C	D	E	C	E	
315	Apparel manufacturing—Con.								
3152	Cut and sew apparel manufacturing .....	191 040	1 883 816	123 886	D	67 153	3	2	
	2002..	209 497	2 090 218	132 791	3 524	76 706	X	X	
31521	Cut and sew apparel contractors .....	42 702	210 345	15 613	D	27 089	18	4	
	2002..	62 357	446 763	29 966	24	32 391	X	X	
31521M	Cut and sew apparel contractors .....	42 702	210 345	15 613	D	27 089	18	4	
	2002..	62 357	446 763	29 966	24	32 391	X	X	
31522	Men's and boys' cut and sew apparel manufacturing .....	54 574	543 418	35 869	5 039	18 704	4	3	
	2002..	69 578	781 313	46 924	D	22 654	X	X	
31522M	Men's and boys' cut and sew apparel manufacturing .....	54 574	543 418	35 869	5 039	18 704	4	3	
	2002..	69 578	781 313	46 924	D	22 654	X	X	
31523	Women's and girls' cut and sew apparel manufacturing .....	83 267	1 000 688	63 197	-31	20 070	5	3	
	2002..	65 584	704 789	45 332	D	20 252	X	X	
31523M	Women's and girls' cut and sew apparel manufacturing .....	83 267	1 000 688	63 197	-31	20 070	5	3	
	2002..	65 584	704 789	45 332	D	20 252	X	X	
31529	Other cut and sew apparel manufacturing .....	10 498	129 364	9 207	-	1 291	4	9	
	2002..	11 978	157 353	10 569	-	1 409	X	X	
31529M	Other cut and sew apparel manufacturing .....	10 498	129 364	9 207	-	1 291	4	9	
	2002..	11 978	157 353	10 569	-	1 409	X	X	
3159	Apparel accessories and other apparel manufacturing .....	17 036	162 069	11 686	-	5 350	2	2	
	2002..	16 799	155 224	11 416	-	5 383	X	X	
31599	Apparel accessories and other apparel manufacturing .....	17 036	162 069	11 686	-	5 350	2	2	
	2002..	16 799	155 224	11 416	-	5 383	X	X	
31599M	Apparel accessories and other apparel manufacturing .....	17 036	162 069	11 686	-	5 350	2	2	
	2002..	16 799	155 224	11 416	-	5 383	X	X	
316	Leather and allied product manufacturing .....	60 434	473 075	30 361	D	30 073	20	38	
	2002..	57 240	588 816	39 075	D	18 165	X	X	
3161	Leather and hide tanning and finishing .....	33 485	152 730	9 586	D	23 899	63	47	
	2002..	28 690	263 372	16 553	D	12 137	X	X	
31611	Leather and hide tanning and finishing .....	33 485	152 730	9 586	D	23 899	63	47	
	2002..	28 690	263 372	16 553	D	12 137	X	X	
316110	Leather and hide tanning and finishing .....	33 485	152 730	9 586	D	23 899	63	47	
	2002..	28 690	263 372	16 553	D	12 137	X	X	
3162	Footwear manufacturing .....	15 824	194 998	12 708	-	3 116	3	4	
	2002..	17 296	206 929	14 052	-	3 244	X	X	
31621	Footwear manufacturing .....	15 824	194 998	12 708	-	3 116	3	4	
	2002..	17 296	206 929	14 052	-	3 244	X	X	
31621M	Footwear manufacturing .....	15 824	194 998	12 708	-	3 116	3	4	
	2002..	17 296	206 929	14 052	-	3 244	X	X	
3169	Other leather and allied product manufacturing .....	11 125	125 347	8 067	-	3 058	4	4	
	2002..	11 254	118 515	8 470	D	2 784	X	X	
31699	Other leather and allied product manufacturing .....	11 125	125 347	8 067	-	3 058	4	4	
	2002..	11 254	118 515	8 470	D	2 784	X	X	
31699M	Other leather and allied product manufacturing .....	11 125	125 347	8 067	-	3 058	4	4	
	2002..	11 254	118 515	8 470	D	2 784	X	X	
321	Wood product manufacturing .....	1 793 579	22 757 008	1 221 319	504 555	572 260	3	1	
	2002..	1 660 959	21 903 272	1 181 231	638 951	479 728	X	X	
3211	Sawmills and wood preservation .....	611 507	7 286 969	404 864	405 001	206 644	2	3	
	2002..	554 340	7 161 818	407 433	466 880	146 907	X	X	
32111	Sawmills and wood preservation .....	611 507	7 286 969	404 864	405 001	206 644	2	3	
	2002..	554 340	7 161 818	407 433	466 880	146 907	X	X	
32111M	Sawmills and wood preservation .....	611 507	7 286 969	404 864	405 001	206 644	2	3	
	2002..	554 340	7 161 818	407 433	466 880	146 907	X	X	
3212	Veneer, plywood, and engineered wood product manufacturing .....	683 850	8 889 160	431 482	63 866	252 368	1	1	
	2002..	672 325	9 310 151	443 464	117 875	228 861	X	X	
32121	Veneer, plywood, and engineered wood product manufacturing .....	683 850	8 889 160	431 482	63 866	252 368	1	1	
	2002..	672 325	9 310 151	443 464	117 875	228 861	X	X	
321219	Reconstituted wood product manufacturing .....	411 000	5 221 335	246 519	D	164 481	1	1	
	2002..	398 231	5 456 781	249 109	D	149 122	X	X	
32121N	Veneer and plywood manufacturing .....	214 719	2 901 658	142 665	D	72 055	3	3	
	2002..	221 954	3 174 695	156 567	D	65 387	X	X	
32121P	Engineered wood product manufacturing .....	58 130	766 167	42 298	D	15 832	2	3	
	2002..	52 140	678 675	37 788	-	14 352	X	X	
3219	Other wood product manufacturing .....	498 222	6 580 879	384 973	35 688	113 249	11	2	
	2002..	434 294	5 431 303	330 334	54 196	103 960	X	X	
32191	Millwork .....	270 024	3 609 484	211 554	35 688	58 470	3	3	
	2002..	244 740	3 280 811	193 657	55 274	51 083	X	X	
32191M	Millwork .....	270 024	3 609 484	211 554	35 688	58 470	3	3	
	2002..	244 740	3 280 811	193 657	55 274	51 083	X	X	
32192	Wood container and pallet manufacturing .....	67 461	685 857	45 202	-	22 259	3	7	
	2002..	66 759	722 999	46 311	-398	20 448	X	X	
321920	Wood container and pallet manufacturing .....	67 461	685 857	45 202	-	22 259	3	7	
	2002..	66 759	722 999	46 311	-398	20 448	X	X	

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			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D			
321	Wood product manufacturing—Con.							
3219	Other wood product manufacturing—Con.							
32199	All other wood product manufacturing .....	2003.. 160 737	2 285 538	128 217	—	32 520	32	2
		2002.. 122 795	1 427 493	90 366	-680	32 429	X	X
321991	Manufactured home (mobile home) manufacturing .....	2003.. 25 920	283 856	19 688	—	6 232	2	3
		2002.. 28 126	301 727	21 314	—	6 812	X	X
321992	Prefabricated wood building manufacturing .....	2003.. 57 360	1 044 212	51 861	—	5 499	79	7
		2002.. 16 739	161 919	11 143	—	5 596	X	X
321999	All other miscellaneous wood product manufacturing .....	2003.. 77 457	957 470	56 669	—	20 788	2	3
		2002.. 77 930	963 847	57 909	-680	20 021	X	X
322	Paper manufacturing .....	2003.. 7 138 822	71 450 739	3 181 244	33 492 749	3 957 578	1	1
		2002.. 6 676 040	71 347 030	3 088 842	34 663 117	3 587 198	X	X
3221	Pulp, paper, and paperboard mills .....	2003.. 5 770 283	57 430 307	2 346 158	33 252 979	3 424 124	1	1
		2002.. 5 466 586	57 975 809	2 301 732	34 442 569	3 164 854	X	X
32211	Pulp mills .....	2003.. 316 629	2 014 316	86 039	3 928 181	230 590	2	1
		2002.. 271 491	1 916 218	81 889	3 527 719	189 602	X	X
322110	Pulp mills .....	2003.. 316 629	2 014 316	86 039	3 928 181	230 590	2	1
		2002.. 271 491	1 916 218	81 889	3 527 719	189 602	X	X
32212	Paper mills .....	2003.. 3 080 896	34 965 686	1 393 419	17 209 598	1 687 478	1	1
		2002.. 3 045 397	35 139 252	1 391 838	18 881 328	1 653 559	X	X
32212M	Paper and newsprint mills .....	2003.. 3 080 896	34 965 686	1 393 419	17 209 598	1 687 478	1	1
		2002.. 3 045 397	35 139 252	1 391 838	18 881 328	1 653 559	X	X
32213	Paperboard mills .....	2003.. 2 372 758	20 450 305	866 701	12 115 200	1 506 057	1	1
		2002.. 2 149 698	20 920 339	828 005	12 033 522	1 321 693	X	X
322130	Paperboard mills .....	2003.. 2 372 758	20 450 305	866 701	12 115 200	1 506 057	1	1
		2002.. 2 149 698	20 920 339	828 005	12 033 522	1 321 693	X	X
3222	Converted paper product manufacturing .....	2003.. 1 368 539	14 020 432	835 086	239 770	533 453	1	1
		2002.. 1 209 454	13 371 221	787 110	220 548	422 344	X	X
32221	Paperboard container manufacturing .....	2003.. 683 055	6 384 094	418 566	D	264 489	1	2
		2002.. 618 020	6 286 499	402 955	2 166	215 065	X	X
32221M	Paperboard container manufacturing .....	2003.. 683 055	6 384 094	418 566	D	264 489	1	2
		2002.. 618 020	6 286 499	402 955	2 166	215 065	X	X
32222	Paper bag and coated and treated paper manufacturing .....	2003.. 335 323	3 348 027	187 484	137 814	147 839	1	1
		2002.. 305 712	3 262 021	178 901	D	126 811	X	X
32222N	Coated and laminated paper and packaging manufacturing .....	2003.. 264 597	2 585 837	142 167	137 814	122 430	1	1
		2002.. 240 661	2 506 349	134 164	D	106 497	X	X
32222P	Coated, uncoated, and multiwall bag and packaging manufacturing .....	2003.. 70 725	762 190	45 317	—	25 408	3	2
		2002.. 65 051	755 672	44 737	—	20 314	X	X
32223	Stationery product manufacturing .....	2003.. 82 240	1 056 420	70 644	68	11 596	5	7
		2002.. 76 122	1 018 458	66 849	-261	9 273	X	X
32223M	Stationery product manufacturing .....	2003.. 82 240	1 056 420	70 644	68	11 596	5	7
		2002.. 76 122	1 018 458	66 849	-261	9 273	X	X
32229	Other converted paper product manufacturing .....	2003.. 267 921	3 231 890	158 391	D	109 531	1	3
		2002.. 209 600	2 804 243	138 405	D	71 195	X	X
322291	Sanitary paper product manufacturing .....	2003.. 180 862	2 302 983	101 122	D	79 740	1	1
		2002.. 130 318	1 941 703	86 648	D	43 670	X	X
322299	All other converted paper product manufacturing .....	2003.. 87 059	928 908	57 268	—	29 791	2	10
		2002.. 79 282	862 540	51 757	D	27 525	X	X
323	Printing and related support activities .....	2003.. 1 242 991	15 105 974	937 980	D	305 012	1	1
		2002.. 1 181 920	14 761 272	913 969	42 410	267 951	X	X
3231	Printing and related support activities .....	2003.. 1 242 991	15 105 974	937 980	D	305 012	1	1
		2002.. 1 181 920	14 761 272	913 969	42 410	267 951	X	X
32311	Printing .....	2003.. 1 191 384	14 524 285	897 443	D	293 940	1	1
		2002.. 1 130 937	14 168 359	872 294	42 410	258 643	X	X
32311M	Printing .....	2003.. 1 191 384	14 524 285	897 443	D	293 940	1	1
		2002.. 1 130 937	14 168 359	872 294	42 410	258 643	X	X
32312	Support activities for printing .....	2003.. 51 608	581 689	40 536	—	11 072	4	10
		2002.. 50 983	592 913	41 675	—	9 308	X	X
32312M	Support activities for printing .....	2003.. 51 608	581 689	40 536	—	11 072	4	10
		2002.. 50 983	592 913	41 675	—	9 308	X	X
324	Petroleum and coal products manufacturing .....	2003.. 7 590 130	39 212 702	1 806 856	12 928 692	5 783 274	1	1
		2002.. 6 502 914	39 250 764	1 697 471	11 945 939	4 805 443	X	X
3241	Petroleum and coal products manufacturing .....	2003.. 7 590 130	39 212 702	1 806 856	12 928 692	5 783 274	1	1
		2002.. 6 502 914	39 250 764	1 697 471	11 945 939	4 805 443	X	X
32411	Petroleum refineries .....	2003.. 6 957 484	36 214 717	1 614 456	12 886 607	5 343 028	1	1
		2002.. 5 938 789	36 238 314	1 502 788	11 887 873	4 435 981	X	X
324110	Petroleum refineries .....	2003.. 6 957 484	36 214 717	1 614 456	12 886 607	5 343 028	1	1
		2002.. 5 938 789	36 238 314	1 502 788	11 887 873	4 435 981	X	X
32412	Asphalt paving, roofing, and saturated materials manufacturing .....	2003.. 515 352	2 159 218	144 700	D	370 651	1	2
		2002.. 457 134	2 103 975	144 106	9 519	313 028	X	X
324121	Asphalt paving mixture and block manufacturing .....	2003.. 392 807	1 338 314	98 237	D	293 849	2	2
		2002.. 354 144	1 342 254	99 615	9 519	254 529	X	X
324122	Asphalt shingle and coating materials manufacturing .....	2003.. 123 265	820 904	46 463	—	76 802	1	1
		2002.. 102 990	761 721	44 491	—	58 499	X	X
32419	Other petroleum and coal products manufacturing .....	2003.. 117 294	838 767	47 699	D	69 595	2	6
		2002.. 107 011	908 475	50 577	48 547	56 434	X	X
324191	Petroleum lubricating oil and grease manufacturing .....	2003.. 64 153	415 376	25 695	D	38 458	2	4
		2002.. 59 794	477 141	27 532	D	32 262	X	X
324199	All other petroleum and coal products manufacturing .....	2003.. 53 141	423 391	22 005	D	31 137	2	12
		2002.. 47 217	431 334	23 045	D	24 172	X	X

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			Purchased		Generated less sold (1,000 kWh)	E		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)					
			A	B	C	D		E	C
325	Chemical manufacturing .....	2003..	16 683 148	158 300 162	7 205 597	37 808 483	9 477 551	7	1
		2002..	13 800 092	148 244 233	6 098 943	36 183 500	7 701 149	X	X
3251	Basic chemical manufacturing .....	2003..	9 503 285	89 897 185	3 719 482	16 250 039	5 783 803	1	1
		2002..	8 136 556	91 242 433	3 341 843	16 146 410	4 794 713	X	X
32511	Petrochemical manufacturing .....	2003..	1 919 394	5 188 808	262 951	3 772 827	1 656 443	1	1
		2002..	1 384 119	5 472 953	203 416	3 100 886	1 180 703	X	X
325110	Petrochemical manufacturing .....	2003..	1 919 394	5 188 808	262 951	3 772 827	1 656 443	1	1
		2002..	1 384 119	5 472 953	203 416	3 100 886	1 180 703	X	X
32512	Industrial gas manufacturing .....	2003..	965 825	21 114 073	867 241	D	98 584	2	4
		2002..	870 803	19 256 915	763 742	D	107 061	X	X
325120	Industrial gas manufacturing .....	2003..	965 825	21 114 073	867 241	D	98 584	2	4
		2002..	870 803	19 256 915	763 742	D	107 061	X	X
32513	Synthetic dye and pigment manufacturing .....	2003..	299 970	3 038 120	127 232	D	172 738	2	3
		2002..	289 006	3 092 524	128 188	D	160 818	X	X
32513M	Synthetic dye and pigment manufacturing .....	2003..	299 970	3 038 120	127 232	D	172 738	2	3
		2002..	289 006	3 092 524	128 188	D	160 818	X	X
32518	Other basic inorganic chemical manufacturing .....	2003..	2 096 658	33 486 916	1 255 122	D	841 537	1	1
		2002..	1 964 679	38 010 200	1 232 926	4 875 315	731 753	X	X
325181	Alkalies and chlorine manufacturing .....	2003..	845 815	14 139 729	427 736	D	418 079	1	1
		2002..	729 378	12 024 809	392 719	D	336 659	X	X
325182	Carbon black manufacturing .....	2003..	61 978	704 877	37 480	D	24 499	3	4
		2002..	48 084	607 970	30 480	—	17 604	X	X
325188	All other basic inorganic chemical manufacturing .....	2003..	1 188 865	18 642 310	789 906	145 301	398 959	1	3
		2002..	1 187 217	25 377 421	809 727	D	377 490	X	X
32519	Other basic organic chemical manufacturing .....	2003..	4 221 439	27 069 268	1 206 937	7 274 710	3 014 502	3	1
		2002..	3 627 949	25 409 841	1 013 571	8 187 487	2 614 378	X	X
32519M	Other basic organic chemical manufacturing .....	2003..	4 221 439	27 069 268	1 206 937	7 274 710	3 014 502	3	1
		2002..	3 627 949	25 409 841	1 013 571	8 187 487	2 614 378	X	X
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	2003..	3 416 833	26 780 065	1 312 485	17 394 815	2 104 347	1	1
		2002..	2 754 104	28 460 914	1 183 132	16 365 670	1 570 972	X	X
32521	Resin and synthetic rubber manufacturing .....	2003..	2 998 008	22 206 090	1 125 740	16 507 863	1 872 269	1	1
		2002..	2 375 289	23 856 939	1 000 833	15 320 695	1 374 456	X	X
325211	Plastics material and resin manufacturing .....	2003..	2 664 297	19 778 954	1 002 596	D	1 661 702	1	1
		2002..	2 130 289	21 979 427	911 829	D	1 218 460	X	X
325212	Synthetic rubber manufacturing .....	2003..	333 711	2 427 136	123 144	D	210 567	1	2
		2002..	245 000	1 877 512	89 004	D	155 996	X	X
32522	Artificial and synthetic fibers and filaments manufacturing .....	2003..	418 824	4 573 975	186 746	886 952	232 079	1	1
		2002..	378 815	4 603 975	182 299	1 044 975	196 516	X	X
32522M	Artificial and synthetic fibers and filaments manufacturing .....	2003..	418 824	4 573 975	186 746	886 952	232 079	1	1
		2002..	378 815	4 603 975	182 299	1 044 975	196 516	X	X
3253	Pesticide, fertilizer, and other agricultural chemical manufacturing .....	2003..	880 237	6 913 871	322 915	1 803 732	557 322	1	4
		2002..	786 278	6 431 392	282 991	1 829 643	503 287	X	X
32531	Fertilizer manufacturing .....	2003..	760 596	5 752 273	261 721	1 803 732	498 875	1	4
		2002..	693 219	5 293 256	229 737	1 829 643	463 482	X	X
325311	Nitrogenous fertilizer manufacturing .....	2003..	582 066	3 550 406	154 405	D	427 662	1	5
		2002..	524 907	3 222 610	130 200	402 286	394 707	X	X
325312	Phosphatic fertilizer manufacturing .....	2003..	142 979	1 902 285	89 325	D	53 654	1	1
		2002..	134 378	1 789 655	83 005	1 427 357	51 373	X	X
325314	Fertilizer (mixing only) manufacturing .....	2003..	35 550	299 581	17 992	—	17 559	6	9
		2002..	33 934	280 991	16 532	—	17 402	X	X
32532	Pesticide and other agricultural chemical manufacturing .....	2003..	119 641	1 161 599	61 193	—	58 448	1	3
		2002..	93 059	1 138 136	53 254	—	39 805	X	X
325320	Pesticide and other agricultural chemical manufacturing .....	2003..	119 641	1 161 599	61 193	—	58 448	1	3
		2002..	93 059	1 138 136	53 254	—	39 805	X	X
3254	Pharmaceutical and medicine manufacturing .....	2003..	1 539 124	22 742 889	1 126 940	1 052 380	412 183	45	7
		2002..	921 388	10 275 033	600 197	903 927	321 191	X	X
32541	Pharmaceutical and medicine manufacturing .....	2003..	1 539 124	22 742 889	1 126 940	1 052 380	412 183	45	7
		2002..	921 388	10 275 033	600 197	903 927	321 191	X	X
325411	Medicinal and botanical manufacturing .....	2003..	177 855	1 469 431	82 216	D	95 638	3	1
		2002..	155 768	1 383 809	79 656	D	76 112	X	X
325412	Pharmaceutical preparation manufacturing .....	2003..	1 238 558	19 907 912	956 357	769 605	282 200	53	10
		2002..	613 538	6 671 799	401 331	614 922	212 207	X	X
325413	In-vitro diagnostic substance manufacturing .....	2003..	43 559	518 872	36 334	D	7 226	5	1
		2002..	72 570	1 138 877	64 903	22	7 667	X	X
325414	Biological product (except diagnostic) manufacturing .....	2003..	79 152	846 674	52 033	D	27 119	1	2
		2002..	79 512	1 080 548	54 307	D	25 205	X	X
3255	Paint, coating, and adhesive manufacturing .....	2003..	257 667	2 629 155	166 141	150	91 526	2	3
		2002..	227 468	2 486 270	153 247	-15 558	74 221	X	X
32551	Paint and coating manufacturing .....	2003..	155 165	1 688 646	105 881	D	49 284	1	2
		2002..	143 934	1 662 766	101 106	D	42 828	X	X
325510	Paint and coating manufacturing .....	2003..	155 165	1 688 646	105 881	D	49 284	1	2
		2002..	143 934	1 662 766	101 106	D	42 828	X	X
32552	Adhesive manufacturing .....	2003..	102 502	940 508	60 260	D	42 242	5	6
		2002..	83 534	823 504	52 141	D	31 393	X	X
325520	Adhesive manufacturing .....	2003..	102 502	940 508	60 260	D	42 242	5	6
		2002..	83 534	823 504	52 141	D	31 393	X	X

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			Quantity (1,000 kWh)	Cost (\$1,000)					
		A	B	C	D	E	C	E	
325	Chemical manufacturing—Con.								
3256	Soap, cleaning compound, and toilet preparation manufacturing .....	2003.. 466 528	3 687 986	221 774	431 718	244 754	2	1	
		2002.. 411 168	3 744 262	225 042	127 905	186 126	X	X	
32561	Soap and cleaning compound manufacturing .....	2003.. 337 326	2 204 235	128 513	D	208 813	2	1	
		2002.. 295 200	2 507 969	140 466	D	154 734	X	X	
32561M	Soap and cleaning compound manufacturing .....	2003.. 337 326	2 204 235	128 513	D	208 813	2	1	
		2002.. 295 200	2 507 969	140 466	D	154 734	X	X	
32562	Toilet preparation manufacturing .....	2003.. 129 202	1 483 751	93 262	D	35 941	4	4	
		2002.. 115 968	1 236 293	84 576	D	31 392	X	X	
325620	Toilet preparation manufacturing .....	2003.. 129 202	1 483 751	93 262	D	35 941	4	4	
		2002.. 115 968	1 236 293	84 576	D	31 392	X	X	
3259	Other chemical product and preparation manufacturing .....	2003.. 619 474	5 649 012	335 859	875 649	283 615	1	1	
		2002.. 563 130	5 603 929	312 491	825 503	250 639	X	X	
32591	Printing ink manufacturing .....	2003.. 25 683	282 854	19 737	—	5 945	4	8	
		2002.. 26 987	279 746	20 234	D	6 753	X	X	
325910	Printing ink manufacturing .....	2003.. 25 683	282 854	19 737	—	5 945	4	8	
		2002.. 26 987	279 746	20 234	D	6 753	X	X	
32592	Explosives manufacturing .....	2003.. 16 649	160 411	7 632	D	9 017	4	7	
		2002.. 15 311	166 110	8 360	D	6 951	X	X	
325920	Explosives manufacturing .....	2003.. 16 649	160 411	7 632	D	9 017	4	7	
		2002.. 15 311	166 110	8 360	D	6 951	X	X	
32599	All other chemical product and preparation manufacturing .....	2003.. 577 142	5 205 746	308 490	D	268 653	1	1	
		2002.. 520 832	5 158 073	283 897	782 203	236 935	X	X	
325991	Custom compounding of purchased resins .....	2003.. 159 136	2 012 929	126 107	—	33 029	1	1	
		2002.. 147 274	2 060 641	118 564	-2 714	28 710	X	X	
32599N	All other miscellaneous chemical product and preparation manufacturing (including photographic) .....	2003.. 418 007	3 192 817	182 383	D	235 624	1	1	
		2002.. 373 558	3 097 432	165 333	784 917	208 225	X	X	
326	Plastics and rubber products manufacturing .....	2003.. 3 901 009	54 651 297	3 040 618	150 749	860 391	1	1	
		2002.. 3 734 002	53 834 103	2 987 474	185 801	746 528	X	X	
3261	Plastics product manufacturing .....	2003.. 3 175 239	45 107 952	2 576 033	98 561	599 206	1	2	
		2002.. 3 053 093	44 392 354	2 529 849	D	523 244	X	X	
32611	Unsupported plastics film, sheet, and bag manufacturing .....	2003.. 706 264	10 581 219	551 827	62 636	154 437	2	2	
		2002.. 685 390	10 127 318	536 578	D	148 812	X	X	
326111	Plastics bag manufacturing .....	2003.. 173 811	2 904 937	155 445	D	18 366	1	7	
		2002.. 154 222	2 468 859	135 606	D	18 616	X	X	
326112	Plastics packaging film and sheet (including laminated) manufacturing .....	2003.. 174 993	2 473 219	129 264	—	45 729	1	3	
		2002.. 160 242	2 320 400	122 306	D	37 936	X	X	
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	2003.. 357 460	5 203 063	267 118	D	90 342	4	2	
		2002.. 370 926	5 338 059	278 666	D	92 260	X	X	
32612	Plastics pipe, pipe fitting, and unsupported profile shape manufacturing .....	2003.. 273 542	3 901 471	238 196	D	35 345	1	6	
		2002.. 261 934	4 031 420	234 249	890	27 685	X	X	
326121	Unsupported plastics profile shape manufacturing .....	2003.. 144 401	1 759 706	116 237	D	28 164	2	7	
		2002.. 134 487	1 896 708	114 256	D	20 231	X	X	
326122	Plastics pipe and pipe fitting manufacturing .....	2003.. 129 141	2 141 785	121 959	—	7 182	1	7	
		2002.. 127 447	2 134 712	119 993	D	7 454	X	X	
32613	Laminated plastics plate, sheet, and shape manufacturing .....	2003.. 58 749	539 240	31 484	D	27 265	1	1	
		2002.. 55 391	500 493	30 308	D	25 083	X	X	
326130	Laminated plastics plate, sheet, and shape manufacturing .....	2003.. 58 749	539 240	31 484	D	27 265	1	1	
		2002.. 55 391	500 493	30 308	D	25 083	X	X	
32614	Polystyrene foam product manufacturing .....	2003.. 199 562	1 992 888	114 388	—	85 174	5	9	
		2002.. 188 392	1 967 876	113 686	1 795	74 706	X	X	
326140	Polystyrene foam product manufacturing .....	2003.. 199 562	1 992 888	114 388	—	85 174	5	9	
		2002.. 188 392	1 967 876	113 686	1 795	74 706	X	X	
32615	Urethane and other foam product (except polystyrene) manufacturing .....	2003.. 80 698	852 915	51 235	D	29 463	3	7	
		2002.. 79 396	896 068	54 788	D	24 608	X	X	
326150	Urethane and other foam product (except polystyrene) manufacturing .....	2003.. 80 698	852 915	51 235	D	29 463	3	7	
		2002.. 79 396	896 068	54 788	D	24 608	X	X	
32616	Plastics bottle manufacturing .....	2003.. 320 123	5 355 346	305 362	-5	14 761	1	2	
		2002.. 316 810	5 451 992	302 351	D	14 459	X	X	
326160	Plastics bottle manufacturing .....	2003.. 320 123	5 355 346	305 362	-5	14 761	1	2	
		2002.. 316 810	5 451 992	302 351	D	14 459	X	X	
32619	Other plastics product manufacturing .....	2003.. 1 536 301	21 884 874	1 283 540	D	252 761	1	2	
		2002.. 1 465 780	21 417 187	1 257 889	37 514	207 891	X	X	
32619M	Other plastics product manufacturing .....	2003.. 1 536 301	21 884 874	1 283 540	D	252 761	1	2	
		2002.. 1 465 780	21 417 187	1 257 889	37 514	207 891	X	X	
3262	Rubber product manufacturing .....	2003.. 725 770	9 543 345	464 585	52 188	261 185	1	1	
		2002.. 680 909	9 441 749	457 625	D	223 284	X	X	
32621	Tire manufacturing .....	2003.. 362 522	5 077 804	210 771	D	151 751	1	1	
		2002.. 331 053	5 078 301	204 977	D	126 076	X	X	
32621M	Tire manufacturing .....	2003.. 362 522	5 077 804	210 771	D	151 751	1	1	
		2002.. 331 053	5 078 301	204 977	D	126 076	X	X	
32622	Rubber and plastics hoses and belting manufacturing .....	2003.. 81 924	958 348	53 026	D	28 897	2	2	
		2002.. 74 319	940 380	50 795	D	23 524	X	X	
326220	Rubber and plastics hoses and belting manufacturing .....	2003.. 81 924	958 348	53 026	D	28 897	2	2	
		2002.. 74 319	940 380	50 795	D	23 524	X	X	

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			Quantity (1,000 kWh)	Cost (\$1,000)					C
		A	B	C	D	E	C	E	
326	Plastics and rubber products manufacturing—Con.								
3262	Rubber product manufacturing—Con.								
32629	Other rubber product manufacturing .....	2003.. 281 324	3 507 193	200 787	D	80 536	2	3	
		2002.. 275 537	3 423 068	201 853	D	73 684	X	X	
32629M	Other rubber product manufacturing .....	2003.. 281 324	3 507 193	200 787	D	80 536	2	3	
		2002.. 275 537	3 423 068	201 853	D	73 684	X	X	
327	Nonmetallic mineral product manufacturing .....	2003.. 5 059 298	40 820 512	2 052 701	519 199	3 006 597	1	1	
		2002.. 4 677 458	40 839 882	1 991 972	190 334	2 685 486	X	X	
3271	Clay product and refractory manufacturing .....	2003.. 556 862	2 951 896	169 133	D	387 729	1	2	
		2002.. 514 405	2 971 330	168 648	3 061	345 757	X	X	
32711	Pottery, ceramics, and plumbing fixture manufacturing .....	2003.. 131 561	918 540	54 596	D	76 965	1	1	
		2002.. 138 005	986 126	57 497	D	80 508	X	X	
327111	Vitreous china plumbing fixture and china and earthenware bathroom accessories manufacturing .....	2003.. 41 123	232 211	11 007	D	30 116	2	2	
		2002.. 46 810	252 791	12 235	—	34 575	X	X	
327112	Vitreous china, fine earthenware, and other pottery product manufacturing .....	2003.. 43 110	263 227	18 005	D	25 105	2	3	
		2002.. 42 782	265 729	17 281	—	25 501	X	X	
327113	Porcelain electrical supply manufacturing .....	2003.. 47 328	423 101	25 584	—	21 744	2	1	
		2002.. 48 413	467 606	27 981	5 156	20 432	X	X	
32712	Clay building material and refractories manufacturing .....	2003.. 425 301	2 033 356	114 537	—	310 764	2	3	
		2002.. 376 400	1 985 204	111 151	D	265 249	X	X	
327121	Brick and structural clay tile manufacturing .....	2003.. 250 044	937 456	50 931	—	199 114	3	2	
		2002.. 221 549	884 314	50 206	D	171 343	X	X	
327122	Ceramic wall and floor tile manufacturing .....	2003.. 63 640	414 180	23 135	—	40 505	1	2	
		2002.. 60 637	426 217	23 035	—	37 602	X	X	
327123	Other structural clay product manufacturing .....	2003.. 19 244	64 097	5 326	—	13 918	1	1	
		2002.. 18 889	61 422	5 004	D	13 885	X	X	
32712N	Refractory manufacturing .....	2003.. 92 373	617 622	35 146	—	57 227	4	12	
		2002.. 75 325	613 251	32 906	D	42 419	X	X	
3272	Glass and glass product manufacturing .....	2003.. 1 497 842	13 158 315	622 467	1 846	875 375	1	1	
		2002.. 1 349 255	12 924 486	593 627	—	755 628	X	X	
32721	Glass and glass product manufacturing .....	2003.. 1 497 842	13 158 315	622 467	1 846	875 375	1	1	
		2002.. 1 349 255	12 924 486	593 627	—	755 628	X	X	
327211	Flat glass manufacturing .....	2003.. 351 927	2 390 044	101 119	—	250 808	1	2	
		2002.. 325 010	2 261 557	94 601	—	230 409	X	X	
327212	Other pressed and blown glass and glassware manufacturing .....	2003.. 398 302	3 572 732	163 560	1 846	234 743	1	1	
		2002.. 372 154	3 687 029	163 387	—	208 787	X	X	
327213	Glass container manufacturing .....	2003.. 511 204	3 944 297	185 411	—	325 793	1	2	
		2002.. 434 738	3 970 966	177 053	—	257 685	X	X	
327215	Glass product manufacturing made of purchased glass .....	2003.. 236 409	3 251 241	172 377	—	64 032	1	2	
		2002.. 217 353	3 004 934	158 586	—	58 767	X	X	
3273	Cement and concrete product manufacturing .....	2003.. 1 636 797	15 371 634	794 089	473 798	842 709	2	1	
		2002.. 1 591 363	15 370 629	764 394	159 196	826 969	X	X	
32731	Cement manufacturing .....	2003.. 1 158 499	12 478 609	588 758	460 521	569 741	1	1	
		2002.. 1 114 897	12 286 667	548 957	D	565 940	X	X	
327310	Cement manufacturing .....	2003.. 1 158 499	12 478 609	588 758	460 521	569 741	1	1	
		2002.. 1 114 897	12 286 667	548 957	D	565 940	X	X	
32732	Ready-mix concrete manufacturing .....	2003.. 279 177	1 531 268	107 631	13 145	171 546	2	3	
		2002.. 264 479	1 424 040	100 468	5 936	164 011	X	X	
327320	Ready-mix concrete manufacturing .....	2003.. 279 177	1 531 268	107 631	13 145	171 546	2	3	
		2002.. 264 479	1 424 040	100 468	5 936	164 011	X	X	
32733	Concrete pipe, brick, and block manufacturing .....	2003.. 81 167	501 348	37 981	—	43 187	41	2	
		2002.. 94 078	780 616	53 669	D	40 409	X	X	
32733M	Concrete pipe, brick, and block manufacturing .....	2003.. 81 167	501 348	37 981	—	43 187	41	2	
		2002.. 94 078	780 616	53 669	D	40 409	X	X	
32739	Other concrete product manufacturing .....	2003.. 117 953	860 408	59 719	132	58 235	2	2	
		2002.. 117 909	879 306	61 300	-1 354	56 609	X	X	
327390	Other concrete product manufacturing .....	2003.. 117 953	860 408	59 719	132	58 235	2	2	
		2002.. 117 909	879 306	61 300	-1 354	56 609	X	X	
3274	Lime and gypsum product manufacturing .....	2003.. 711 483	3 159 385	159 197	—	552 286	1	2	
		2002.. 601 793	2 904 633	148 687	D	453 106	X	X	
32741	Lime manufacturing .....	2003.. 222 930	1 353 601	58 079	—	164 851	1	2	
		2002.. 214 677	1 238 556	56 708	—	157 969	X	X	
327410	Lime manufacturing .....	2003.. 222 930	1 353 601	58 079	—	164 851	1	2	
		2002.. 214 677	1 238 556	56 708	—	157 969	X	X	
32742	Gypsum product manufacturing .....	2003.. 488 553	1 805 784	101 118	—	387 435	2	2	
		2002.. 387 116	1 666 077	91 979	D	295 137	X	X	
327420	Gypsum product manufacturing .....	2003.. 488 553	1 805 784	101 118	—	387 435	2	2	
		2002.. 387 116	1 666 077	91 979	D	295 137	X	X	
3279	Other nonmetallic mineral product manufacturing .....	2003.. 656 314	6 179 283	307 815	D	348 499	1	2	
		2002.. 620 642	6 668 804	316 616	D	304 026	X	X	
32791	Abrasive product manufacturing .....	2003.. 70 480	802 928	44 873	1 568	25 607	4	5	
		2002.. 84 291	1 224 312	57 422	10 227	26 869	X	X	
327910	Abrasive product manufacturing .....	2003.. 70 480	802 928	44 873	1 568	25 607	4	5	
		2002.. 84 291	1 224 312	57 422	10 227	26 869	X	X	

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			Purchased		Generated less sold (1,000 kWh)	C		E	
			Quantity (1,000 kWh)	Cost (\$1,000)					C
		A	B	C	D	E	C	E	
327	Nonmetallic mineral product manufacturing—Con.								
3279	Other nonmetallic mineral product manufacturing—Con.								
32799	All other nonmetallic mineral product manufacturing . . . . .	2003.. 585 834	5 376 355	262 942	D	322 892	1	2	
		2002.. 536 351	5 444 492	259 194	-6 108	277 157	X	X	
327991	Cut stone and stone product manufacturing . . . . .	2003.. 37 576	377 001	24 892	-	12 684	2	3	
		2002.. 34 255	354 523	23 505	D	10 750	X	X	
327992	Ground or treated mineral and earth manufacturing . . . . .	2003.. 154 574	1 234 171	62 689	D	91 885	2	2	
		2002.. 126 471	1 090 322	55 623	D	70 848	X	X	
327993	Mineral wool manufacturing . . . . .	2003.. 355 336	3 494 275	158 506	-	196 830	2	3	
		2002.. 339 214	3 704 236	162 657	D	176 557	X	X	
327999	All other miscellaneous nonmetallic mineral product manufacturing . . . . .	2003.. 38 348	270 908	16 854	-	21 494	8	4	
		2002.. 36 411	295 411	17 409	D	19 002	X	X	
331	Primary metal manufacturing . . . . .	2003.. 8 653 797	125 214 904	4 543 929	3 547 460	4 109 868	1	1	
		2002.. 8 101 052	135 300 495	4 679 250	2 059 464	3 421 802	X	X	
3311	Iron and steel mills and ferroalloy manufacturing . . . . .	2003.. 4 241 477	50 791 940	1 805 095	2 828 996	2 436 382	1	1	
		2002.. 3 751 572	53 294 692	1 799 249	2 180 643	1 952 323	X	X	
33111	Iron and steel mills and ferroalloy manufacturing . . . . .	2003.. 4 241 477	50 791 940	1 805 095	2 828 996	2 436 382	1	1	
		2002.. 3 751 572	53 294 692	1 799 249	2 180 643	1 952 323	X	X	
33111M	Iron and steel mills and ferroalloy manufacturing . . . . .	2003.. 4 241 477	50 791 940	1 805 095	2 828 996	2 436 382	1	1	
		2002.. 3 751 572	53 294 692	1 799 249	2 180 643	1 952 323	X	X	
3312	Steel product manufacturing from purchased steel . . . . .	2003.. 391 382	4 402 267	236 205	D	155 177	2	3	
		2002.. 386 683	4 523 900	238 571	D	148 112	X	X	
33121	Iron and steel pipe and tube manufacturing from purchased steel . . . . .	2003.. 119 352	1 278 288	75 987	D	43 365	2	3	
		2002.. 107 714	1 247 716	73 577	D	34 137	X	X	
331210	Iron and steel pipe and tube manufacturing from purchased steel . . . . .	2003.. 119 352	1 278 288	75 987	D	43 365	2	3	
		2002.. 107 714	1 247 716	73 577	D	34 137	X	X	
33122	Rolling and drawing of purchased steel . . . . .	2003.. 272 030	3 123 980	160 217	-	111 813	2	5	
		2002.. 278 969	3 276 184	164 994	-	113 975	X	X	
33122M	Rolling and drawing of purchased steel . . . . .	2003.. 272 030	3 123 980	160 217	-	111 813	2	5	
		2002.. 278 969	3 276 184	164 994	-	113 975	X	X	
3313	Alumina and aluminum production and processing . . . . .	2003.. 2 079 567	44 498 706	1 339 457	D	740 110	1	1	
		2002.. 2 007 475	49 105 816	1 401 330	-1 605 523	606 145	X	X	
33131	Alumina and aluminum production and processing . . . . .	2003.. 2 079 567	44 498 706	1 339 457	D	740 110	1	1	
		2002.. 2 007 475	49 105 816	1 401 330	-1 605 523	606 145	X	X	
331311	Alumina refining . . . . .	2003.. D	235 651	11 515	D	D	1	S	
		2002.. D	231 302	13 227	D	D	X	X	
331312	Primary aluminum production . . . . .	2003.. 1 126 935	37 020 732	1 021 406	D	105 529	1	1	
		2002.. 1 172 890	41 346 387	1 074 411	D	98 479	X	X	
331314	Secondary smelting and alloying of aluminum . . . . .	2003.. D	1 128 407	46 508	-	D	1	S	
		2002.. D	1 347 590	50 029	D	D	X	X	
331316	Aluminum extruded product manufacturing . . . . .	2003.. 184 657	1 547 750	91 412	-	93 245	2	1	
		2002.. 200 735	1 863 046	98 667	D	102 068	X	X	
33131N	Aluminum rolling and drawing . . . . .	2003.. 421 718	4 566 165	168 617	-	253 101	1	1	
		2002.. 379 327	4 317 491	164 996	D	214 331	X	X	
3314	Nonferrous metal (except aluminum) production and processing . . . . .	2003.. 693 604	9 281 899	403 157	1 619 412	290 447	2	1	
		2002.. 722 390	11 940 422	470 529	D	251 861	X	X	
33141	Nonferrous metal (except aluminum) smelting and refining . . . . .	2003.. 229 954	3 831 313	124 246	D	105 708	6	1	
		2002.. 232 789	4 071 202	140 062	1 475 340	92 727	X	X	
331411	Primary smelting and refining of copper . . . . .	2003.. 62 954	489 186	16 822	D	46 132	1	1	
		2002.. 86 459	D	D	D	D	X	X	
331419	Primary smelting and refining of nonferrous metal (except copper and aluminum) . . . . .	2003.. 167 001	3 342 127	107 424	D	59 576	7	1	
		2002.. 146 330	D	D	D	D	X	X	
33142	Copper rolling, drawing, extruding, and alloying . . . . .	2003.. 226 779	2 692 227	140 734	D	86 045	1	1	
		2002.. 219 543	2 870 481	149 636	D	69 907	X	X	
33142M	Copper rolling, drawing, extruding, and alloying . . . . .	2003.. 226 779	2 692 227	140 734	D	86 045	1	1	
		2002.. 219 543	2 870 481	149 636	D	69 907	X	X	
33149	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying . . . . .	2003.. 236 871	2 758 359	138 177	-	98 694	1	2	
		2002.. 270 058	4 998 739	180 831	-	89 227	X	X	
33149M	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying . . . . .	2003.. 236 871	2 758 359	138 177	-	98 694	1	2	
		2002.. 270 058	4 998 739	180 831	-	89 227	X	X	
3315	Foundries . . . . .	2003.. 1 247 767	16 240 092	760 016	-	487 752	1	4	
		2002.. 1 232 932	16 435 665	769 571	D	463 361	X	X	
33151	Ferrous metal foundries . . . . .	2003.. 844 796	12 580 173	543 050	-	301 746	1	2	
		2002.. 842 370	12 481 498	553 654	-	288 716	X	X	
33151M	Ferrous metal foundries . . . . .	2003.. 844 796	12 580 173	543 050	-	301 746	1	2	
		2002.. 842 370	12 481 498	553 654	-	288 716	X	X	
33152	Nonferrous metal foundries . . . . .	2003.. 402 971	3 659 919	216 966	-	186 006	3	11	
		2002.. 390 562	3 954 167	215 917	D	174 645	X	X	
33152N	Aluminum foundries . . . . .	2003.. 301 348	2 589 494	150 233	-	151 115	4	14	
		2002.. 289 187	2 855 186	148 058	D	141 129	X	X	
33152P	Foundries not aluminum . . . . .	2003.. 101 623	1 070 425	66 733	-	34 891	2	3	
		2002.. 101 375	1 098 981	67 859	-	33 516	X	X	

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			Quantity (1,000 kWh)	Cost (\$1,000)					
			A	B	C	D		E	C
332	Fabricated metal product manufacturing .....	4 032 116	42 486 889	2 596 246	339 355	1 435 870	1	1	
	2002..	3 781 725	40 872 258	2 521 441	104 282	1 260 284	X	X	
3321	Forging and stamping .....	514 202	4 877 294	302 269	32 362	211 933	1	1	
	2002..	486 988	4 903 040	294 921	5 732	192 067	X	X	
33211	Forging and stamping .....	514 202	4 877 294	302 269	32 362	211 933	1	1	
	2002..	486 988	4 903 040	294 921	5 732	192 067	X	X	
332114	Custom roll forming .....	56 733	461 857	29 702	—	27 031	2	2	
	2002..	51 412	435 532	28 671	D	22 741	X	X	
332117	Powder metallurgy parts manufacturing .....	41 860	472 022	28 437	—	13 423	2	11	
	2002..	42 458	651 299	28 836	D	13 622	X	X	
33211N	Forging .....	260 948	2 321 821	138 148	D	122 800	1	2	
	2002..	247 896	2 296 730	136 815	—	111 081	X	X	
33211P	Crown, closure, and metal stamping manufacturing .....	154 661	1 621 594	105 982	D	48 679	2	2	
	2002..	145 222	1 519 479	100 599	D	44 623	X	X	
3322	Cutlery and handtool manufacturing .....	135 053	1 463 693	93 591	D	41 462	2	3	
	2002..	139 772	1 511 383	97 939	D	41 833	X	X	
33221	Cutlery and hand tool manufacturing .....	135 053	1 463 693	93 591	D	41 462	2	3	
	2002..	139 772	1 511 383	97 939	D	41 833	X	X	
33221N	Cutlery, kitchen utensil, pot, and pan manufacturing .....	42 543	394 893	26 021	D	16 522	8	6	
	2002..	39 182	372 634	23 704	D	15 478	X	X	
33221P	Hand tool and saw blade manufacturing .....	92 509	1 068 800	67 570	D	24 940	1	3	
	2002..	100 590	1 138 749	74 235	D	26 355	X	X	
3323	Architectural and structural metals manufacturing .....	600 615	6 570 686	399 964	—	200 651	4	7	
	2002..	534 777	5 546 172	362 167	-3 140	172 610	X	X	
33231	Plate work and fabricated structural product manufacturing .....	311 529	3 706 627	209 327	1 183	102 203	6	11	
	2002..	260 968	2 752 194	173 986	2 876	86 982	X	X	
33231M	Plate work and fabricated structural product manufacturing .....	311 529	3 706 627	209 327	1 183	102 203	6	11	
	2002..	260 968	2 752 194	173 986	2 876	86 982	X	X	
33232	Ornamental and architectural metal work manufacturing .....	289 086	2 864 059	190 637	1 957	98 448	3	9	
	2002..	273 809	2 793 978	188 181	-19 649	85 628	X	X	
33232M	Ornamental and architectural metal work manufacturing .....	289 086	2 864 059	190 637	1 957	98 448	3	9	
	2002..	273 809	2 793 978	188 181	-19 649	85 628	X	X	
3324	Boiler, tank, and shipping container manufacturing .....	404 257	4 315 843	247 498	—	156 759	2	4	
	2002..	369 112	4 303 870	249 965	D	119 147	X	X	
33241	Power boiler and heat exchanger manufacturing .....	47 189	476 518	29 028	—	18 161	3	5	
	2002..	47 395	498 151	30 508	D	16 887	X	X	
332410	Power boiler and heat exchanger manufacturing .....	47 189	476 518	29 028	—	18 161	3	5	
	2002..	47 395	498 151	30 508	D	16 887	X	X	
33242	Metal tank (heavy gauge) manufacturing .....	71 949	614 502	38 753	—	33 196	3	20	
	2002..	60 568	611 496	39 414	1 944	21 154	X	X	
332420	Metal tank (heavy gauge) manufacturing .....	71 949	614 502	38 753	—	33 196	3	20	
	2002..	60 568	611 496	39 414	1 944	21 154	X	X	
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	285 120	3 224 823	179 717	—	105 402	2	2	
	2002..	261 149	3 194 223	180 043	—	81 106	X	X	
33243M	Metal can, box, and other metal container (light gauge) manufacturing .....	285 120	3 224 823	179 717	—	105 402	2	2	
	2002..	261 149	3 194 223	180 043	—	81 106	X	X	
3325	Hardware manufacturing .....	96 127	1 035 819	64 807	D	31 320	1	2	
	2002..	95 056	1 075 271	67 582	4 875	27 474	X	X	
33251	Hardware manufacturing .....	96 127	1 035 819	64 807	D	31 320	1	2	
	2002..	95 056	1 075 271	67 582	4 875	27 474	X	X	
332510	Hardware manufacturing .....	96 127	1 035 819	64 807	D	31 320	1	2	
	2002..	95 056	1 075 271	67 582	4 875	27 474	X	X	
3326	Spring and wire product manufacturing .....	146 242	1 498 025	95 062	3 513	51 181	3	3	
	2002..	131 375	1 360 916	86 225	2 579	45 150	X	X	
33261	Spring and wire product manufacturing .....	146 242	1 498 025	95 062	3 513	51 181	3	3	
	2002..	131 375	1 360 916	86 225	2 579	45 150	X	X	
33261M	Spring and wire product manufacturing .....	146 242	1 498 025	95 062	3 513	51 181	3	3	
	2002..	131 375	1 360 916	86 225	2 579	45 150	X	X	
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	642 881	7 617 405	500 063	13 242	142 818	2	3	
	2002..	581 186	7 018 704	466 843	19 913	114 343	X	X	
33271	Machine shops .....	375 762	4 540 643	292 992	2 809	82 770	3	5	
	2002..	331 270	4 136 637	270 486	-1 497	60 784	X	X	
332710	Machine shops .....	375 762	4 540 643	292 992	2 809	82 770	3	5	
	2002..	331 270	4 136 637	270 486	-1 497	60 784	X	X	
33272	Turned product and screw, nut, and bolt manufacturing .....	267 119	3 076 762	207 071	10 433	60 048	1	2	
	2002..	249 916	2 882 067	196 357	21 410	53 559	X	X	
332721	Precision turned product manufacturing .....	131 613	1 613 566	107 354	D	24 258	2	5	
	2002..	126 573	1 574 461	105 781	-176	20 792	X	X	
332722	Bolt, nut, screw, rivet, and washer manufacturing .....	135 506	1 463 196	99 717	D	35 789	2	2	
	2002..	123 343	1 307 606	90 576	21 586	32 767	X	X	
3328	Coating, engraving, heat treating, and allied activities .....	763 092	6 489 617	387 989	36 465	375 103	2	2	
	2002..	744 272	6 761 741	401 227	25 210	343 045	X	X	
33281	Coating, engraving, heat treating, and allied activities .....	763 092	6 489 617	387 989	36 465	375 103	2	2	
	2002..	744 272	6 761 741	401 227	25 210	343 045	X	X	
33281M	Coating, engraving, heat treating, and allied activities .....	763 092	6 489 617	387 989	36 465	375 103	2	2	
	2002..	744 272	6 761 741	401 227	25 210	343 045	X	X	

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			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
332	Fabricated metal product manufacturing—Con.							
3329	Other fabricated metal product manufacturing .....	2003.. 729 646	8 618 506	505 002	188 682	224 644	1	2
		2002.. 699 187	8 391 161	494 572	-5 309	204 615	X	X
33291	Metal valve manufacturing .....	2003.. 226 722	3 038 390	179 803	D	46 919	2	2
		2002.. 211 100	2 814 613	167 976	-4 708	43 124	X	X
332913	Plumbing fixture fitting and trim manufacturing .....	2003.. 24 704	276 262	17 821	D	6 883	2	8
		2002.. 24 751	281 481	18 167	D	5 184	X	X
33291N	Valve and fitting (except plumbing) manufacturing .....	2003.. 202 018	2 762 128	161 982	D	40 036	3	2
		2002.. 186 349	2 533 132	149 809	D	36 540	X	X
33299	All other fabricated metal product manufacturing .....	2003.. 502 924	5 580 116	325 199	D	177 725	1	2
		2002.. 488 087	5 576 548	326 596	-601	161 491	X	X
332991	Ball and roller bearing manufacturing .....	2003.. 121 230	1 708 696	88 264	-	32 965	1	2
		2002.. 119 249	1 798 847	90 634	-	28 615	X	X
332992	Small arms ammunition manufacturing .....	2003.. 21 086	248 445	11 311	-	9 775	1	7
		2002.. 18 508	256 073	11 144	-	7 364	X	X
332993	Ammunition (except small arms) manufacturing .....	2003.. 26 538	259 337	15 303	D	11 235	3	1
		2002.. 24 667	211 069	14 644	-	10 023	X	X
332994	Small arms manufacturing .....	2003.. 20 283	181 558	15 066	-	5 217	1	3
		2002.. 19 073	180 778	14 896	-	4 177	X	X
332995	Other ordnance and accessories manufacturing .....	2003.. 14 544	170 965	9 783	-	4 761	1	1
		2002.. 12 261	145 744	8 273	-	3 988	X	X
332996	Fabricated pipe and pipe fitting manufacturing .....	2003.. 46 879	513 066	34 339	D	12 540	3	2
		2002.. 46 291	505 172	32 670	D	13 621	X	X
33299N	Other fabricated metal products manufacturing .....	2003.. 252 364	2 498 048	151 133	D	101 231	1	3
		2002.. 248 038	2 478 865	154 335	D	93 703	X	X
333	Machinery manufacturing .....	2003.. 1 964 766	24 023 025	1 454 768	168 092	509 998	1	1
		2002.. 1 939 638	24 310 500	1 456 133	425 399	483 505	X	X
3331	Agriculture, construction, and mining machinery manufacturing .....	2003.. 352 717	4 061 981	215 427	152 825	137 290	1	1
		2002.. 327 477	4 050 113	210 463	100 195	117 014	X	X
33311	Agricultural implement manufacturing .....	2003.. 146 463	1 625 011	87 002	D	59 461	2	2
		2002.. 128 988	1 521 102	78 586	D	50 402	X	X
333111	Farm machinery and equipment manufacturing .....	2003.. 107 991	1 190 905	62 574	D	45 418	2	2
		2002.. 93 881	1 081 930	55 143	D	38 738	X	X
333112	Lawn and garden tractor and home lawn and garden equipment manufacturing .....	2003.. 38 471	434 105	24 428	-	14 043	1	2
		2002.. 35 107	439 172	23 443	-	11 664	X	X
33312	Construction machinery manufacturing .....	2003.. 135 008	1 518 041	74 455	D	60 554	2	1
		2002.. 127 596	1 550 964	76 184	D	51 412	X	X
333120	Construction machinery manufacturing .....	2003.. 135 008	1 518 041	74 455	D	60 554	2	1
		2002.. 127 596	1 550 964	76 184	D	51 412	X	X
33313	Mining and oil and gas field machinery manufacturing .....	2003.. 71 246	918 929	53 971	-	17 275	5	4
		2002.. 70 893	978 047	55 693	D	15 200	X	X
33313M	Mining and oil and gas field machinery manufacturing .....	2003.. 71 246	918 929	53 971	-	17 275	5	4
		2002.. 70 893	978 047	55 693	D	15 200	X	X
3332	Industrial machinery manufacturing .....	2003.. 223 327	2 561 960	176 444	-1 116	46 883	4	3
		2002.. 224 211	2 601 611	180 258	4 325	43 953	X	X
33321	Sawmill and woodworking machinery manufacturing .....	2003.. 9 863	117 454	7 145	-	2 719	3	7
		2002.. 8 780	112 266	6 747	-	2 033	X	X
333210	Sawmill and woodworking machinery manufacturing .....	2003.. 9 863	117 454	7 145	-	2 719	3	7
		2002.. 8 780	112 266	6 747	-	2 033	X	X
33322	Plastics and rubber industry machinery manufacturing .....	2003.. 23 104	288 695	17 781	-133	5 323	3	2
		2002.. 24 164	295 831	18 909	D	5 255	X	X
333220	Plastics and rubber industry machinery manufacturing .....	2003.. 23 104	288 695	17 781	-133	5 323	3	2
		2002.. 24 164	295 831	18 909	D	5 255	X	X
33329	Other industrial machinery manufacturing .....	2003.. 190 359	2 155 811	151 518	-983	38 841	5	4
		2002.. 191 267	2 193 514	154 602	D	36 665	X	X
333295	Semiconductor machinery manufacturing .....	2003.. 67 716	824 802	60 273	-	7 443	1	7
		2002.. 63 192	749 147	56 793	D	6 399	X	X
33329N	Other machinery manufacturing .....	2003.. 122 644	1 331 009	91 245	-983	31 398	9	4
		2002.. 128 075	1 444 367	97 809	D	30 266	X	X
3333	Commercial and service industry machinery manufacturing .....	2003.. 147 784	1 625 172	120 297	-	27 488	1	2
		2002.. 134 734	1 453 345	111 209	1 276	23 525	X	X
33331	Commercial and service industry machinery manufacturing .....	2003.. 147 784	1 625 172	120 297	-	27 488	1	2
		2002.. 134 734	1 453 345	111 209	1 276	23 525	X	X
333313	Office machinery manufacturing .....	2003.. 13 580	166 837	11 369	-	2 211	2	3
		2002.. 7 678	92 393	5 888	-	1 790	X	X
333314	Optical instrument and lens manufacturing .....	2003.. 34 253	382 380	31 606	-	2 647	2	6
		2002.. 33 490	361 436	31 151	D	2 339	X	X
333315	Photographic and photocopying equipment manufacturing .....	2003.. 22 638	225 202	19 253	-	3 385	2	7
		2002.. 22 250	238 177	19 247	D	3 003	X	X
33331N	All other commercial and service industry machinery manufacturing .....	2003.. 77 313	850 753	58 068	-	19 245	2	2
		2002.. 71 316	761 339	54 923	D	16 393	X	X
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	2003.. 220 567	2 798 885	161 861	28 229	58 706	1	2
		2002.. 225 698	2 929 743	167 631	14 449	58 067	X	X

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			Purchased				E	C	E
			Quantity (1,000 kWh)	Cost (\$1,000)					
		A	B	C	D				
333	Machinery manufacturing—Con.								
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing—Con.								
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing . . . . .	2003.. 220 567	2 798 885	161 861	28 229	58 706	1	2	
		2002.. 225 698	2 929 743	167 631	14 449	58 067	X	X	
333414	Heating equipment (except warm air furnaces) manufacturing . . . . .	2003.. 31 194	314 632	21 621	—	9 572	2	12	
		2002.. 34 697	344 906	23 073	—	11 624	X	X	
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing . . . . .	2003.. 153 996	2 058 869	114 375	D	39 622	1	1	
		2002.. 154 351	2 168 472	118 547	4 776	35 804	X	X	
33341N	Ventilation equipment manufacturing . . . . .	2003.. 35 377	425 384	25 865	D	9 512	3	6	
		2002.. 36 650	416 365	26 011	9 673	10 639	X	X	
3335	Metalworking machinery manufacturing . . . . .	2003.. 304 651	3 822 930	248 356	63	56 295	2	5	
		2002.. 307 412	3 879 367	254 352	D	53 060	X	X	
33351	Metalworking machinery manufacturing . . . . .	2003.. 304 651	3 822 930	248 356	63	56 295	2	5	
		2002.. 307 412	3 879 367	254 352	D	53 060	X	X	
333511	Industrial mold manufacturing . . . . .	2003.. 83 794	1 042 088	69 107	—	14 687	2	10	
		2002.. 84 830	1 072 246	71 130	713	13 700	X	X	
333512	Machine tool (metal cutting types) manufacturing . . . . .	2003.. 28 990	371 911	23 094	D	5 896	2	7	
		2002.. 29 601	379 370	24 331	D	5 270	X	X	
333513	Machine tool (metal forming types) manufacturing . . . . .	2003.. 10 449	122 109	7 783	D	2 666	3	13	
		2002.. 10 327	112 111	7 317	—	3 010	X	X	
333514	Special die and tool, die set, jig, and fixture manufacturing . . . . .	2003.. 85 169	1 044 024	69 876	—	15 293	8	16	
		2002.. 84 044	1 059 208	69 563	D	14 481	X	X	
333515	Cutting tool and machine tool accessory manufacturing . . . . .	2003.. 67 823	931 970	58 191	—	9 632	2	2	
		2002.. 71 133	947 259	61 742	D	9 391	X	X	
333516	Rolling mill machinery and equipment manufacturing . . . . .	2003.. 8 570	79 713	5 051	—	3 519	2	5	
		2002.. 8 184	77 380	5 389	—	2 795	X	X	
333518	Other metalworking machinery manufacturing . . . . .	2003.. 19 855	231 115	15 254	—	4 601	2	2	
		2002.. 19 293	231 793	14 880	D	4 413	X	X	
3336	Engine, turbine, and power transmission equipment manufacturing . . . . .	2003.. 262 355	3 486 098	184 942	D	77 413	1	2	
		2002.. 251 877	3 732 775	185 492	26 403	66 385	X	X	
33361	Engine, turbine, and power transmission equipment manufacturing . . . . .	2003.. 262 355	3 486 098	184 942	D	77 413	1	2	
		2002.. 251 877	3 732 775	185 492	26 403	66 385	X	X	
333611	Turbine and turbine generator set unit manufacturing . . . . .	2003.. 43 444	520 257	33 735	—	9 709	2	3	
		2002.. 41 924	522 585	31 260	—	10 664	X	X	
333612	Speed changer, industrial high-speed drive, and gear manufacturing . . . . .	2003.. 29 572	351 479	19 593	—	9 979	1	1	
		2002.. 31 032	390 530	20 634	—	10 398	X	X	
333613	Mechanical power transmission equipment manufacturing . . . . .	2003.. 45 609	571 710	32 634	—	12 974	1	2	
		2002.. 43 617	622 668	33 136	—	10 481	X	X	
333618	Other engine equipment manufacturing . . . . .	2003.. 143 730	2 042 651	98 980	D	44 751	2	3	
		2002.. 135 304	2 196 992	100 462	26 403	34 842	X	X	
3339	Other general purpose machinery manufacturing . . . . .	2003.. 453 365	5 666 000	347 441	-23 407	105 924	1	2	
		2002.. 468 229	5 663 546	346 728	D	121 501	X	X	
33391	Pump and compressor manufacturing . . . . .	2003.. 103 633	1 245 725	80 478	D	23 154	6	3	
		2002.. 104 998	1 364 105	82 802	—	22 196	X	X	
333911	Pump and pumping equipment manufacturing . . . . .	2003.. 59 218	720 737	46 426	D	12 792	2	4	
		2002.. 63 580	858 900	51 108	—	12 472	X	X	
333912	Air and gas compressor manufacturing . . . . .	2003.. 37 945	434 201	28 552	—	9 393	16	1	
		2002.. 35 570	423 934	26 720	—	8 850	X	X	
333913	Measuring and dispensing pump manufacturing . . . . .	2003.. 6 470	90 787	5 501	—	969	1	1	
		2002.. 5 848	81 271	4 974	—	874	X	X	
33392	Material handling equipment manufacturing . . . . .	2003.. 104 733	1 162 046	72 586	D	32 147	1	2	
		2002.. 115 596	1 070 357	67 010	D	48 586	X	X	
33392M	Material handling equipment manufacturing . . . . .	2003.. 104 733	1 162 046	72 586	D	32 147	1	2	
		2002.. 115 596	1 070 357	67 010	D	48 586	X	X	
33399	All other general purpose machinery manufacturing . . . . .	2003.. 245 000	3 258 228	194 377	-30 301	50 623	1	3	
		2002.. 247 635	3 229 084	196 916	D	50 719	X	X	
333991	Power-driven hand tool manufacturing . . . . .	2003.. 18 839	306 975	16 048	—	2 791	1	1	
		2002.. 21 204	344 197	18 300	—	2 904	X	X	
333993	Packaging machinery manufacturing . . . . .	2003.. 23 459	294 918	19 564	D	3 896	2	19	
		2002.. 23 959	292 655	19 380	—	4 579	X	X	
333994	Industrial process furnace and oven manufacturing . . . . .	2003.. 13 403	161 799	11 121	D	2 282	6	39	
		2002.. 15 402	174 597	11 740	—	3 662	X	X	
33399N	Fluid power equipment manufacturing . . . . .	2003.. 64 919	951 955	53 598	—	11 321	1	1	
		2002.. 61 172	866 829	51 570	D	9 602	X	X	
33399P	All other miscellaneous general purpose machinery manufacturing . . . . .	2003.. 124 380	1 542 582	94 046	D	30 333	1	3	
		2002.. 125 898	1 550 806	95 926	D	29 972	X	X	
334	Computer and electronic product manufacturing . . . . .	2003.. 2 428 789	33 482 343	2 062 402	-34 812	366 387	1	2	
		2002.. 2 462 615	32 823 696	2 047 776	-10 949	414 839	X	X	
3341	Computer and peripheral equipment manufacturing . . . . .	2003.. 194 726	2 553 507	162 286	D	32 440	2	1	
		2002.. 213 730	2 719 979	168 756	443	44 974	X	X	
33411	Computer and peripheral equipment manufacturing . . . . .	2003.. 194 726	2 553 507	162 286	D	32 440	2	1	
		2002.. 213 730	2 719 979	168 756	443	44 974	X	X	
334111	Electronic computer manufacturing . . . . .	2003.. 49 843	677 384	45 159	D	4 685	1	1	
		2002.. 61 014	701 084	43 251	D	17 763	X	X	
334112	Computer storage device manufacturing . . . . .	2003.. 66 788	837 129	59 283	D	7 506	2	2	
		2002.. 66 643	893 180	62 490	D	4 153	X	X	
334113	Computer terminal manufacturing . . . . .	2003.. 3 618	46 587	3 113	—	505	3	1	
		2002.. 4 202	56 413	3 653	—	549	X	X	
334119	Other computer peripheral equipment manufacturing . . . . .	2003.. 74 476	992 407	54 731	—	19 745	6	1	
		2002.. 81 871	1 069 302	59 362	—	22 509	X	X	

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			Purchased				E	C	E
			Quantity (1,000 kWh)	Cost (\$1,000)					
		A	B	C	D				
334	Computer and electronic product manufacturing—Con.								
3342	Communications equipment manufacturing	2003.. 264 524	2 681 929	197 315	—	67 210	3	1	
		2002.. 257 115	2 312 714	172 198	D	84 917	X	X	
33421	Telephone apparatus manufacturing	2003.. 112 551	1 009 805	68 473	—	44 078	4	1	
		2002.. 105 941	646 110	45 426	D	60 515	X	X	
334210	Telephone apparatus manufacturing	2003.. 112 551	1 009 805	68 473	—	44 078	4	1	
		2002.. 105 941	646 110	45 426	D	60 515	X	X	
33422	Radio and television broadcasting and wireless communications equipment manufacturing	2003.. D	1 387 269	104 385	—	D	5	S	
		2002.. 114 845	1 384 300	99 656	D	15 189	X	X	
334220	Radio and television broadcasting and wireless communications equipment manufacturing	2003.. D	1 387 269	104 385	—	D	5	S	
		2002.. 114 845	1 384 300	99 656	D	15 189	X	X	
33429	Other communications equipment manufacturing	2003.. D	284 855	24 457	—	D	9	S	
		2002.. 36 329	282 304	27 116	D	9 213	X	X	
334290	Other communications equipment manufacturing	2003.. D	284 855	24 457	—	D	9	S	
		2002.. 36 329	282 304	27 116	D	9 213	X	X	
3343	Audio and video equipment manufacturing	2003.. 33 328	557 244	28 025	D	5 303	2	3	
		2002.. 34 349	567 126	29 031	D	5 318	X	X	
33431	Audio and video equipment manufacturing	2003.. 33 328	557 244	28 025	D	5 303	2	3	
		2002.. 34 349	567 126	29 031	D	5 318	X	X	
334310	Audio and video equipment manufacturing	2003.. 33 328	557 244	28 025	D	5 303	2	3	
		2002.. 34 349	567 126	29 031	D	5 318	X	X	
3344	Semiconductor and other electronic component manufacturing	2003.. 1 263 214	18 875 253	1 097 463	D	165 752	1	3	
		2002.. 1 307 295	19 168 285	1 130 446	D	176 849	X	X	
33441	Semiconductor and other electronic component manufacturing	2003.. 1 263 214	18 875 253	1 097 463	D	165 752	1	3	
		2002.. 1 307 295	19 168 285	1 130 446	D	176 849	X	X	
334411	Electron tube manufacturing	2003.. 46 141	580 234	32 396	—	13 745	1	1	
		2002.. 51 377	740 200	37 016	—	14 361	X	X	
334412	Bare printed circuit board manufacturing	2003.. 108 062	1 240 809	87 164	—	20 898	2	1	
		2002.. 124 023	1 381 183	100 538	—	23 485	X	X	
334413	Semiconductor and related device manufacturing	2003.. 791 912	13 178 263	701 878	D	90 033	1	5	
		2002.. 814 913	13 128 747	713 686	D	101 227	X	X	
334414	Electronic capacitor manufacturing	2003.. 21 690	336 165	18 692	—	2 998	4	2	
		2002.. 28 890	425 387	25 054	—	3 836	X	X	
334415	Electronic resistor manufacturing	2003.. 12 268	169 818	10 854	—	1 414	3	4	
		2002.. 10 880	146 650	9 619	—	1 261	X	X	
334416	Electronic coil, transformer, and other inductor manufacturing	2003.. 10 325	113 260	8 273	—	2 052	3	3	
		2002.. 9 049	102 677	7 211	—	1 838	X	X	
334417	Electronic connector manufacturing	2003.. 40 931	474 001	34 602	—	6 328	3	1	
		2002.. 42 449	469 079	37 097	—	5 352	X	X	
334418	Printed circuit assembly (electronic assembly) manufacturing	2003.. 144 058	1 768 283	128 263	—	15 795	3	4	
		2002.. 130 656	1 644 149	116 839	—	13 817	X	X	
334419	Other electronic component manufacturing	2003.. 87 827	1 014 420	75 340	—	12 487	2	9	
		2002.. 95 058	1 130 213	83 386	—	11 672	X	X	
3345	Navigational, measuring, electromedical, and control instruments manufacturing	2003.. 578 879	7 576 369	498 682	-13 187	80 197	1	1	
		2002.. 551 595	6 826 216	465 527	3 719	86 068	X	X	
33451	Navigational, measuring, medical, and control instruments manufacturing	2003.. 578 879	7 576 369	498 682	-13 187	80 197	1	1	
		2002.. 551 595	6 826 216	465 527	3 719	86 068	X	X	
334510	Electromedical and electrotherapeutic apparatus manufacturing	2003.. 57 889	810 407	50 944	—	6 944	1	1	
		2002.. 55 994	753 054	46 825	D	9 169	X	X	
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing	2003.. 251 161	3 384 461	216 218	D	34 943	1	1	
		2002.. 256 281	3 157 375	215 771	-4 247	40 510	X	X	
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use	2003.. 20 736	278 506	17 267	—	3 469	3	3	
		2002.. 22 016	300 915	18 321	D	3 695	X	X	
334513	Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables	2003.. 46 866	556 824	39 070	—	7 796	1	2	
		2002.. 45 140	551 547	38 309	D	6 831	X	X	
334514	Totalizing fluid meter and counting device manufacturing	2003.. 20 806	306 416	15 175	—	5 631	1	1	
		2002.. 22 236	320 785	17 153	—	5 083	X	X	
334515	Instrument manufacturing for measuring and testing electricity and electrical signals	2003.. 76 312	999 632	70 919	D	5 393	3	6	
		2002.. 60 062	711 950	54 358	D	5 704	X	X	
334516	Analytical laboratory instrument manufacturing	2003.. 48 030	547 226	40 463	—	7 567	6	3	
		2002.. 35 229	360 446	27 714	—	7 515	X	X	
334517	Irradiation apparatus manufacturing	2003.. 17 748	200 905	14 782	—	2 966	3	2	
		2002.. 14 982	169 346	12 817	—	2 165	X	X	
334518	Watch, clock, and parts manufacturing	2003.. 3 770	46 933	3 178	—	593	8	21	
		2002.. 4 235	51 560	3 461	—	774	X	X	
334519	Other measuring and controlling device manufacturing	2003.. 35 561	445 060	30 666	19	4 895	3	2	
		2002.. 35 420	449 238	30 798	D	4 622	X	X	
3346	Manufacturing and reproducing magnetic and optical media	2003.. 94 118	1 238 042	78 632	—	15 486	1	14	
		2002.. 98 531	1 229 376	81 818	D	16 713	X	X	
33461	Manufacturing and reproducing magnetic and optical media	2003.. 94 118	1 238 042	78 632	—	15 486	1	14	
		2002.. 98 531	1 229 376	81 818	D	16 713	X	X	
334611	Software reproducing	2003.. 7 579	79 285	5 581	—	1 998	5	10	
		2002.. 6 481	71 275	5 169	—	1 312	X	X	
334612	Prerecorded compact disc (except software), tape, and record reproducing	2003.. 57 681	788 222	52 072	—	5 610	2	39	
		2002.. 62 694	836 762	55 274	—	7 420	X	X	
334613	Magnetic and optical recording media manufacturing	2003.. 28 858	370 535	20 980	—	7 878	3	1	
		2002.. 29 356	321 339	21 375	D	7 981	X	X	

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			Purchased		Generated less sold (1,000 kWh)		C	E	
			Quantity (1,000 kWh)	Cost (\$1,000)					
		A	B	C	D				
335	Electrical equipment, appliance, and component manufacturing .....	2003..	1 027 247	13 604 078	753 269	7 964	273 978	1	1
		2002..	1 013 203	13 926 040	758 298	-6 734	254 905	X	X
3351	Electric lighting equipment manufacturing .....	2003..	111 838	1 306 487	81 505	-	30 333	1	3
		2002..	111 888	1 328 148	81 080	D	30 808	X	X
33511	Electric lamp bulb and parts manufacturing .....	2003..	43 505	594 070	31 760	-	11 745	1	4
		2002..	41 267	600 083	30 667	-	10 600	X	X
335110	Electric lamp bulb and parts manufacturing .....	2003..	43 505	594 070	31 760	-	11 745	1	4
		2002..	41 267	600 083	30 667	-	10 600	X	X
33512	Lighting fixture manufacturing .....	2003..	68 333	712 417	49 745	-	18 588	2	4
		2002..	70 621	728 065	50 413	D	20 208	X	X
33512M	Lighting fixture manufacturing .....	2003..	68 333	712 417	49 745	-	18 588	2	4
		2002..	70 621	728 065	50 413	D	20 208	X	X
3352	Household appliance manufacturing .....	2003..	170 432	2 339 530	108 761	D	61 671	1	1
		2002..	155 711	2 313 706	106 145	D	49 566	X	X
33521	Small electrical appliance manufacturing .....	2003..	28 448	439 122	21 900	-	6 547	2	1
		2002..	30 285	455 805	23 846	-	6 439	X	X
33521M	Small electrical appliance manufacturing .....	2003..	28 448	439 122	21 900	-	6 547	2	1
		2002..	30 285	455 805	23 846	-	6 439	X	X
33522	Major appliance manufacturing .....	2003..	141 984	1 900 409	86 860	D	55 124	1	1
		2002..	125 426	1 857 901	82 299	D	43 127	X	X
335221	Household cooking appliance manufacturing .....	2003..	34 313	358 972	18 590	-	15 723	2	2
		2002..	33 795	380 672	19 948	D	13 847	X	X
335222	Household refrigerator and home freezer manufacturing .....	2003..	39 153	673 333	30 007	-	9 146	1	1
		2002..	35 927	664 578	27 762	-	8 165	X	X
335224	Household laundry equipment manufacturing .....	2003..	37 355	483 288	19 757	-	17 598	1	1
		2002..	30 948	471 836	18 938	-	12 010	X	X
335228	Other major household appliance manufacturing .....	2003..	31 163	384 816	18 506	D	12 657	5	3
		2002..	24 756	340 815	15 651	D	9 105	X	X
3353	Electrical equipment manufacturing .....	2003..	236 215	3 022 219	173 930	284	62 285	1	3
		2002..	233 475	3 039 943	173 491	135	59 984	X	X
33531	Electrical equipment manufacturing .....	2003..	236 215	3 022 219	173 930	284	62 285	1	3
		2002..	233 475	3 039 943	173 491	135	59 984	X	X
335311	Power, distribution, and specialty transformer manufacturing .....	2003..	46 068	568 339	32 077	-	13 991	2	2
		2002..	44 147	570 160	32 676	-	11 471	X	X
335312	Motor and generator manufacturing .....	2003..	91 459	1 214 813	65 256	D	26 203	1	6
		2002..	94 395	1 245 301	64 792	D	29 603	X	X
335313	Switchgear and switchboard apparatus manufacturing .....	2003..	57 243	710 446	42 809	-	14 434	5	2
		2002..	53 295	689 579	41 200	-78	12 095	X	X
335314	Relay and industrial control manufacturing .....	2003..	41 445	528 621	33 789	D	7 656	1	2
		2002..	41 638	534 903	34 823	D	6 815	X	X
3359	Other electrical equipment and component manufacturing .....	2003..	508 762	6 935 841	389 073	D	119 689	1	2
		2002..	512 129	7 244 243	397 582	D	114 547	X	X
33591	Battery manufacturing .....	2003..	115 177	1 817 687	91 170	-	24 007	2	3
		2002..	116 664	1 902 336	93 951	-	22 713	X	X
335911	Storage battery manufacturing .....	2003..	94 833	1 468 779	73 454	-	21 379	2	3
		2002..	97 141	1 571 740	76 831	-	20 310	X	X
335912	Primary battery manufacturing .....	2003..	20 344	348 908	17 716	-	2 628	2	1
		2002..	19 523	330 596	17 120	-	2 403	X	X
33592	Communication and energy wire and cable manufacturing .....	2003..	140 942	1 934 806	112 763	D	28 180	2	1
		2002..	146 167	2 196 494	114 088	D	32 079	X	X
33592M	Communication and energy wire and cable manufacturing .....	2003..	140 942	1 934 806	112 763	D	28 180	2	1
		2002..	146 167	2 196 494	114 088	D	32 079	X	X
33593	Wiring device manufacturing .....	2003..	120 003	1 534 465	97 963	-	22 040	1	2
		2002..	121 889	1 589 674	101 786	D	20 103	X	X
33593M	Wiring device manufacturing .....	2003..	120 003	1 534 465	97 963	-	22 040	1	2
		2002..	121 889	1 589 674	101 786	D	20 103	X	X
33599	All other electrical equipment and component manufacturing .....	2003..	132 639	1 648 883	87 177	-	45 462	2	5
		2002..	127 409	1 555 739	87 757	-	39 652	X	X
335991	Carbon and graphite product manufacturing .....	2003..	93 046	1 197 295	53 578	-	39 467	2	6
		2002..	86 544	1 110 611	52 687	-	33 857	X	X
335999	All other miscellaneous electrical equipment and component manufacturing .....	2003..	39 593	451 588	33 599	-	5 994	4	5
		2002..	40 865	445 128	35 070	-	5 795	X	X
336	Transportation equipment manufacturing .....	2003..	3 901 772	51 512 851	2 656 451	171 352	1 245 321	1	1
		2002..	3 843 907	53 487 933	2 757 729	-42 401	1 086 178	X	X
3361	Motor vehicle manufacturing .....	2003..	854 925	10 278 206	448 424	-88 055	406 501	1	1
		2002..	765 411	10 659 315	458 994	D	306 417	X	X
33611	Automobile and light duty motor vehicle manufacturing .....	2003..	802 457	9 700 477	415 268	-88 055	387 190	1	1
		2002..	715 353	10 025 066	425 703	D	289 650	X	X
336111	Automobile manufacturing .....	2003..	329 404	3 981 032	181 694	D	147 711	1	1
		2002..	301 040	4 135 048	176 605	D	124 435	X	X
336112	Light truck and utility vehicle manufacturing .....	2003..	473 053	5 719 445	233 574	D	239 479	1	1
		2002..	414 313	5 890 018	249 098	D	165 215	X	X
33612	Heavy duty truck manufacturing .....	2003..	52 467	577 730	33 156	-	19 311	1	3
		2002..	50 058	634 249	33 291	-	16 767	X	X
336120	Heavy duty truck manufacturing .....	2003..	52 467	577 730	33 156	-	19 311	1	3
		2002..	50 058	634 249	33 291	-	16 767	X	X

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			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
336	Transportation equipment manufacturing—Con.							
3362	Motor vehicle body and trailer manufacturing .....	2003.. 134 230	1 468 192	87 890	—	46 341	2	2
		2002.. 126 987	1 404 117	85 122	-1 911	41 865	X	X
33621	Motor vehicle body and trailer manufacturing .....	2003.. 134 230	1 468 192	87 890	—	46 341	2	2
		2002.. 126 987	1 404 117	85 122	-1 911	41 865	X	X
336211	Motor vehicle body manufacturing .....	2003.. 46 819	517 812	31 233	—	15 587	3	4
		2002.. 50 079	575 124	33 879	D	16 200	X	X
336212	Truck trailer manufacturing .....	2003.. 30 430	387 377	21 105	—	9 325	4	4
		2002.. 26 455	328 141	19 282	D	7 173	X	X
336213	Motor home manufacturing .....	2003.. 18 474	187 597	11 671	—	6 803	1	3
		2002.. 15 425	168 530	10 537	—	4 888	X	X
336214	Travel trailer and camper manufacturing .....	2003.. 38 507	375 405	23 881	—	14 626	3	3
		2002.. 35 028	332 322	21 424	D	13 604	X	X
3363	Motor vehicle parts manufacturing .....	2003.. 1 867 797	26 498 488	1 322 967	-113 613	544 830	1	1
		2002.. 1 829 791	27 951 302	1 369 964	-104 199	459 827	X	X
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	2003.. 297 779	4 593 581	218 497	D	79 282	1	1
		2002.. 292 776	4 798 080	226 508	-27 434	66 268	X	X
33631M	Motor vehicle gasoline engine and engine parts manufacturing .....	2003.. 297 779	4 593 581	218 497	D	79 282	1	1
		2002.. 292 776	4 798 080	226 508	-27 434	66 268	X	X
33632	Motor vehicle electrical and electronic equipment manufacturing .....	2003.. 180 410	2 750 964	138 131	—	42 279	1	2
		2002.. 185 181	2 767 013	147 193	D	37 988	X	X
33632M	Motor vehicle electrical and electronic equipment manufacturing .....	2003.. 180 410	2 750 964	138 131	—	42 279	1	2
		2002.. 185 181	2 767 013	147 193	D	37 988	X	X
33633	Motor vehicle steering and suspension component (except spring) manufacturing .....	2003.. 121 753	1 840 692	85 913	—	35 840	1	1
		2002.. 110 367	1 843 889	84 783	—	25 584	X	X
336330	Motor vehicle steering and suspension component (except spring) manufacturing .....	2003.. 121 753	1 840 692	85 913	—	35 840	1	1
		2002.. 110 367	1 843 889	84 783	—	25 584	X	X
33634	Motor vehicle brake system manufacturing .....	2003.. 113 115	1 777 500	89 116	D	23 999	1	1
		2002.. 107 605	1 738 337	85 594	D	22 011	X	X
336340	Motor vehicle brake system manufacturing .....	2003.. 113 115	1 777 500	89 116	D	23 999	1	1
		2002.. 107 605	1 738 337	85 594	D	22 011	X	X
33635	Motor vehicle transmission and power train parts manufacturing .....	2003.. 336 989	4 818 310	222 104	D	114 885	2	1
		2002.. 328 761	5 128 816	235 167	-28 621	93 594	X	X
336350	Motor vehicle transmission and power train parts manufacturing .....	2003.. 336 989	4 818 310	222 104	D	114 885	2	1
		2002.. 328 761	5 128 816	235 167	-28 621	93 594	X	X
33636	Motor vehicle seating and interior trim manufacturing .....	2003.. 76 913	1 139 946	61 295	—	15 617	4	2
		2002.. 76 007	1 125 450	61 453	—	14 554	X	X
336360	Motor vehicle seating and interior trim manufacturing .....	2003.. 76 913	1 139 946	61 295	—	15 617	4	2
		2002.. 76 007	1 125 450	61 453	—	14 554	X	X
33637	Motor vehicle metal stamping .....	2003.. 297 813	3 960 308	210 837	-58 375	86 976	2	4
		2002.. 286 666	4 136 499	214 436	D	72 230	X	X
336370	Motor vehicle metal stamping .....	2003.. 297 813	3 960 308	210 837	-58 375	86 976	2	4
		2002.. 286 666	4 136 499	214 436	D	72 230	X	X
33639	Other motor vehicle parts manufacturing .....	2003.. 443 027	5 617 186	297 074	D	145 953	1	4
		2002.. 442 428	6 413 218	314 830	D	127 598	X	X
336391	Motor vehicle air-conditioning manufacturing .....	2003.. 45 568	751 592	31 464	—	14 103	1	2
		2002.. 71 565	1 704 071	61 277	—	10 288	X	X
336399	All other miscellaneous motor vehicle parts manufacturing .....	2003.. 397 460	4 865 594	265 610	D	131 850	1	4
		2002.. 370 863	4 709 147	253 553	D	117 310	X	X
3364	Aerospace product and parts manufacturing .....	2003.. 781 455	9 947 918	606 194	248 081	175 261	1	1
		2002.. 860 533	10 313 995	655 881	157 270	204 652	X	X
33641	Aerospace product and parts manufacturing .....	2003.. 781 455	9 947 918	606 194	248 081	175 261	1	1
		2002.. 860 533	10 313 995	655 881	157 270	204 652	X	X
336411	Aircraft manufacturing .....	2003.. 186 033	2 562 090	142 313	D	43 720	1	1
		2002.. 241 302	3 196 094	191 913	D	49 389	X	X
336412	Aircraft engine and engine parts manufacturing .....	2003.. 184 124	2 157 871	132 269	D	243 954	1	1
		2002.. 183 827	2 179 538	130 680	246 058	53 147	X	X
336413	Other aircraft parts and auxiliary equipment manufacturing .....	2003.. 271 646	3 564 260	220 399	D	51 247	1	4
		2002.. 291 686	3 222 164	218 194	15 790	73 492	X	X
336414	Guided missile and space vehicle manufacturing .....	2003.. 77 882	834 083	63 082	—	14 800	1	1
		2002.. 78 282	799 689	63 694	—	14 588	X	X
336415	Guided missile and space vehicle propulsion unit and propulsion unit parts manufacturing .....	2003.. 41 847	539 394	32 450	D	9 397	1	1
		2002.. 43 847	605 267	35 035	D	8 812	X	X
336419	Other guided missile and space vehicle parts and auxiliary equipment manufacturing .....	2003.. 19 923	290 220	15 680	—	4 243	1	1
		2002.. 21 589	311 243	16 365	—	5 224	X	X
3365	Railroad rolling stock manufacturing .....	2003.. 46 739	438 591	27 431	D	19 308	1	2
		2002.. 44 535	399 952	26 994	D	17 541	X	X
33651	Railroad rolling stock manufacturing .....	2003.. 46 739	438 591	27 431	D	19 308	1	2
		2002.. 44 535	399 952	26 994	D	17 541	X	X
336510	Railroad rolling stock manufacturing .....	2003.. 46 739	438 591	27 431	D	19 308	1	2
		2002.. 44 535	399 952	26 994	D	17 541	X	X
3366	Ship and boat building .....	2003.. 158 401	2 122 829	121 012	D	37 389	1	2
		2002.. 151 162	1 965 823	117 957	-2 065	33 205	X	X
33661	Ship and boat building .....	2003.. 158 401	2 122 829	121 012	D	37 389	1	2
		2002.. 151 162	1 965 823	117 957	-2 065	33 205	X	X
336611	Ship building and repairing .....	2003.. 109 063	1 617 477	87 880	—	21 182	1	1
		2002.. 103 375	1 486 477	85 438	D	17 937	X	X
336612	Boat building .....	2003.. 49 338	505 352	33 132	D	16 206	3	5
		2002.. 47 787	479 346	32 519	D	15 268	X	X

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			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
336	Transportation equipment manufacturing—Con.							
3369	Other transportation equipment manufacturing .....	2003.. 58 225	758 626	42 534	D	15 692	4	48
		2002.. 65 488	793 429	42 817	D	22 671	X	X
33699	Other transportation equipment manufacturing .....	2003.. 58 225	758 626	42 534	D	15 692	4	48
		2002.. 65 488	793 429	42 817	D	22 671	X	X
336991	Motorcycle, bicycle, and parts manufacturing .....	2003.. 21 450	343 877	18 344	—	A	9	A
		2002.. 26 687	319 536	17 434	D	9 253	X	X
336992	Military armored vehicle, tank, and tank component manufacturing .....	2003.. 9 660	113 840	7 716	—	1 944	1	1
		2002.. 11 656	158 862	9 436	D	2 220	X	X
336999	All other transportation equipment manufacturing .....	2003.. 27 116	300 909	16 474	D	10 642	2	2
		2002.. 27 145	315 031	15 947	D	11 198	X	X
337	Furniture and related product manufacturing .....	2003.. 693 161	8 050 709	506 583	43 875	186 578	1	2
		2002.. 683 932	7 929 728	508 396	4 647	175 536	X	X
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	2003.. 397 616	4 860 320	303 940	41 020	93 676	1	4
		2002.. 413 061	5 030 107	318 856	8 910	94 205	X	X
33711	Wood kitchen cabinet and counter top manufacturing .....	2003.. 130 329	1 461 342	95 251	D	35 078	2	6
		2002.. 124 029	1 416 584	90 650	D	33 379	X	X
337110	Wood kitchen cabinet and counter top manufacturing .....	2003.. 130 329	1 461 342	95 251	D	35 078	2	6
		2002.. 124 029	1 416 584	90 650	D	33 379	X	X
33712	Household and institutional furniture manufacturing .....	2003.. 267 287	3 398 978	208 689	D	58 598	2	5
		2002.. 289 032	3 613 523	228 206	6 203	60 826	X	X
337121	Upholstered household furniture manufacturing .....	2003.. 60 835	763 475	48 563	D	12 273	6	5
		2002.. 59 316	737 217	48 081	D	11 235	X	X
337122	Nonupholstered wood household furniture manufacturing .....	2003.. 134 928	1 860 400	109 286	D	25 642	1	5
		2002.. 151 951	2 034 388	124 322	D	27 629	X	X
337127	Institutional furniture manufacturing .....	2003.. 40 148	417 398	27 454	—	12 694	9	8
		2002.. 42 445	451 957	30 636	D	11 809	X	X
33712N	Other household nonupholstered furniture .....	2003.. 31 376	357 705	23 386	—	7 990	5	31
		2002.. 35 320	389 961	25 167	D	10 153	X	X
3372	Office furniture (including fixtures) manufacturing .....	2003.. 257 703	2 751 384	172 721	2 571	84 982	2	3
		2002.. 233 755	2 497 065	160 751	D	73 004	X	X
33721	Office furniture (including fixtures) manufacturing .....	2003.. 257 703	2 751 384	172 721	2 571	84 982	2	3
		2002.. 233 755	2 497 065	160 751	D	73 004	X	X
337212	Custom architectural woodwork and millwork manufacturing .....	2003.. 37 471	365 741	27 525	—	9 946	5	4
		2002.. 34 949	361 168	25 472	256	9 477	X	X
337215	Showcase, partition, shelving, and locker manufacturing .....	2003.. 112 926	1 124 888	74 126	D	38 801	4	5
		2002.. 109 858	1 117 949	74 155	D	35 703	X	X
33721N	Office furniture manufacturing .....	2003.. 107 305	1 260 754	71 070	D	36 235	1	2
		2002.. 88 948	1 017 948	61 124	D	27 824	X	X
3379	Other furniture related product manufacturing .....	2003.. 37 841	439 006	29 922	284	7 919	3	10
		2002.. 37 116	402 556	28 789	D	8 327	X	X
33791	Mattress manufacturing .....	2003.. 19 365	209 564	14 878	284	4 487	2	18
		2002.. 21 249	212 637	15 573	D	5 676	X	X
337910	Mattress manufacturing .....	2003.. 19 365	209 564	14 878	284	4 487	2	18
		2002.. 21 249	212 637	15 573	D	5 676	X	X
33792	Blind and shade manufacturing .....	2003.. 18 477	229 442	15 045	—	3 432	6	1
		2002.. 15 867	189 919	13 216	—	2 651	X	X
337920	Blind and shade manufacturing .....	2003.. 18 477	229 442	15 045	—	3 432	6	1
		2002.. 15 867	189 919	13 216	—	2 651	X	X
339	Miscellaneous manufacturing .....	2003.. 906 971	10 484 316	691 316	4 324	215 655	1	1
		2002.. 874 562	10 276 767	678 426	2 800	196 136	X	X
3391	Medical equipment and supplies manufacturing .....	2003.. 357 188	4 469 180	294 827	5 461	62 361	3	3
		2002.. 353 305	4 497 904	296 284	2 362	57 021	X	X
33911	Medical equipment and supplies manufacturing .....	2003.. 357 188	4 469 180	294 827	5 461	62 361	3	3
		2002.. 353 305	4 497 904	296 284	2 362	57 021	X	X
339111	Laboratory apparatus and furniture manufacturing .....	2003.. 27 466	278 345	18 202	—	9 264	6	13
		2002.. 24 756	267 378	18 624	D	6 132	X	X
339112	Surgical and medical instrument manufacturing .....	2003.. 125 500	1 632 630	107 998	D	17 502	4	2
		2002.. 121 822	1 657 819	106 375	D	15 447	X	X
339113	Surgical appliance and supplies manufacturing .....	2003.. 137 220	1 691 625	108 866	D	28 354	2	3
		2002.. 134 194	1 613 809	106 275	D	27 919	X	X
339114	Dental equipment and supplies manufacturing .....	2003.. 16 587	210 973	14 766	5 790	1 821	8	12
		2002.. 15 969	196 599	14 146	D	1 823	X	X
339115	Ophthalmic goods manufacturing .....	2003.. 32 360	433 873	29 542	—	2 818	22	19
		2002.. 39 751	560 407	36 820	—	2 931	X	X
339116	Dental laboratories .....	2003.. 18 055	221 734	15 453	—	2 602	4	20
		2002.. 16 813	201 892	14 044	—	2 769	X	X
3399	Other miscellaneous manufacturing .....	2003.. 549 783	6 015 136	396 489	-1 137	153 294	1	2
		2002.. 521 257	5 778 863	382 142	438	139 115	X	X
33991	Jewelry and silverware manufacturing .....	2003.. 40 849	381 140	26 930	-85	13 919	3	9
		2002.. 37 062	361 219	25 703	184	11 359	X	X
33991M	Jewelry and silverware manufacturing .....	2003.. 40 849	381 140	26 930	-85	13 919	3	9
		2002.. 37 062	361 219	25 703	184	11 359	X	X
33992	Sporting and athletic goods manufacturing .....	2003.. 89 838	879 619	60 603	-12	29 235	2	3
		2002.. 82 741	886 629	57 854	—	24 887	X	X
339920	Sporting and athletic goods manufacturing .....	2003.. 89 838	879 619	60 603	-12	29 235	2	3
		2002.. 82 741	886 629	57 854	—	24 887	X	X
33993	Doll, toy, and game manufacturing .....	2003.. 34 375	391 250	25 631	—	8 744	6	4
		2002.. 31 237	342 502	23 144	—	8 093	X	X
33993M	Doll, toy, and game manufacturing .....	2003.. 34 375	391 250	25 631	—	8 744	6	4
		2002.. 31 237	342 502	23 144	—	8 093	X	X

See footnotes at end of table.

**Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Groups and Industries: 2003 and 2002—Con.**

[Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate <sup>2</sup> (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
339	Miscellaneous manufacturing—Con.							
3399	Other miscellaneous manufacturing—Con.							
33994	Office supplies (except paper) manufacturing . . . . . 2003..	40 123	453 804	30 807	—	9 316	5	1
	2002..	37 284	437 799	29 005	56	8 279	X	X
33994M	Office supplies (except paper) manufacturing . . . . . 2003..	40 123	453 804	30 807	—	9 316	5	1
	2002..	37 284	437 799	29 005	56	8 279	X	X
33995	Sign manufacturing . . . . . 2003..	81 698	852 545	57 333	-213	24 366	5	4
	2002..	77 124	810 727	55 997	198	21 127	X	X
339950	Sign manufacturing . . . . . 2003..	81 698	852 545	57 333	-213	24 366	5	4
	2002..	77 124	810 727	55 997	198	21 127	X	X
33999	All other miscellaneous manufacturing . . . . . 2003..	262 899	3 056 779	195 185	-827	67 715	1	2
	2002..	255 809	2 939 987	190 439	—	65 370	X	X
339991	Gasket, packing, and sealing device manufacturing . . . . . 2003..	89 773	1 069 672	67 655	D	22 118	1	3
	2002..	87 642	1 035 601	68 299	—	19 343	X	X
339992	Musical instrument manufacturing . . . . . 2003..	17 152	167 152	12 489	—	4 663	1	4
	2002..	17 128	168 767	12 799	—	4 329	X	X
339993	Fastener, button, needle, and pin manufacturing . . . . . 2003..	14 402	205 978	11 324	—	3 078	3	8
	2002..	14 648	216 460	11 514	—	3 134	X	X
339994	Broom, brush, and mop manufacturing . . . . . 2003..	16 540	199 336	12 621	—	3 919	4	7
	2002..	16 097	192 316	12 291	—	3 806	X	X
339995	Burial casket manufacturing . . . . . 2003..	11 078	120 588	8 245	—	2 833	4	4
	2002..	10 946	66 015	4 790	—	6 156	X	X
339999	All other miscellaneous manufacturing . . . . . 2003..	113 955	1 294 052	82 851	D	31 104	2	4
	2002..	109 348	1 260 828	80 746	—	28 602	X	X

<sup>1</sup>For a comparison of the Annual Survey of Manufactures (ASM) general statistics NAICS-based codes to the 2002 Economic Census NAICS codes, see Appendix F.  
<sup>2</sup>Description of relative standard error of estimate is given in Appendix C. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note 1: Previous years' data may differ from that published in the 2002 Economic Census because of changes encountered in subsequent review of the 2003 Annual Survey of Manufactures (ASM).

Note 2: The data in this table are based on the 2003 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The data in this table contain sampling errors and nonsampling errors. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 5. Capital Expenditures for Plant and Equipment by Industry Groups and Industries: 2003 and 2002**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	Total (new and used)	Buildings and other structures	Machinery and equipment				Relative standard error of estimate <sup>2</sup> (percent) for column—
				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures	
<b>31-33</b>	<b>Manufacturing</b>	<b>115 004 095</b> <b>126 012 978</b>	<b>16 311 129</b> <b>22 604 328</b>	<b>98 692 966</b> <b>103 408 650</b>	<b>2 991 635</b> <b>3 404 462</b>	<b>8 102 923</b> <b>7 886 380</b>	<b>87 598 408</b> <b>92 117 808</b>	<b>1</b> <b>X</b>
311	Food manufacturing	12 041 133 11 010 479	2 171 224 2 082 919	9 869 909 8 927 560	324 393 358 762	585 767 529 087	8 959 748 8 039 711	1 X
3111	Animal food manufacturing	522 617 577 973	64 261 107 595	458 356 470 378	26 312 32 308	21 526 28 601	410 518 409 469	1 X
31111	Animal food manufacturing	522 617 577 973	64 261 107 595	458 356 470 378	26 312 32 308	21 526 28 601	410 518 409 469	1 X
311111	Dog and cat food manufacturing	270 453 229 436	27 504 37 990	242 950 191 446	5 313 4 062	8 341 8 126	229 296 179 258	1 X
311119	Other animal food manufacturing	252 164 348 537	36 757 69 605	215 407 278 932	20 999 28 246	13 185 20 475	181 222 230 211	3 X
3112	Grain and oilseed milling	2 465 127 1 042 801	469 689 167 023	1 995 438 875 778	13 026 16 050	32 413 43 884	1 949 999 815 844	1 X
31121	Flour milling and malt manufacturing	207 262 224 527	34 443 57 035	172 819 167 492	4 042 4 920	5 604 7 947	163 173 154 625	1 X
31121M	Flour milling and malt manufacturing	207 262 224 527	34 443 57 035	172 819 167 492	4 042 4 920	5 604 7 947	163 173 154 625	1 X
31122	Starch and vegetable fats and oils manufacturing	1 980 326 570 844	397 316 72 056	1 583 010 498 788	8 162 10 260	20 872 15 217	1 553 976 473 311	1 X
311221	Wet corn milling	786 196 253 524	121 444 31 319	664 752 222 205	821 5 116	9 039 7 338	654 892 209 751	1 X
311225	Fats and oils refining and blending	198 737 117 129	41 658 14 034	157 079 103 095	734 2 428	3 550 4 589	152 794 96 078	1 X
31122N	Soybean and other oilseed processing	995 393 200 191	234 213 26 703	761 179 173 488	6 607 2 716	8 283 3 290	746 289 167 482	1 X
31123	Breakfast cereal manufacturing	277 540 247 430	37 930 37 932	239 610 209 498	822 870	5 937 20 720	232 850 187 908	1 X
311230	Breakfast cereal manufacturing	277 540 247 430	37 930 37 932	239 610 209 498	822 870	5 937 20 720	232 850 187 908	1 X
3113	Sugar and confectionery product manufacturing	1 022 487 741 014	139 203 105 306	883 284 635 708	12 873 13 925	33 049 39 833	837 361 581 950	3 X
31131	Sugar manufacturing	382 777 145 235	31 036 16 544	351 741 128 691	4 403 4 637	5 919 3 709	341 419 120 345	7 X
311313	Beet sugar manufacturing	96 017 46 806	11 287 4 671	84 730 42 135	1 540 449	1 337 469	81 853 41 217	27 X
31131N	Sugar cane mills and refining	286 760 98 429	19 749 11 873	267 011 86 556	2 863 4 188	4 582 3 240	259 566 79 128	1 X
31132	Chocolate and confectionery manufacturing from cacao beans	220 160 97 961	45 766 14 296	174 394 83 665	486 1 626	4 658 3 159	169 251 78 880	1 X
311320	Chocolate and confectionery manufacturing from cacao beans	220 160 97 961	45 766 14 296	174 394 83 665	486 1 626	4 658 3 159	169 251 78 880	1 X
31133	Confectionery manufacturing from purchased chocolate	255 178 242 456	37 484 20 113	217 693 222 343	2 217 3 011	7 524 6 261	207 952 213 071	1 X
311330	Confectionery manufacturing from purchased chocolate	255 178 242 456	37 484 20 113	217 693 222 343	2 217 3 011	7 524 6 261	207 952 213 071	1 X
31134	Nonchocolate confectionery manufacturing	164 372 255 362	24 918 54 353	139 455 201 009	5 768 4 651	14 948 26 704	118 739 169 654	1 X
311340	Nonchocolate confectionery manufacturing	164 372 255 362	24 918 54 353	139 455 201 009	5 768 4 651	14 948 26 704	118 739 169 654	1 X
3114	Fruit and vegetable preserving and specialty food manufacturing	1 419 052 1 827 508	222 696 356 479	1 196 356 1 471 029	17 995 38 607	54 990 113 304	1 123 370 1 319 118	1 X
31141	Frozen food manufacturing	507 888 741 250	84 139 157 100	423 749 584 150	8 530 18 315	22 070 46 394	393 149 519 441	1 X
31141M	Frozen food manufacturing	507 888 741 250	84 139 157 100	423 749 584 150	8 530 18 315	22 070 46 394	393 149 519 441	1 X
31142	Fruit and vegetable canning, pickling, and drying	911 164 1 086 258	138 557 199 379	772 606 886 879	9 465 20 292	32 920 66 910	730 221 799 677	1 X
31142M	Fruit and vegetable canning, pickling, and drying	911 164 1 086 258	138 557 199 379	772 606 886 879	9 465 20 292	32 920 66 910	730 221 799 677	1 X
3115	Dairy product manufacturing	1 765 498 1 737 082	356 896 391 178	1 408 602 1 345 904	59 892 70 494	180 350 60 276	1 168 360 1 215 134	1 X
31151	Dairy product (except frozen) manufacturing	1 573 381 1 504 976	331 525 340 225	1 241 857 1 164 751	51 165 63 496	176 446 54 150	1 014 245 1 047 105	1 X
311513	Cheese manufacturing	642 128 544 744	116 306 117 127	525 822 427 617	13 801 8 966	157 032 18 371	354 989 400 280	1 X
311514	Dry, condensed, and evaporated dairy product manufacturing	321 523 348 447	86 716 81 055	234 807 267 392	4 396 12 931	5 398 16 165	225 013 238 296	1 X
31151N	Fluid milk and butter manufacturing	609 730 611 785	128 503 142 043	481 228 469 742	32 968 41 599	14 016 19 614	434 244 408 529	1 X
31152	Ice cream and frozen dessert manufacturing	192 117 232 106	25 371 50 953	166 746 181 153	8 727 6 998	3 904 6 126	154 115 168 029	1 X
311520	Ice cream and frozen dessert manufacturing	192 117 232 106	25 371 50 953	166 746 181 153	8 727 6 998	3 904 6 126	154 115 168 029	1 X

See footnotes at end of table.

**Table 5. Capital Expenditures for Plant and Equipment by Industry Groups and Industries: 2003 and 2002—Con.**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	Total (new and used)	Buildings and other structures	Machinery and equipment				Relative standard error of estimate <sup>2</sup> (percent) for column—				
				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures					
									A	B	C	D
311	Food manufacturing—Con.											
3116	Animal slaughtering and processing .....	2003.. 1 828 048	380 065	1 447 983	47 123	77 526	1 323 334	1				
		2002.. 2 040 871	450 064	1 590 807	67 001	98 601	1 425 205	X				
31161	Animal slaughtering and processing .....	2003.. 1 828 048	380 065	1 447 983	47 123	77 526	1 323 334	1				
		2002.. 2 040 871	450 064	1 590 807	67 001	98 601	1 425 205	X				
311615	Poultry processing .....	2003.. 645 651	127 977	517 675	13 044	15 553	489 077	1				
		2002.. 675 685	141 286	534 399	18 314	31 944	484 141	X				
31161N	Animal (except poultry) slaughtering and processing.....	2003.. 1 182 396	252 088	930 308	34 079	61 973	834 257	1				
		2002.. 1 365 186	308 778	1 056 408	48 687	66 657	941 064	X				
3117	Seafood product preparation and packaging .....	2003.. 161 845	34 604	127 241	9 944	10 892	106 405	1				
		2002.. 202 438	40 020	162 418	8 702	7 318	146 398	X				
31171	Seafood product preparation and packaging .....	2003.. 161 845	34 604	127 241	9 944	10 892	106 405	1				
		2002.. 202 438	40 020	162 418	8 702	7 318	146 398	X				
31171M	Seafood product preparation and packaging .....	2003.. 161 845	34 604	127 241	9 944	10 892	106 405	1				
		2002.. 202 438	40 020	162 418	8 702	7 318	146 398	X				
3118	Bakeries and tortilla manufacturing .....	2003.. 1 575 475	318 943	1 256 532	86 383	76 065	1 094 083	1				
		2002.. 1 376 251	208 280	1 167 971	65 618	61 103	1 041 250	X				
31181	Bread and bakery product manufacturing .....	2003.. 981 015	218 635	762 380	77 418	42 430	642 532	1				
		2002.. 917 026	126 396	790 630	55 301	43 877	691 452	X				
31181M	Bread and bakery product manufacturing .....	2003.. 981 015	218 635	762 380	77 418	42 430	642 532	1				
		2002.. 917 026	126 396	790 630	55 301	43 877	691 452	X				
31182	Cookie, cracker, and pasta manufacturing .....	2003.. 544 246	93 582	450 664	5 606	31 123	413 935	1				
		2002.. 406 023	75 160	330 863	7 747	14 058	309 058	X				
31182M	Cookie, cracker, and pasta manufacturing .....	2003.. 544 246	93 582	450 664	5 606	31 123	413 935	1				
		2002.. 406 023	75 160	330 863	7 747	14 058	309 058	X				
31183	Tortilla manufacturing .....	2003.. 50 214	6 726	43 488	3 359	2 513	37 616	6				
		2002.. 53 202	6 724	46 478	2 570	3 168	40 740	X				
311830	Tortilla manufacturing .....	2003.. 50 214	6 726	43 488	3 359	2 513	37 616	6				
		2002.. 53 202	6 724	46 478	2 570	3 168	40 740	X				
3119	Other food manufacturing .....	2003.. 1 280 984	184 867	1 096 117	50 844	98 955	946 318	1				
		2002.. 1 464 541	256 974	1 207 567	46 057	76 167	1 085 343	X				
31191	Snack food manufacturing .....	2003.. 401 452	65 477	335 975	20 035	35 069	280 870	1				
		2002.. 474 277	93 117	381 160	13 097	16 296	351 767	X				
31191M	Snack food manufacturing .....	2003.. 401 452	65 477	335 975	20 035	35 069	280 870	1				
		2002.. 474 277	93 117	381 160	13 097	16 296	351 767	X				
31192	Coffee and tea manufacturing .....	2003.. 240 634	33 065	207 569	5 289	12 302	189 979	1				
		2002.. 170 764	19 293	151 471	3 184	6 408	141 879	X				
311920	Coffee and tea manufacturing .....	2003.. 240 634	33 065	207 569	5 289	12 302	189 979	1				
		2002.. 170 764	19 293	151 471	3 184	6 408	141 879	X				
31193	Flavoring syrup and concentrate manufacturing .....	2003.. 41 125	3 441	37 683	642	6 274	30 767	1				
		2002.. 79 144	12 956	66 188	2 124	7 188	56 876	X				
311930	Flavoring syrup and concentrate manufacturing .....	2003.. 41 125	3 441	37 683	642	6 274	30 767	1				
		2002.. 79 144	12 956	66 188	2 124	7 188	56 876	X				
31194	Seasoning and dressing manufacturing .....	2003.. 253 602	40 251	213 350	3 996	19 995	189 360	1				
		2002.. 302 075	67 312	234 763	8 738	19 044	206 981	X				
31194M	Seasoning and dressing manufacturing .....	2003.. 253 602	40 251	213 350	3 996	19 995	189 360	1				
		2002.. 302 075	67 312	234 763	8 738	19 044	206 981	X				
31199	All other food manufacturing .....	2003.. 344 171	42 633	301 539	20 882	25 315	255 342	1				
		2002.. 438 281	64 296	373 985	18 914	27 231	327 840	X				
31199M	All other food manufacturing .....	2003.. 344 171	42 633	301 539	20 882	25 315	255 342	1				
		2002.. 438 281	64 296	373 985	18 914	27 231	327 840	X				
312	Beverage and tobacco product manufacturing .....	2003.. 2 766 705	447 492	2 319 213	85 513	136 747	2 096 953	1				
		2002.. 3 353 256	626 192	2 727 064	105 626	123 705	2 497 733	X				
3121	Beverage manufacturing .....	2003.. 2 471 255	415 159	2 056 096	85 005	127 234	1 843 857	1				
		2002.. 3 067 123	590 908	2 476 215	104 216	111 264	2 260 735	X				
31211	Soft drink and ice manufacturing .....	2003.. 1 003 915	100 759	903 156	70 835	26 555	805 765	1				
		2002.. 1 310 052	183 985	1 126 067	76 063	44 350	1 005 654	X				
31211M	Soft drink and ice manufacturing .....	2003.. 1 003 915	100 759	903 156	70 835	26 555	805 765	1				
		2002.. 1 310 052	183 985	1 126 067	76 063	44 350	1 005 654	X				
31212	Breweries .....	2003.. 1 005 457	176 576	828 881	8 046	81 407	739 428	1				
		2002.. 1 148 082	279 339	868 743	16 552	43 864	808 327	X				
312120	Breweries .....	2003.. 1 005 457	176 576	828 881	8 046	81 407	739 428	1				
		2002.. 1 148 082	279 339	868 743	16 552	43 864	808 327	X				
31213	Wineries .....	2003.. 393 796	122 176	271 620	5 588	18 081	247 951	1				
		2002.. 502 336	103 700	398 636	9 969	18 732	369 935	X				
312130	Wineries .....	2003.. 393 796	122 176	271 620	5 588	18 081	247 951	1				
		2002.. 502 336	103 700	398 636	9 969	18 732	369 935	X				
31214	Distilleries .....	2003.. 68 087	15 648	52 439	537	1 190	50 713	1				
		2002.. 106 653	23 884	82 769	1 632	4 318	76 819	X				
312140	Distilleries .....	2003.. 68 087	15 648	52 439	537	1 190	50 713	1				
		2002.. 106 653	23 884	82 769	1 632	4 318	76 819	X				

See footnotes at end of table.

**Table 5. Capital Expenditures for Plant and Equipment by Industry Groups and Industries: 2003 and 2002—Con.**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	Total (new and used)	Buildings and other structures	Machinery and equipment				Relative standard error of estimate <sup>2</sup> (percent) for column—				
				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures					
									A	B	C	D
312	Beverage and tobacco product manufacturing—Con.											
3122	Tobacco manufacturing.....	2003... 295 450	32 333	263 118	508	9 513	253 097	1				
		2002... 286 133	35 284	250 849	1 410	12 441	236 998	X				
31221	Tobacco stemming and redrying .....	2003... 24 576	5 740	18 836	220	601	18 015	1				
		2002... 9 493	1 743	7 750	221	951	6 578	X				
312210	Tobacco stemming and redrying .....	2003... 24 576	5 740	18 836	220	601	18 015	1				
		2002... 9 493	1 743	7 750	221	951	6 578	X				
31222	Tobacco product manufacturing .....	2003... 270 874	26 593	244 282	288	8 912	235 082	1				
		2002... 276 640	33 541	243 099	1 189	11 490	230 420	X				
31222M	Tobacco product manufacturing .....	2003... 270 874	26 593	244 282	288	8 912	235 082	1				
		2002... 276 640	33 541	243 099	1 189	11 490	230 420	X				
313	Textile mills .....	2003... 1 010 691	82 804	927 888	17 699	52 981	857 207	1				
		2002... 1 413 185	174 022	1 239 163	17 920	92 308	1 128 935	X				
3131	Fiber, yarn, and thread mills .....	2003... 213 293	15 181	198 112	2 236	7 496	188 381	1				
		2002... 287 663	41 823	245 840	2 604	32 596	210 640	X				
31311	Fiber, yarn, and thread mills .....	2003... 213 293	15 181	198 112	2 236	7 496	188 381	1				
		2002... 287 663	41 823	245 840	2 604	32 596	210 640	X				
31311M	Fiber, yarn, and thread mills .....	2003... 213 293	15 181	198 112	2 236	7 496	188 381	1				
		2002... 287 663	41 823	245 840	2 604	32 596	210 640	X				
3132	Fabric mills .....	2003... 579 745	50 080	529 665	8 078	34 474	487 113	1				
		2002... 894 365	93 469	800 896	10 477	49 502	740 917	X				
31321	Broadwoven fabric mills .....	2003... 188 371	9 161	179 210	3 216	11 454	164 540	1				
		2002... 326 595	36 828	289 767	3 676	12 798	273 293	X				
313210	Broadwoven fabric mills .....	2003... 188 371	9 161	179 210	3 216	11 454	164 540	1				
		2002... 326 595	36 828	289 767	3 676	12 798	273 293	X				
31322	Narrow fabric mills and schiffli machine embroidery .....	2003... 35 513	5 327	30 187	373	2 652	27 161	1				
		2002... 42 365	4 475	37 890	1 042	3 020	33 828	X				
31322M	Narrow fabric mills and schiffli machine embroidery .....	2003... 35 513	5 327	30 187	373	2 652	27 161	1				
		2002... 42 365	4 475	37 890	1 042	3 020	33 828	X				
31323	Nonwoven fabric mills .....	2003... 264 256	32 108	232 148	3 124	12 897	216 127	1				
		2002... 422 699	45 905	376 794	1 799	23 225	351 770	X				
313230	Nonwoven fabric mills .....	2003... 264 256	32 108	232 148	3 124	12 897	216 127	1				
		2002... 422 699	45 905	376 794	1 799	23 225	351 770	X				
31324	Knit fabric mills .....	2003... 91 605	3 484	88 120	1 365	7 471	79 285	1				
		2002... 102 706	6 261	96 445	3 960	10 459	82 026	X				
31324M	Knit fabric mills .....	2003... 91 605	3 484	88 120	1 365	7 471	79 285	1				
		2002... 102 706	6 261	96 445	3 960	10 459	82 026	X				
3133	Textile and fabric finishing and fabric coating mills.....	2003... 217 653	17 543	200 110	7 385	11 012	181 713	1				
		2002... 231 157	38 730	192 427	4 839	10 210	177 378	X				
31331	Textile and fabric finishing mills .....	2003... 181 206	12 281	168 925	7 026	8 299	153 600	1				
		2002... 187 108	28 819	158 289	3 901	6 859	147 529	X				
31331M	Textile and fabric finishing mills .....	2003... 181 206	12 281	168 925	7 026	8 299	153 600	1				
		2002... 187 108	28 819	158 289	3 901	6 859	147 529	X				
31332	Fabric coating mills .....	2003... 36 447	5 262	31 185	359	2 713	28 113	1				
		2002... 44 049	9 911	34 138	938	3 351	29 849	X				
313320	Fabric coating mills .....	2003... 36 447	5 262	31 185	359	2 713	28 113	1				
		2002... 44 049	9 911	34 138	938	3 351	29 849	X				
314	Textile product mills .....	2003... 375 298	24 051	351 247	14 313	25 868	311 066	1				
		2002... 423 623	57 584	366 039	17 054	44 395	304 590	X				
3141	Textile furnishings mills .....	2003... 192 199	6 132	186 067	2 058	10 141	173 868	1				
		2002... 217 265	27 200	190 065	6 737	22 782	160 546	X				
31411	Carpet and rug mills.....	2003... 139 246	2 187	137 060	704	3 526	132 830	1				
		2002... 105 462	7 173	98 289	2 259	7 106	88 924	X				
314110	Carpet and rug mills.....	2003... 139 246	2 187	137 060	704	3 526	132 830	1				
		2002... 105 462	7 173	98 289	2 259	7 106	88 924	X				
31412	Curtain and linen mills .....	2003... 52 953	3 945	49 008	1 354	6 615	41 038	1				
		2002... 111 803	20 027	91 776	4 478	15 676	71 622	X				
31412M	Curtain and linen mills .....	2003... 52 953	3 945	49 008	1 354	6 615	41 038	1				
		2002... 111 803	20 027	91 776	4 478	15 676	71 622	X				
3149	Other textile product mills .....	2003... 183 099	17 919	165 180	12 255	15 727	137 198	1				
		2002... 206 358	30 384	175 974	10 317	21 613	144 044	X				
31491	Textile bag and canvas mills .....	2003... 49 787	5 592	44 195	3 567	6 571	34 058	1				
		2002... 51 823	6 793	45 030	5 704	6 437	32 889	X				
31491M	Textile bag and canvas mills .....	2003... 49 787	5 592	44 195	3 567	6 571	34 058	1				
		2002... 51 823	6 793	45 030	5 704	6 437	32 889	X				
31499	All other textile product mills.....	2003... 133 312	12 327	120 985	8 689	9 157	103 140	1				
		2002... 154 535	23 591	130 944	4 613	15 176	111 155	X				
314991	Rope, cordage, and twine mills .....	2003... 13 272	1 683	11 589	201	1 320	10 068	1				
		2002... 22 345	2 776	19 569	327	2 888	16 354	X				
314992	Tire cord and tire fabric mills .....	2003... 23 607	2 109	21 498	35	486	20 977	1				
		2002... 26 879	6 760	20 119	189	964	18 966	X				
314999	All other miscellaneous textile product mills .....	2003... 96 432	8 534	87 898	8 453	7 351	72 095	1				
		2002... 105 311	14 055	91 256	4 097	11 324	75 835	X				

See footnotes at end of table.

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315	Apparel manufacturing .....	2003.. 423 088	83 104	339 984	20 446	82 425	237 113	1
		2002.. 459 792	84 663	375 129	18 477	63 114	293 538	X
3151	Apparel knitting mills .....	2003.. 121 186	26 884	94 301	3 891	13 320	77 091	1
		2002.. 109 634	20 665	88 969	3 768	6 218	78 983	X
31511	Hosiery and sock mills .....	2003.. 102 671	25 360	77 311	2 567	10 135	64 609	1
		2002.. 66 957	8 228	58 729	1 283	3 646	53 800	X
31511M	Hosiery and sock mills .....	2003.. 102 671	25 360	77 311	2 567	10 135	64 609	1
		2002.. 66 957	8 228	58 729	1 283	3 646	53 800	X
31519	Other apparel knitting mills .....	2003.. 18 515	1 524	16 990	1 324	3 184	12 482	1
		2002.. 42 677	12 437	30 240	2 485	2 572	25 183	X
31519M	Other apparel knitting mills .....	2003.. 18 515	1 524	16 990	1 324	3 184	12 482	1
		2002.. 42 677	12 437	30 240	2 485	2 572	25 183	X
3152	Cut and sew apparel manufacturing .....	2003.. 280 004	54 056	225 948	15 892	64 293	145 763	1
		2002.. 314 720	51 832	262 888	12 357	53 407	197 124	X
31521	Cut and sew apparel contractors .....	2003.. 24 731	1 106	23 625	4 322	1 616	17 686	1
		2002.. 46 264	6 090	40 174	3 804	4 032	32 338	X
31521M	Cut and sew apparel contractors .....	2003.. 24 731	1 106	23 625	4 322	1 616	17 686	1
		2002.. 46 264	6 090	40 174	3 804	4 032	32 338	X
31522	Men's and boys' cut and sew apparel manufacturing .....	2003.. 78 071	35 673	42 398	1 584	9 455	31 359	1
		2002.. 91 548	19 534	72 014	2 496	9 739	59 779	X
31522M	Men's and boys' cut and sew apparel manufacturing .....	2003.. 78 071	35 673	42 398	1 584	9 455	31 359	1
		2002.. 91 548	19 534	72 014	2 496	9 739	59 779	X
31523	Women's and girls' cut and sew apparel manufacturing .....	2003.. 153 578	12 879	140 699	8 812	51 096	80 791	1
		2002.. 157 655	24 254	133 401	5 331	36 824	91 246	X
31523M	Women's and girls' cut and sew apparel manufacturing .....	2003.. 153 578	12 879	140 699	8 812	51 096	80 791	1
		2002.. 157 655	24 254	133 401	5 331	36 824	91 246	X
31529	Other cut and sew apparel manufacturing .....	2003.. 23 624	4 397	19 227	1 174	2 126	15 927	1
		2002.. 19 253	1 954	17 299	726	2 812	13 761	X
31529M	Other cut and sew apparel manufacturing .....	2003.. 23 624	4 397	19 227	1 174	2 126	15 927	1
		2002.. 19 253	1 954	17 299	726	2 812	13 761	X
3159	Apparel accessories and other apparel manufacturing .....	2003.. 21 898	2 164	19 734	663	4 812	14 259	1
		2002.. 35 438	12 166	23 272	2 352	3 489	17 431	X
31599	Apparel accessories and other apparel manufacturing .....	2003.. 21 898	2 164	19 734	663	4 812	14 259	1
		2002.. 35 438	12 166	23 272	2 352	3 489	17 431	X
31599M	Apparel accessories and other apparel manufacturing .....	2003.. 21 898	2 164	19 734	663	4 812	14 259	1
		2002.. 35 438	12 166	23 272	2 352	3 489	17 431	X
316	Leather and allied product manufacturing .....	2003.. 82 619	9 517	73 102	1 924	8 031	63 147	1
		2002.. 78 642	9 936	68 706	3 299	9 044	56 363	X
3161	Leather and hide tanning and finishing .....	2003.. 25 019	2 570	22 449	90	462	21 898	1
		2002.. 23 881	2 990	20 891	465	464	19 962	X
31611	Leather and hide tanning and finishing .....	2003.. 25 019	2 570	22 449	90	462	21 898	1
		2002.. 23 881	2 990	20 891	465	464	19 962	X
316110	Leather and hide tanning and finishing .....	2003.. 25 019	2 570	22 449	90	462	21 898	1
		2002.. 23 881	2 990	20 891	465	464	19 962	X
3162	Footwear manufacturing .....	2003.. 32 312	4 087	28 225	1 420	4 021	22 783	1
		2002.. 33 976	3 484	30 492	1 443	3 762	25 287	X
31621	Footwear manufacturing .....	2003.. 32 312	4 087	28 225	1 420	4 021	22 783	1
		2002.. 33 976	3 484	30 492	1 443	3 762	25 287	X
31621M	Footwear manufacturing .....	2003.. 32 312	4 087	28 225	1 420	4 021	22 783	1
		2002.. 33 976	3 484	30 492	1 443	3 762	25 287	X
3169	Other leather and allied product manufacturing .....	2003.. 25 288	2 860	22 428	414	3 548	18 466	1
		2002.. 20 785	3 462	17 323	1 391	4 818	11 114	X
31699	Other leather and allied product manufacturing .....	2003.. 25 288	2 860	22 428	414	3 548	18 466	1
		2002.. 20 785	3 462	17 323	1 391	4 818	11 114	X
31699M	Other leather and allied product manufacturing .....	2003.. 25 288	2 860	22 428	414	3 548	18 466	1
		2002.. 20 785	3 462	17 323	1 391	4 818	11 114	X
321	Wood product manufacturing .....	2003.. 2 175 724	259 183	1 916 540	168 868	125 620	1 622 052	1
		2002.. 2 415 167	384 478	2 030 689	150 748	131 591	1 748 350	X
3211	Sawmills and wood preservation .....	2003.. 810 452	71 383	739 068	51 612	22 734	664 722	1
		2002.. 812 816	96 645	716 171	40 890	30 584	644 697	X
32111	Sawmills and wood preservation .....	2003.. 810 452	71 383	739 068	51 612	22 734	664 722	1
		2002.. 812 816	96 645	716 171	40 890	30 584	644 697	X
32111M	Sawmills and wood preservation .....	2003.. 810 452	71 383	739 068	51 612	22 734	664 722	1
		2002.. 812 816	96 645	716 171	40 890	30 584	644 697	X
3212	Veneer, plywood, and engineered wood product manufacturing .....	2003.. 489 204	61 179	428 025	33 535	17 354	377 136	1
		2002.. 564 848	59 224	505 624	33 939	18 911	452 774	X
32121	Veneer, plywood, and engineered wood product manufacturing .....	2003.. 489 204	61 179	428 025	33 535	17 354	377 136	1
		2002.. 564 848	59 224	505 624	33 939	18 911	452 774	X
321219	Reconstituted wood product manufacturing .....	2003.. 191 203	21 454	169 749	1 849	3 032	164 868	1
		2002.. 257 669	26 247	231 422	2 208	4 318	224 896	X
32121N	Veneer and plywood manufacturing .....	2003.. 139 764	15 944	123 820	4 195	4 296	115 329	1
		2002.. 163 807	12 716	151 091	5 350	4 586	141 155	X
32121P	Engineered wood product manufacturing .....	2003.. 158 237	23 781	134 456	27 490	10 026	96 939	1
		2002.. 143 372	20 261	123 111	26 381	10 007	86 723	X

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				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures		
									A
321	Wood product manufacturing—Con.								
3219	Other wood product manufacturing .....	2003.. 876 068	126 621	749 447	83 722	85 532	580 193	1	
		2002.. 1 037 503	228 609	808 894	75 919	82 096	650 879	X	
32191	Millwork .....	2003.. 478 873	55 899	422 974	21 868	52 725	348 381	1	
		2002.. 607 698	144 164	463 534	27 435	46 844	389 255	X	
32191M	Millwork .....	2003.. 478 873	55 899	422 974	21 868	52 725	348 381	1	
		2002.. 607 698	144 164	463 534	27 435	46 844	389 255	X	
32192	Wood container and pallet manufacturing .....	2003.. 105 135	19 513	85 622	13 147	5 756	66 719	1	
		2002.. 120 639	14 323	106 316	14 248	10 107	81 961	X	
321920	Wood container and pallet manufacturing .....	2003.. 105 135	19 513	85 622	13 147	5 756	66 719	1	
		2002.. 120 639	14 323	106 316	14 248	10 107	81 961	X	
32199	All other wood product manufacturing .....	2003.. 292 060	51 210	240 850	48 706	27 051	165 093	1	
		2002.. 309 166	70 122	239 044	34 236	25 145	179 663	X	
321991	Manufactured home (mobile home) manufacturing .....	2003.. 58 556	26 365	32 191	5 240	4 036	22 915	1	
		2002.. 71 880	24 459	47 421	7 204	5 402	34 815	X	
321992	Prefabricated wood building manufacturing .....	2003.. 100 997	8 742	92 255	35 045	5 055	52 156	1	
		2002.. 81 552	26 323	55 229	16 518	5 302	33 409	X	
321999	All other miscellaneous wood product manufacturing .....	2003.. 132 507	16 103	116 404	8 422	17 960	90 022	1	
		2002.. 155 734	19 340	136 394	10 514	14 441	111 439	X	
322	Paper manufacturing .....	2003.. 5 920 509	615 532	5 304 977	58 682	201 141	5 045 153	1	
		2002.. 6 259 775	807 326	5 452 449	73 059	233 074	5 146 316	X	
3221	Pulp, paper, and paperboard mills .....	2003.. 3 670 781	312 208	3 358 573	15 835	104 003	3 238 736	1	
		2002.. 3 779 130	462 717	3 316 413	20 287	122 546	3 173 580	X	
32211	Pulp mills .....	2003.. 182 079	10 891	171 188	218	4 453	166 517	1	
		2002.. 188 847	5 318	183 529	2 355	5 704	175 470	X	
322110	Pulp mills .....	2003.. 182 079	10 891	171 188	218	4 453	166 517	1	
		2002.. 188 847	5 318	183 529	2 355	5 704	175 470	X	
32212	Paper mills .....	2003.. 2 693 365	242 515	2 450 851	3 630	86 269	2 360 951	1	
		2002.. 2 771 869	391 492	2 380 377	8 609	81 220	2 290 548	X	
32212M	Paper and newsprint mills .....	2003.. 2 693 365	242 515	2 450 851	3 630	86 269	2 360 951	1	
		2002.. 2 771 869	391 492	2 380 377	8 609	81 220	2 290 548	X	
32213	Paperboard mills .....	2003.. 795 338	58 803	736 535	11 987	13 280	711 268	1	
		2002.. 818 414	65 907	752 507	9 323	35 622	707 562	X	
322130	Paperboard mills .....	2003.. 795 338	58 803	736 535	11 987	13 280	711 268	1	
		2002.. 818 414	65 907	752 507	9 323	35 622	707 562	X	
3222	Converted paper product manufacturing .....	2003.. 2 249 727	303 324	1 946 403	42 847	97 139	1 806 417	1	
		2002.. 2 480 645	344 609	2 136 036	52 772	110 528	1 972 736	X	
32221	Paperboard container manufacturing .....	2003.. 1 177 412	144 960	1 032 452	32 166	39 343	960 943	1	
		2002.. 1 289 893	157 901	1 131 992	32 466	56 320	1 043 206	X	
32221M	Paperboard container manufacturing .....	2003.. 1 177 412	144 960	1 032 452	32 166	39 343	960 943	1	
		2002.. 1 289 893	157 901	1 131 992	32 466	56 320	1 043 206	X	
32222	Paper bag and coated and treated paper manufacturing .....	2003.. 401 724	81 386	320 338	3 796	19 594	296 948	3	
		2002.. 527 859	98 072	429 787	8 053	19 713	402 021	X	
32222N	Coated and laminated paper and packaging manufacturing .....	2003.. 278 638	67 587	211 051	3 134	14 119	193 798	4	
		2002.. 403 647	88 999	314 648	6 234	15 929	292 485	X	
32222P	Coated, uncoated, and multiwall bag and packaging manufacturing .....	2003.. 123 086	13 800	109 287	662	5 475	103 150	1	
		2002.. 124 212	9 073	115 139	1 819	3 784	109 536	X	
32223	Stationery product manufacturing .....	2003.. 99 644	6 211	93 434	1 469	12 237	79 728	7	
		2002.. 143 985	20 666	123 319	5 046	11 916	106 357	X	
32223M	Stationery product manufacturing .....	2003.. 99 644	6 211	93 434	1 469	12 237	79 728	7	
		2002.. 143 985	20 666	123 319	5 046	11 916	106 357	X	
32229	Other converted paper product manufacturing .....	2003.. 570 947	70 767	500 180	5 416	25 965	468 799	1	
		2002.. 518 908	67 970	450 938	7 207	22 579	421 152	X	
322291	Sanitary paper product manufacturing .....	2003.. 434 351	36 209	398 142	1 281	13 721	383 140	1	
		2002.. 414 819	55 461	359 358	2 212	15 254	341 892	X	
322299	All other converted paper product manufacturing .....	2003.. 136 596	34 558	102 038	4 135	12 244	85 659	1	
		2002.. 104 089	12 509	91 580	4 995	7 325	79 260	X	
323	Printing and related support activities .....	2003.. 3 810 768	385 389	3 425 379	109 831	376 425	2 939 122	1	
		2002.. 3 895 836	437 109	3 458 727	124 910	420 131	2 913 686	X	
3231	Printing and related support activities .....	2003.. 3 810 768	385 389	3 425 379	109 831	376 425	2 939 122	1	
		2002.. 3 895 836	437 109	3 458 727	124 910	420 131	2 913 686	X	
32311	Printing .....	2003.. 3 593 465	352 215	3 241 250	97 936	340 560	2 802 754	1	
		2002.. 3 690 622	414 963	3 275 659	115 546	384 160	2 775 953	X	
32311M	Printing .....	2003.. 3 593 465	352 215	3 241 250	97 936	340 560	2 802 754	1	
		2002.. 3 690 622	414 963	3 275 659	115 546	384 160	2 775 953	X	
32312	Support activities for printing .....	2003.. 217 303	33 174	184 129	11 896	35 865	136 368	1	
		2002.. 205 214	22 146	183 068	9 364	35 971	137 733	X	
32312M	Support activities for printing .....	2003.. 217 303	33 174	184 129	11 896	35 865	136 368	1	
		2002.. 205 214	22 146	183 068	9 364	35 971	137 733	X	

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				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures	
324	Petroleum and coal products manufacturing .....	2003.. 7 696 269	998 059	6 698 210	93 412	209 435	6 395 363	1
	2002.. 8 130 609	3 464 034	4 666 575	53 795	210 109	4 402 671	X	
3241	Petroleum and coal products manufacturing .....	2003.. 7 696 269	998 059	6 698 210	93 412	209 435	6 395 363	1
	2002.. 8 130 609	3 464 034	4 666 575	53 795	210 109	4 402 671	X	
32411	Petroleum refineries .....	2003.. 7 167 662	859 413	6 308 249	74 685	196 295	6 037 268	1
	2002.. 7 384 793	3 304 244	4 080 549	26 258	187 903	3 866 388	X	
324110	Petroleum refineries .....	2003.. 7 167 662	859 413	6 308 249	74 685	196 295	6 037 268	1
	2002.. 7 384 793	3 304 244	4 080 549	26 258	187 903	3 866 388	X	
32412	Asphalt paving, roofing, and saturated materials manufacturing .....	2003.. 330 359	22 555	307 804	15 605	6 949	285 250	1
	2002.. 512 345	50 631	461 714	22 630	14 380	424 704	X	
324121	Asphalt paving mixture and block manufacturing .....	2003.. 166 944	9 485	157 459	14 214	3 722	139 524	1
	2002.. 303 614	34 728	268 886	20 204	10 388	238 294	X	
324122	Asphalt shingle and coating materials manufacturing .....	2003.. 163 415	13 070	150 345	1 391	3 228	145 726	1
	2002.. 208 731	15 903	192 828	2 426	3 992	186 410	X	
32419	Other petroleum and coal products manufacturing .....	2003.. 198 248	116 091	82 157	3 122	6 191	72 845	1
	2002.. 233 471	109 159	124 312	4 907	7 826	111 579	X	
324191	Petroleum lubricating oil and grease manufacturing .....	2003.. 102 334	36 285	66 049	2 242	6 017	57 790	1
	2002.. 108 772	13 089	95 683	3 809	6 124	85 750	X	
324199	All other petroleum and coal products manufacturing .....	2003.. 95 914	79 805	16 108	880	174	15 055	1
	2002.. 124 699	96 070	28 629	1 098	1 702	25 829	X	
325	Chemical manufacturing .....	2003.. 15 449 021	2 889 157	12 559 864	205 257	799 991	11 554 616	1
	2002.. 18 193 376	3 483 083	14 710 293	276 004	930 268	13 504 021	X	
3251	Basic chemical manufacturing .....	2003.. 4 014 806	457 516	3 557 290	44 856	119 550	3 392 883	1
	2002.. 4 861 213	554 442	4 306 771	67 757	182 113	4 056 901	X	
32511	Petrochemical manufacturing .....	2003.. 466 715	2 880	463 835	1 013	2 637	460 185	1
	2002.. 504 837	82 895	421 942	3 402	11 334	407 206	X	
325110	Petrochemical manufacturing .....	2003.. 466 715	2 880	463 835	1 013	2 637	460 185	1
	2002.. 504 837	82 895	421 942	3 402	11 334	407 206	X	
32512	Industrial gas manufacturing .....	2003.. 339 815	51 440	288 375	23 071	5 152	260 152	1
	2002.. 347 247	16 925	330 322	18 202	5 101	307 019	X	
325120	Industrial gas manufacturing .....	2003.. 339 815	51 440	288 375	23 071	5 152	260 152	1
	2002.. 347 247	16 925	330 322	18 202	5 101	307 019	X	
32513	Synthetic dye and pigment manufacturing .....	2003.. 248 475	24 429	224 045	5 219	10 075	208 751	1
	2002.. 246 054	48 906	197 148	1 979	8 448	186 721	X	
32513M	Synthetic dye and pigment manufacturing .....	2003.. 248 475	24 429	224 045	5 219	10 075	208 751	1
	2002.. 246 054	48 906	197 148	1 979	8 448	186 721	X	
32518	Other basic inorganic chemical manufacturing .....	2003.. 1 086 533	252 953	833 580	9 906	48 514	775 160	1
	2002.. 1 033 071	146 210	886 861	19 459	56 625	810 777	X	
325181	Alkalies and chlorine manufacturing .....	2003.. 136 831	5 355	131 475	D	D	128 455	1
	2002.. 117 552	9 171	108 381	D	D	106 539	X	
325182	Carbon black manufacturing .....	2003.. 47 595	3 590	44 005	D	D	42 627	1
	2002.. 40 087	5 470	34 617	D	D	29 256	X	
325188	All other basic inorganic chemical manufacturing .....	2003.. 902 107	244 008	658 099	8 873	45 148	604 079	1
	2002.. 875 432	131 569	743 863	17 478	51 403	674 982	X	
32519	Other basic organic chemical manufacturing .....	2003.. 1 873 268	125 813	1 747 455	5 648	53 173	1 688 634	1
	2002.. 2 730 004	259 506	2 470 498	24 715	100 605	2 345 178	X	
32519M	Other basic organic chemical manufacturing .....	2003.. 1 873 268	125 813	1 747 455	5 648	53 173	1 688 634	1
	2002.. 2 730 004	259 506	2 470 498	24 715	100 605	2 345 178	X	
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing .....	2003.. 1 935 730	176 496	1 759 233	6 699	52 660	1 699 874	1
	2002.. 2 623 786	273 484	2 350 302	10 863	68 951	2 270 488	X	
32521	Resin and synthetic rubber manufacturing .....	2003.. 1 699 345	165 175	1 534 170	5 640	49 439	1 479 090	1
	2002.. 2 346 808	255 937	2 090 871	10 290	63 904	2 016 677	X	
325211	Plastics material and resin manufacturing .....	2003.. 1 478 137	125 935	1 352 202	5 146	38 896	1 308 160	1
	2002.. 2 067 816	229 051	1 838 765	9 342	55 559	1 773 864	X	
325212	Synthetic rubber manufacturing .....	2003.. 221 208	39 240	181 968	494	10 544	170 930	1
	2002.. 278 992	26 886	252 106	948	8 345	242 813	X	
32522	Artificial and synthetic fibers and filaments manufacturing .....	2003.. 236 385	11 321	225 064	1 059	3 221	220 784	1
	2002.. 276 978	17 547	259 431	573	5 047	253 811	X	
32522M	Artificial and synthetic fibers and filaments manufacturing .....	2003.. 236 385	11 321	225 064	1 059	3 221	220 784	1
	2002.. 276 978	17 547	259 431	573	5 047	253 811	X	
3253	Pesticide, fertilizer, and other agricultural chemical manufacturing .....	2003.. 492 975	54 690	438 284	7 826	9 329	421 129	1
	2002.. 629 462	106 672	522 790	16 471	11 112	495 207	X	
32531	Fertilizer manufacturing .....	2003.. 347 026	50 047	296 979	6 901	4 693	285 385	1
	2002.. 455 505	87 144	368 361	13 637	7 285	347 439	X	
325311	Nitrogenous fertilizer manufacturing .....	2003.. 85 689	1 458	84 232	642	1 077	82 513	1
	2002.. 108 669	7 802	100 867	1 449	916	98 502	X	
325312	Phosphatic fertilizer manufacturing .....	2003.. 187 662	44 702	142 961	1 118	1 679	140 164	1
	2002.. 249 511	59 595	189 916	2 607	3 207	184 102	X	
325314	Fertilizer (mixing only) manufacturing .....	2003.. 73 674	3 888	69 786	5 141	1 937	62 708	1
	2002.. 97 325	19 747	77 578	9 581	3 162	64 835	X	
32532	Pesticide and other agricultural chemical manufacturing .....	2003.. 145 949	4 644	141 305	925	4 636	135 744	3
	2002.. 173 957	19 528	154 429	2 834	3 827	147 768	X	
325320	Pesticide and other agricultural chemical manufacturing .....	2003.. 145 949	4 644	141 305	925	4 636	135 744	3
	2002.. 173 957	19 528	154 429	2 834	3 827	147 768	X	

See footnotes at end of table.

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				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures					
									A	B	C	D
325	Chemical manufacturing—Con.											
3254	Pharmaceutical and medicine manufacturing .....	2003.. 5 717 402	1 747 423	3 969 979	88 909	376 358	3 504 712	1				
		2002.. 5 803 851	1 861 164	3 942 687	110 015	422 284	3 410 388	X				
32541	Pharmaceutical and medicine manufacturing .....	2003.. 5 717 402	1 747 423	3 969 979	88 909	376 358	3 504 712	1				
		2002.. 5 803 851	1 861 164	3 942 687	110 015	422 284	3 410 388	X				
325411	Medicinal and botanical manufacturing .....	2003.. 631 800	163 480	468 319	1 985	25 978	440 356	1				
		2002.. 753 012	216 298	536 714	6 269	31 739	498 706	X				
325412	Pharmaceutical preparation manufacturing .....	2003.. 4 211 997	1 365 393	2 846 604	80 624	284 857	2 481 123	1				
		2002.. 4 205 887	1 366 350	2 839 537	97 306	327 633	2 414 598	X				
325413	In-vitro diagnostic substance manufacturing .....	2003.. 218 131	23 218	194 913	835	28 094	165 985	1				
		2002.. 283 821	46 712	237 109	2 225	34 333	200 551	X				
325414	Biological product (except diagnostic) manufacturing .....	2003.. 655 474	195 331	460 143	5 465	37 430	417 248	1				
		2002.. 561 131	231 804	329 327	4 215	28 579	296 533	X				
3255	Paint, coating, and adhesive manufacturing .....	2003.. 547 224	92 152	455 072	10 121	76 674	368 277	1				
		2002.. 624 200	120 163	504 037	12 602	81 013	410 422	X				
32551	Paint and coating manufacturing .....	2003.. 361 347	75 019	286 328	6 403	61 221	218 704	1				
		2002.. 446 711	95 494	351 217	10 017	72 400	268 800	X				
325510	Paint and coating manufacturing .....	2003.. 361 347	75 019	286 328	6 403	61 221	218 704	1				
		2002.. 446 711	95 494	351 217	10 017	72 400	268 800	X				
32552	Adhesive manufacturing .....	2003.. 185 877	17 134	168 744	3 717	15 453	149 573	2				
		2002.. 177 489	24 669	152 820	2 585	8 613	141 622	X				
325520	Adhesive manufacturing .....	2003.. 185 877	17 134	168 744	3 717	15 453	149 573	2				
		2002.. 177 489	24 669	152 820	2 585	8 613	141 622	X				
3256	Soap, cleaning compound, and toilet preparation manufacturing .....	2003.. 1 375 195	160 909	2 124 286	19 103	78 116	1 117 067	1				
		2002.. 2 351 148	340 883	2 010 265	33 348	99 344	1 877 573	X				
32561	Soap and cleaning compound manufacturing .....	2003.. 711 319	79 569	631 750	11 544	31 884	588 322	1				
		2002.. 1 662 673	222 044	1 440 629	14 859	44 628	1 381 142	X				
32561M	Soap and cleaning compound manufacturing .....	2003.. 711 319	79 569	631 750	11 544	31 884	588 322	1				
		2002.. 1 662 673	222 044	1 440 629	14 859	44 628	1 381 142	X				
32562	Toilet preparation manufacturing .....	2003.. 663 876	81 340	582 536	7 559	46 232	528 745	1				
		2002.. 688 475	118 839	569 636	18 489	54 716	496 431	X				
325620	Toilet preparation manufacturing .....	2003.. 663 876	81 340	582 536	7 559	46 232	528 745	1				
		2002.. 688 475	118 839	569 636	18 489	54 716	496 431	X				
3259	Other chemical product and preparation manufacturing .....	2003.. 1 365 689	199 969	1 165 720	27 742	87 303	1 050 675	1				
		2002.. 1 299 716	226 275	1 073 441	24 948	65 451	983 042	X				
32591	Printing ink manufacturing .....	2003.. 97 803	17 532	80 271	4 699	11 539	64 033	1				
		2002.. 94 678	11 837	82 841	3 991	7 617	71 233	X				
325910	Printing ink manufacturing .....	2003.. 97 803	17 532	80 271	4 699	11 539	64 033	1				
		2002.. 94 678	11 837	82 841	3 991	7 617	71 233	X				
32592	Explosives manufacturing .....	2003.. 19 036	5 897	13 140	1 128	1 920	10 092	4				
		2002.. 24 990	1 690	23 300	2 786	785	19 729	X				
325920	Explosives manufacturing .....	2003.. 19 036	5 897	13 140	1 128	1 920	10 092	4				
		2002.. 24 990	1 690	23 300	2 786	785	19 729	X				
32599	All other chemical product and preparation manufacturing .....	2003.. 1 248 850	176 540	1 072 310	21 914	73 844	976 551	1				
		2002.. 1 180 048	212 748	967 300	18 171	57 049	892 080	X				
325991	Custom compounding of purchased resins .....	2003.. 396 058	43 593	352 465	13 455	20 922	318 088	1				
		2002.. 235 967	39 923	196 044	4 814	8 556	182 674	X				
32599N	All other miscellaneous chemical product and preparation manufacturing (including photographic) .....	2003.. 852 792	132 947	719 845	8 459	52 922	658 463	1				
		2002.. 944 081	172 825	771 256	13 357	48 493	709 406	X				
326	Plastics and rubber products manufacturing .....	2003.. 6 643 987	641 731	6 002 256	135 698	317 626	5 548 931	1				
		2002.. 7 402 480	906 188	6 496 292	166 445	356 716	5 973 131	X				
3261	Plastics product manufacturing .....	2003.. 5 729 334	571 599	5 157 735	123 066	275 090	4 759 579	1				
		2002.. 6 302 403	798 885	5 503 518	146 487	318 739	5 038 292	X				
32611	Unsupported plastics film, sheet, and bag manufacturing .....	2003.. 997 273	87 880	909 393	15 946	54 720	838 728	1				
		2002.. 1 277 508	140 900	1 136 608	17 935	72 278	1 046 395	X				
326111	Plastics bag manufacturing .....	2003.. 248 820	23 376	225 444	6 772	9 683	208 989	1				
		2002.. 314 067	27 162	286 905	5 263	12 142	269 500	X				
326112	Plastics packaging film and sheet (including laminated) manufacturing .....	2003.. 291 749	27 545	264 204	1 504	13 740	248 960	1				
		2002.. 294 592	31 645	262 947	4 030	9 088	249 829	X				
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	2003.. 456 704	36 959	419 745	7 669	31 298	380 778	1				
		2002.. 668 849	82 093	586 756	8 642	51 048	527 066	X				
32612	Plastics pipe, pipe fitting, and unsupported profile shape manufacturing .....	2003.. 454 153	62 746	391 407	7 013	17 727	366 667	1				
		2002.. 544 993	80 090	464 903	8 873	22 346	433 684	X				
326121	Unsupported plastics profile shape manufacturing .....	2003.. 222 324	30 017	192 307	3 397	11 560	177 351	1				
		2002.. 297 453	39 368	258 085	4 861	17 076	236 148	X				
326122	Plastics pipe and pipe fitting manufacturing .....	2003.. 231 829	32 729	199 100	3 617	6 167	189 316	1				
		2002.. 247 540	40 722	206 818	4 012	5 270	197 536	X				
32613	Laminated plastics plate, sheet, and shape manufacturing .....	2003.. 61 819	9 094	52 725	2 714	2 533	47 479	1				
		2002.. 75 598	9 951	65 647	3 735	6 934	54 978	X				
326130	Laminated plastics plate, sheet, and shape manufacturing .....	2003.. 61 819	9 094	52 725	2 714	2 533	47 479	1				
		2002.. 75 598	9 951	65 647	3 735	6 934	54 978	X				
32614	Polystyrene foam product manufacturing .....	2003.. 171 475	22 155	149 320	5 601	4 489	139 230	1				
		2002.. 270 874	54 159	216 715	7 597	15 288	193 830	X				
326140	Polystyrene foam product manufacturing .....	2003.. 171 475	22 155	149 320	5 601	4 489	139 230	1				
		2002.. 270 874	54 159	216 715	7 597	15 288	193 830	X				

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				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures					
									A	B	C	D
326	Plastics and rubber products manufacturing—Con.											
3261	Plastics product manufacturing—Con.											
32615	Urethane and other foam product (except polystyrene) manufacturing .....	2003.. 425 853	19 232	406 621	4 514	7 160	394 947	1				
		2002.. 182 103	26 383	155 720	8 703	9 923	137 094	X				
326150	Urethane and other foam product (except polystyrene) manufacturing .....	2003.. 425 853	19 232	406 621	4 514	7 160	394 947	1				
		2002.. 182 103	26 383	155 720	8 703	9 923	137 094	X				
32616	Plastics bottle manufacturing .....	2003.. 443 993	15 794	428 200	2 002	4 594	421 604	1				
		2002.. 521 685	30 934	490 751	4 726	13 829	472 196	X				
326160	Plastics bottle manufacturing .....	2003.. 443 993	15 794	428 200	2 002	4 594	421 604	1				
		2002.. 521 685	30 934	490 751	4 726	13 829	472 196	X				
32619	Other plastics product manufacturing .....	2003.. 3 174 767	354 698	2 820 069	85 276	183 868	2 550 925	1				
		2002.. 3 429 642	456 468	2 973 174	94 918	178 141	2 700 115	X				
32619M	Other plastics product manufacturing .....	2003.. 3 174 767	354 698	2 820 069	85 276	183 868	2 550 925	1				
		2002.. 3 429 642	456 468	2 973 174	94 918	178 141	2 700 115	X				
3262	Rubber product manufacturing .....	2003.. 914 653	70 132	844 521	12 632	42 536	789 353	1				
		2002.. 1 100 077	107 303	992 774	19 958	37 977	934 839	X				
32621	Tire manufacturing .....	2003.. 454 501	19 150	435 351	3 408	14 076	417 867	1				
		2002.. 528 132	24 747	503 385	7 329	10 317	485 739	X				
32621M	Tire manufacturing .....	2003.. 454 501	19 150	435 351	3 408	14 076	417 867	1				
		2002.. 528 132	24 747	503 385	7 329	10 317	485 739	X				
32622	Rubber and plastics hoses and belting manufacturing .....	2003.. 94 024	18 346	75 679	884	4 431	70 363	1				
		2002.. 121 678	20 914	100 764	1 270	3 725	95 769	X				
326220	Rubber and plastics hoses and belting manufacturing .....	2003.. 94 024	18 346	75 679	884	4 431	70 363	1				
		2002.. 121 678	20 914	100 764	1 270	3 725	95 769	X				
32629	Other rubber product manufacturing .....	2003.. 366 128	32 637	333 491	8 340	24 028	301 123	1				
		2002.. 450 267	61 642	388 625	11 359	23 935	353 331	X				
32629M	Other rubber product manufacturing .....	2003.. 366 128	32 637	333 491	8 340	24 028	301 123	1				
		2002.. 450 267	61 642	388 625	11 359	23 935	353 331	X				
327	Nonmetallic mineral product manufacturing .....	2003.. 4 786 684	644 139	4 142 545	469 502	159 655	3 513 387	1				
		2002.. 5 189 521	768 254	4 421 267	418 650	182 499	3 820 118	X				
3271	Clay product and refractory manufacturing .....	2003.. 382 717	57 747	324 970	32 004	16 105	276 860	1				
		2002.. 361 407	60 410	300 997	12 893	18 236	269 868	X				
32711	Pottery, ceramics, and plumbing fixture manufacturing .....	2003.. 114 246	13 138	101 108	747	4 968	95 394	1				
		2002.. 110 203	16 613	93 590	1 900	6 686	85 004	X				
327111	Vitreous china plumbing fixture and china and earthenware bathroom accessories manufacturing .....	2003.. 12 063	1 014	11 049	D	248	D	2				
		2002.. 25 191	2 288	22 903	D	2 859	D	X				
327112	Vitreous china, fine earthenware, and other pottery product manufacturing .....	2003.. 67 900	7 885	60 015	601	2 071	57 344	1				
		2002.. 33 406	5 448	27 958	672	1 846	25 440	X				
327113	Porcelain electrical supply manufacturing .....	2003.. 34 283	4 239	30 044	D	2 649	D	1				
		2002.. 51 606	8 877	42 729	D	1 981	D	X				
32712	Clay building material and refractories manufacturing .....	2003.. 268 471	44 610	223 861	31 257	11 138	181 466	1				
		2002.. 251 204	43 797	207 407	10 993	11 550	184 864	X				
327121	Brick and structural clay tile manufacturing .....	2003.. 164 414	32 446	131 969	28 706	4 241	99 022	1				
		2002.. 143 067	19 147	123 920	8 534	3 105	112 281	X				
327122	Ceramic wall and floor tile manufacturing .....	2003.. 43 680	8 061	35 618	1 401	4 723	29 495	1				
		2002.. 33 756	5 950	27 806	954	3 946	22 906	X				
327123	Other structural clay product manufacturing .....	2003.. 6 790	640	6 150	398	308	5 445	1				
		2002.. 16 705	4 238	12 467	512	250	11 705	X				
32712N	Refractory manufacturing .....	2003.. 53 587	3 462	50 125	753	1 866	47 505	1				
		2002.. 57 676	14 462	43 214	993	4 249	37 972	X				
3272	Glass and glass product manufacturing .....	2003.. 1 183 403	99 248	1 084 155	12 684	25 654	1 045 816	1				
		2002.. 1 094 707	104 828	989 879	13 117	36 738	940 024	X				
32721	Glass and glass product manufacturing .....	2003.. 1 183 403	99 248	1 084 155	12 684	25 654	1 045 816	1				
		2002.. 1 094 707	104 828	989 879	13 117	36 738	940 024	X				
327211	Flat glass manufacturing .....	2003.. 146 267	14 349	131 918	D	D	130 036	1				
		2002.. 156 944	9 453	147 491	863	2 057	144 571	X				
327212	Other pressed and blown glass and glassware manufacturing .....	2003.. 318 738	18 500	300 238	877	7 331	292 029	1				
		2002.. 299 805	31 661	268 144	1 853	14 292	251 999	X				
327213	Glass container manufacturing .....	2003.. 395 689	14 359	381 330	D	D	378 407	1				
		2002.. 273 468	23 688	249 780	257	1 937	247 586	X				
327215	Glass product manufacturing made of purchased glass .....	2003.. 322 709	52 041	270 669	11 145	14 179	245 345	1				
		2002.. 364 490	40 026	324 464	10 144	18 452	295 868	X				
3273	Cement and concrete product manufacturing .....	2003.. 2 339 325	381 458	1 957 867	402 103	85 005	1 470 759	1				
		2002.. 2 821 316	453 562	2 367 754	361 946	93 584	1 912 224	X				
32731	Cement manufacturing .....	2003.. 820 311	181 079	639 232	9 887	18 618	610 728	1				
		2002.. 1 300 842	184 458	1 116 384	10 730	14 226	1 091 428	X				
327310	Cement manufacturing .....	2003.. 820 311	181 079	639 232	9 887	18 618	610 728	1				
		2002.. 1 300 842	184 458	1 116 384	10 730	14 226	1 091 428	X				
32732	Ready-mix concrete manufacturing .....	2003.. 945 849	74 476	871 373	338 421	42 891	490 061	1				
		2002.. 892 390	129 446	762 944	282 136	49 075	431 733	X				
327320	Ready-mix concrete manufacturing .....	2003.. 945 849	74 476	871 373	338 421	42 891	490 061	1				
		2002.. 892 390	129 446	762 944	282 136	49 075	431 733	X				
32733	Concrete pipe, brick, and block manufacturing .....	2003.. 273 036	58 932	214 105	21 481	8 258	184 366	1				
		2002.. 291 640	72 577	219 063	38 415	11 873	168 775	X				
32733M	Concrete pipe, brick, and block manufacturing .....	2003.. 273 036	58 932	214 105	21 481	8 258	184 366	1				
		2002.. 291 640	72 577	219 063	38 415	11 873	168 775	X				

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				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures		
									A
327	Nonmetallic mineral product manufacturing—Con.								
3273	Cement and concrete product manufacturing—Con.								
32739	Other concrete product manufacturing .....	2003.. 300 129	66 971	233 157	32 315	15 239	185 603	1	
		2002.. 336 444	67 081	269 363	30 665	18 410	220 288	X	
327390	Other concrete product manufacturing .....	2003.. 300 129	66 971	233 157	32 315	15 239	185 603	1	
		2002.. 336 444	67 081	269 363	30 665	18 410	220 288	X	
3274	Lime and gypsum product manufacturing .....	2003.. 335 000	45 318	289 682	5 244	2 915	281 523	1	
		2002.. 203 367	26 728	176 639	4 291	4 567	167 781	X	
32741	Lime manufacturing .....	2003.. 55 997	4 264	51 733	758	1 365	49 610	1	
		2002.. 42 939	6 776	36 163	1 845	664	33 654	X	
327410	Lime manufacturing .....	2003.. 55 997	4 264	51 733	758	1 365	49 610	1	
		2002.. 42 939	6 776	36 163	1 845	664	33 654	X	
32742	Gypsum product manufacturing .....	2003.. 279 003	41 054	237 950	4 487	1 550	231 913	1	
		2002.. 160 428	19 952	140 476	2 446	3 903	134 127	X	
327420	Gypsum product manufacturing .....	2003.. 279 003	41 054	237 950	4 487	1 550	231 913	1	
		2002.. 160 428	19 952	140 476	2 446	3 903	134 127	X	
3279	Other nonmetallic mineral product manufacturing .....	2003.. 546 239	60 368	485 871	17 467	29 975	438 429	2	
		2002.. 708 724	122 726	585 998	26 403	29 374	530 221	X	
32791	Abrasive product manufacturing .....	2003.. 126 657	26 909	99 748	2 748	4 432	92 568	1	
		2002.. 112 694	15 932	96 762	3 164	5 415	88 183	X	
327910	Abrasive product manufacturing .....	2003.. 126 657	26 909	99 748	2 748	4 432	92 568	1	
		2002.. 112 694	15 932	96 762	3 164	5 415	88 183	X	
32799	All other nonmetallic mineral product manufacturing .....	2003.. 419 582	33 459	386 123	14 719	25 543	345 861	2	
		2002.. 596 030	106 794	489 236	23 239	23 959	442 038	X	
327991	Cut stone and stone product manufacturing .....	2003.. 78 856	11 336	67 519	6 513	5 052	55 955	5	
		2002.. 88 041	16 910	71 131	12 562	7 506	51 063	X	
327992	Ground or treated mineral and earth manufacturing .....	2003.. 79 540	5 750	73 790	1 512	1 684	70 595	9	
		2002.. 85 812	15 308	70 504	2 908	4 963	62 633	X	
327993	Mineral wool manufacturing .....	2003.. 209 649	11 112	198 537	2 120	11 848	184 569	3	
		2002.. 364 504	63 576	300 928	3 260	7 365	290 303	X	
327999	All other miscellaneous nonmetallic mineral product manufacturing .....	2003.. 51 536	5 260	46 276	4 574	6 959	34 743	2	
		2002.. 57 673	11 000	46 673	4 509	4 125	38 039	X	
331	Primary metal manufacturing .....	2003.. 3 399 342	402 074	2 997 268	41 669	121 894	2 833 705	1	
		2002.. 4 286 373	445 250	3 841 123	53 204	209 901	3 578 018	X	
3311	Iron and steel mills and ferroalloy manufacturing .....	2003.. 937 871	157 466	780 404	5 205	17 492	757 707	1	
		2002.. 1 340 914	92 260	1 248 654	7 236	23 038	1 218 380	X	
33111	Iron and steel mills and ferroalloy manufacturing .....	2003.. 937 871	157 466	780 404	5 205	17 492	757 707	1	
		2002.. 1 340 914	92 260	1 248 654	7 236	23 038	1 218 380	X	
33111M	Iron and steel mills and ferroalloy manufacturing .....	2003.. 937 871	157 466	780 404	5 205	17 492	757 707	1	
		2002.. 1 340 914	92 260	1 248 654	7 236	23 038	1 218 380	X	
3312	Steel product manufacturing from purchased steel .....	2003.. 421 778	54 184	367 594	5 817	19 191	342 586	1	
		2002.. 405 839	65 329	340 510	4 929	16 150	319 431	X	
33121	Iron and steel pipe and tube manufacturing from purchased steel .....	2003.. 232 804	28 084	204 720	2 141	6 986	195 592	1	
		2002.. 200 703	39 693	161 010	1 576	5 366	154 068	X	
331210	Iron and steel pipe and tube manufacturing from purchased steel .....	2003.. 232 804	28 084	204 720	2 141	6 986	195 592	1	
		2002.. 200 703	39 693	161 010	1 576	5 366	154 068	X	
33122	Rolling and drawing of purchased steel .....	2003.. 188 974	26 099	162 874	3 676	12 205	146 993	1	
		2002.. 205 136	25 636	179 500	3 353	10 784	165 363	X	
33122M	Rolling and drawing of purchased steel .....	2003.. 188 974	26 099	162 874	3 676	12 205	146 993	1	
		2002.. 205 136	25 636	179 500	3 353	10 784	165 363	X	
3313	Alumina and aluminum production and processing .....	2003.. 523 824	42 990	480 835	5 021	21 786	454 028	1	
		2002.. 711 620	79 069	632 551	10 126	91 443	530 982	X	
33131	Alumina and aluminum production and processing .....	2003.. 523 824	42 990	480 835	5 021	21 786	454 028	1	
		2002.. 711 620	79 069	632 551	10 126	91 443	530 982	X	
331311	Alumina refining .....	2003.. 20 108	D	D	D	D	D	1	
		2002.. 19 890	D	D	D	D	D	X	
331312	Primary aluminum production .....	2003.. 85 212	9 820	75 392	54	1 165	74 173	1	
		2002.. 150 599	18 586	132 013	2 510	2 324	127 179	X	
331314	Secondary smelting and alloying of aluminum .....	2003.. 55 743	D	D	D	D	D	4	
		2002.. 67 704	D	D	D	D	D	X	
331316	Aluminum extruded product manufacturing .....	2003.. 123 071	7 452	115 619	3 107	5 740	106 772	1	
		2002.. 153 498	18 260	135 238	2 773	4 673	127 792	X	
33131N	Aluminum rolling and drawing .....	2003.. 239 691	9 292	230 399	703	13 475	216 220	1	
		2002.. 319 929	24 417	295 512	3 658	80 351	211 503	X	
3314	Nonferrous metal (except aluminum) production and processing .....	2003.. 366 362	38 366	327 996	4 323	18 139	305 533	1	
		2002.. 660 646	86 774	573 872	7 000	31 102	535 770	X	
33141	Nonferrous metal (except aluminum) smelting and refining .....	2003.. 60 260	7 188	53 073	866	1 346	50 861	1	
		2002.. 225 877	29 137	196 740	567	2 540	193 633	X	
331411	Primary smelting and refining of copper .....	2003.. 4 843	D	D	D	D	D	1	
		2002.. D	D	D	D	D	D	X	
331419	Primary smelting and refining of nonferrous metal (except copper and aluminum) .....	2003.. 55 418	D	D	D	D	D	1	
		2002.. D	D	D	D	D	D	X	
33142	Copper rolling, drawing, extruding, and alloying .....	2003.. 134 747	20 124	114 623	878	11 917	101 828	1	
		2002.. 225 896	25 140	200 756	2 806	13 939	184 011	X	
33142M	Copper rolling, drawing, extruding, and alloying .....	2003.. 134 747	20 124	114 623	878	11 917	101 828	1	
		2002.. 225 896	25 140	200 756	2 806	13 939	184 011	X	

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				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures		
									A
331	Primary metal manufacturing—Con.								
3314	Nonferrous metal (except aluminum) production and processing—Con.								
33149	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying .....	2003... 171 355 2002... 208 873	11 055 32 497	160 300 176 376	2 580 3 627	4 876 14 623	152 844 158 126	1 X	
33149M	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying .....	2003... 171 355 2002... 208 873	11 055 32 497	160 300 176 376	2 580 3 627	4 876 14 623	152 844 158 126	1 X	
3315	Foundries .....	2003... 1 149 508 2002... 1 167 354	109 069 121 818	1 040 439 1 045 536	21 303 23 913	45 285 48 168	973 851 973 455	1 X	
33151	Ferrous metal foundries .....	2003... 791 984 2002... 778 190	71 001 73 153	720 983 705 037	12 325 15 443	30 703 31 597	677 955 657 997	1 X	
33151M	Ferrous metal foundries .....	2003... 791 984 2002... 778 190	71 001 73 153	720 983 705 037	12 325 15 443	30 703 31 597	677 955 657 997	1 X	
33152	Nonferrous metal foundries .....	2003... 357 524 2002... 389 164	38 068 48 665	319 456 340 499	8 978 8 470	14 582 16 571	295 896 315 458	1 X	
33152N	Aluminum foundries .....	2003... 269 676 2002... 288 632	30 095 36 940	239 582 251 692	6 366 6 058	9 553 11 181	223 663 234 453	1 X	
33152P	Foundries not aluminum .....	2003... 87 848 2002... 100 532	7 973 11 725	79 875 88 807	2 612 2 412	5 029 5 390	72 233 81 005	1 X	
332	Fabricated metal product manufacturing .....	2003... 7 067 305 2002... 7 978 862	904 291 1 150 695	6 163 014 6 828 167	365 361 360 696	640 803 646 238	5 156 851 5 821 233	1 X	
3321	Forging and stamping .....	2003... 673 021 2002... 772 153	66 928 93 489	606 092 678 664	20 978 20 599	44 368 45 466	540 746 612 599	1 X	
33211	Forging and stamping .....	2003... 673 021 2002... 772 153	66 928 93 489	606 092 678 664	20 978 20 599	44 368 45 466	540 746 612 599	1 X	
332114	Custom roll forming .....	2003... 122 723 2002... 105 165	16 565 17 475	106 158 87 690	4 367 3 873	5 802 4 628	95 988 79 189	1 X	
332117	Powder metallurgy parts manufacturing .....	2003... 76 000 2002... 62 080	6 487 2 943	69 513 59 137	1 162 804	2 681 1 852	65 670 56 481	1 X	
33211N	Forging .....	2003... 220 637 2002... 233 542	23 469 28 823	197 169 204 719	4 526 4 454	14 048 12 358	178 596 187 907	1 X	
33211P	Crown, closure, and metal stamping manufacturing .....	2003... 253 660 2002... 371 366	20 407 44 248	233 252 327 118	10 923 11 468	21 837 26 628	200 492 289 022	1 X	
3322	Cutlery and handtool manufacturing .....	2003... 270 918 2002... 305 788	32 920 47 358	237 998 258 430	8 292 7 134	33 642 24 024	196 064 227 272	1 X	
33221	Cutlery and hand tool manufacturing .....	2003... 270 918 2002... 305 788	32 920 47 358	237 998 258 430	8 292 7 134	33 642 24 024	196 064 227 272	1 X	
33221N	Cutlery, kitchen utensil, pot, and pan manufacturing .....	2003... 95 719 2002... 102 391	27 339 21 903	68 379 80 488	638 899	2 925 2 721	64 817 76 868	1 X	
33221P	Hand tool and saw blade manufacturing .....	2003... 175 199 2002... 203 397	5 581 25 455	169 618 177 942	7 654 6 235	30 718 21 303	131 247 150 404	1 X	
3323	Architectural and structural metals manufacturing .....	2003... 1 283 476 2002... 1 628 033	143 079 298 850	1 140 397 1 329 183	112 526 111 274	147 802 154 103	880 070 1 063 806	1 X	
33231	Plate work and fabricated structural product manufacturing .....	2003... 568 912 2002... 771 310	68 256 169 405	500 656 601 905	54 512 56 289	60 358 77 274	385 785 468 342	1 X	
33231M	Plate work and fabricated structural product manufacturing .....	2003... 568 912 2002... 771 310	68 256 169 405	500 656 601 905	54 512 56 289	60 358 77 274	385 785 468 342	1 X	
33232	Ornamental and architectural metal work manufacturing .....	2003... 714 564 2002... 856 723	74 823 129 445	639 742 727 278	58 014 54 985	87 443 76 829	494 285 595 464	1 X	
33232M	Ornamental and architectural metal work manufacturing .....	2003... 714 564 2002... 856 723	74 823 129 445	639 742 727 278	58 014 54 985	87 443 76 829	494 285 595 464	1 X	
3324	Boiler, tank, and shipping container manufacturing .....	2003... 505 213 2002... 535 547	79 785 65 124	425 428 470 423	16 572 20 142	45 733 34 703	363 122 415 578	1 X	
33241	Power boiler and heat exchanger manufacturing .....	2003... 124 934 2002... 115 082	19 794 20 803	105 141 94 279	7 590 5 243	20 665 17 008	76 886 72 028	1 X	
332410	Power boiler and heat exchanger manufacturing .....	2003... 124 934 2002... 115 082	19 794 20 803	105 141 94 279	7 590 5 243	20 665 17 008	76 886 72 028	1 X	
33242	Metal tank (heavy gauge) manufacturing .....	2003... 58 786 2002... 105 408	5 054 16 062	53 733 89 346	3 951 8 884	6 847 9 761	42 934 70 701	1 X	
332420	Metal tank (heavy gauge) manufacturing .....	2003... 58 786 2002... 105 408	5 054 16 062	53 733 89 346	3 951 8 884	6 847 9 761	42 934 70 701	1 X	
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	2003... 321 493 2002... 315 057	54 938 28 259	266 555 286 798	5 032 6 015	18 221 7 934	243 302 272 849	1 X	
33243M	Metal can, box, and other metal container (light gauge) manufacturing .....	2003... 321 493 2002... 315 057	54 938 28 259	266 555 286 798	5 032 6 015	18 221 7 934	243 302 272 849	1 X	
3325	Hardware manufacturing .....	2003... 232 889 2002... 264 211	37 348 42 298	195 540 221 913	7 079 6 324	16 099 19 103	172 362 196 486	1 X	
33251	Hardware manufacturing .....	2003... 232 889 2002... 264 211	37 348 42 298	195 540 221 913	7 079 6 324	16 099 19 103	172 362 196 486	1 X	
332510	Hardware manufacturing .....	2003... 232 889 2002... 264 211	37 348 42 298	195 540 221 913	7 079 6 324	16 099 19 103	172 362 196 486	1 X	

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				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures						
									A	B	C	D	E
332	Fabricated metal product manufacturing—Con.												
3326	Spring and wire product manufacturing .....	2003.. 253 761	55 251	198 510	11 748	18 289	168 473	1					
	2002.. 261 998	29 239	232 759	15 155	17 862	199 742	X						
33261	Spring and wire product manufacturing .....	2003.. 253 761	55 251	198 510	11 748	18 289	168 473	1					
33261M	Spring and wire product manufacturing .....	2002.. 261 998	29 239	232 759	15 155	17 862	199 742	X					
	2003.. 253 761	55 251	198 510	11 748	18 289	168 473	1						
	2002.. 261 998	29 239	232 759	15 155	17 862	199 742	X						
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	2003.. 1 881 073	221 956	1 659 117	117 888	184 436	1 356 793	1					
	2002.. 2 059 891	291 952	1 767 939	91 473	184 198	1 492 268	X						
33271	Machine shops .....	2003.. 1 132 577	112 805	1 019 772	65 605	110 169	843 997	1					
332710	Machine shops .....	2002.. 1 221 551	168 318	1 053 233	64 566	116 302	872 365	X					
	2003.. 1 132 577	112 805	1 019 772	65 605	110 169	843 997	1						
	2002.. 1 221 551	168 318	1 053 233	64 566	116 302	872 365	X						
33272	Turned product and screw, nut, and bolt manufacturing ....	2003.. 748 496	109 151	639 345	52 282	74 267	512 796	1					
332721	Precision turned product manufacturing .....	2002.. 838 340	123 634	714 706	26 907	67 896	619 903	X					
	2003.. 440 662	57 466	383 196	26 832	53 254	303 110	1						
332722	Bolt, nut, screw, rivet, and washer manufacturing .....	2002.. 531 246	72 023	459 223	19 115	45 507	394 601	X					
	2003.. 307 834	51 686	256 149	25 450	21 013	209 685	2						
	2002.. 307 094	51 611	255 483	7 792	22 389	225 302	X						
3328	Coating, engraving, heat treating, and allied activities .....	2003.. 643 302	59 127	584 175	28 811	34 444	520 920	1					
	2002.. 685 752	73 472	612 280	33 116	44 168	534 996	X						
33281	Coating, engraving, heat treating, and allied activities .....	2003.. 643 302	59 127	584 175	28 811	34 444	520 920	1					
33281M	Coating, engraving, heat treating, and allied activities .....	2002.. 685 752	73 472	612 280	33 116	44 168	534 996	X					
	2003.. 643 302	59 127	584 175	28 811	34 444	520 920	1						
	2002.. 685 752	73 472	612 280	33 116	44 168	534 996	X						
3329	Other fabricated metal product manufacturing .....	2003.. 1 323 653	207 896	1 115 757	41 467	115 989	958 302	1					
	2002.. 1 465 489	208 913	1 256 576	55 479	122 611	1 078 887	X						
33291	Metal valve manufacturing .....	2003.. 487 298	57 909	429 389	51 184	52 118	365 886	1					
332913	Plumbing fixture fitting and trim manufacturing .....	2002.. 556 314	81 081	475 233	17 166	54 612	403 455	X					
	2003.. 60 161	10 998	49 163	941	8 869	39 354	1						
33291N	Valve and fitting (except plumbing) manufacturing .....	2002.. 67 559	11 926	55 633	1 793	4 628	49 212	X					
	2003.. 427 136	46 911	380 226	10 443	43 249	326 534	1						
	2002.. 488 755	69 155	419 600	15 373	49 984	354 243	X						
33299	All other fabricated metal product manufacturing .....	2003.. 836 356	149 987	686 368	30 083	63 871	592 414	1					
332991	Ball and roller bearing manufacturing .....	2002.. 909 175	127 833	781 343	38 313	67 999	675 031	X					
	2003.. 237 750	50 640	187 110	674	7 632	178 805	1						
332992	Small arms ammunition manufacturing .....	2002.. 210 675	10 872	199 803	1 413	7 195	191 195	X					
	2003.. 19 299	D	D	D	D	D	D						
332993	Ammunition (except small arms) manufacturing .....	2002.. 16 827	1 181	15 646	253	1 057	14 336	X					
	2003.. 18 260	3 793	14 467	529	804	13 135	1						
332994	Small arms manufacturing .....	2002.. 26 293	6 109	20 184	475	1 824	17 885	X					
	2003.. 56 008	26 025	29 983	920	2 501	26 562	1						
332995	Other ordnance and accessories manufacturing .....	2002.. 49 209	16 135	33 074	978	4 093	28 003	X					
	2003.. 23 895	D	D	D	D	D	D						
332996	Fabricated pipe and pipe fitting manufacturing .....	2002.. 18 272	3 313	14 959	512	3 693	10 754	X					
	2003.. 100 549	9 233	91 317	5 860	7 372	78 084	1						
33299N	Other fabricated metal products manufacturing .....	2002.. 100 566	11 082	89 484	4 984	5 798	78 702	X					
	2003.. 380 594	57 333	323 262	21 552	33 443	268 266	1						
	2002.. 487 333	79 140	408 193	29 698	44 339	334 156	X						
333	Machinery manufacturing .....	2003.. 5 408 170	780 517	4 627 654	186 064	585 194	3 856 396	1					
	2002.. 6 693 661	1 093 764	5 599 897	242 240	646 628	4 711 029	X						
3331	Agriculture, construction, and mining machinery manufacturing .....	2003.. 865 900	115 886	750 014	42 871	73 941	633 202	1					
	2002.. 1 106 783	171 804	934 979	37 826	96 978	800 175	X						
33311	Agricultural implement manufacturing .....	2003.. 468 578	73 079	395 499	26 047	35 853	333 599	1					
333111	Farm machinery and equipment manufacturing .....	2002.. 516 951	60 008	456 943	15 564	37 548	403 831	X					
	2003.. 321 861	62 549	259 311	25 678	28 102	205 531	2						
333112	Lawn and garden tractor and home lawn and garden equipment manufacturing .....	2002.. 343 067	49 834	293 233	13 085	30 100	250 048	X					
	2003.. 146 718	10 530	136 188	369	7 751	128 068	1						
	2002.. 173 884	10 174	163 710	2 479	7 448	153 783	X						
33312	Construction machinery manufacturing .....	2003.. 206 309	19 291	187 018	10 974	23 374	152 670	1					
333120	Construction machinery manufacturing .....	2002.. 363 862	75 292	288 570	10 592	32 502	245 476	X					
	2003.. 206 309	19 291	187 018	10 974	23 374	152 670	1						
	2002.. 363 862	75 292	288 570	10 592	32 502	245 476	X						
33313	Mining and oil and gas field machinery manufacturing .....	2003.. 191 013	23 516	167 496	5 850	14 714	146 933	1					
33313M	Mining and oil and gas field machinery manufacturing .....	2002.. 225 970	36 504	189 466	11 670	26 928	150 868	X					
	2003.. 191 013	23 516	167 496	5 850	14 714	146 933	1						
	2002.. 225 970	36 504	189 466	11 670	26 928	150 868	X						
3332	Industrial machinery manufacturing .....	2003.. 714 845	143 352	571 493	23 400	94 620	453 474	1					
	2002.. 975 343	262 463	712 880	27 637	123 765	561 478	X						
33321	Sawmill and woodworking machinery manufacturing .....	2003.. 21 263	517	20 746	823	2 750	17 173	1					
333210	Sawmill and woodworking machinery manufacturing .....	2002.. 25 717	2 373	23 344	3 379	5 320	14 645	X					
	2003.. 21 263	517	20 746	823	2 750	17 173	1						
	2002.. 25 717	2 373	23 344	3 379	5 320	14 645	X						
33322	Plastics and rubber industry machinery manufacturing .....	2003.. 37 872	1 715	36 157	995	5 764	29 398	1					
333220	Plastics and rubber industry machinery manufacturing .....	2002.. 63 457	8 294	55 163	1 866	7 835	45 462	X					
	2003.. 37 872	1 715	36 157	995	5 764	29 398	1						
	2002.. 63 457	8 294	55 163	1 866	7 835	45 462	X						

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				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures		
									A
333	Machinery manufacturing—Con.								
3332	Industrial machinery manufacturing—Con.								
33329	Other industrial machinery manufacturing .....	2003.. 655 710	141 120	514 590	21 582	86 106	406 902	1	
		2002.. 886 169	251 796	634 373	22 392	110 610	501 371	X	
333295	Semiconductor machinery manufacturing .....	2003.. 358 562	100 020	258 543	5 592	39 567	213 384	1	
		2002.. 458 564	179 317	279 247	2 748	53 485	223 014	X	
33329N	Other machinery manufacturing .....	2003.. 297 148	41 100	256 048	15 990	46 539	193 519	1	
		2002.. 427 605	72 479	355 126	19 644	57 125	278 357	X	
3333	Commercial and service industry machinery manufacturing .....	2003.. 507 457	86 490	420 967	34 156	95 412	291 400	1	
		2002.. 611 239	117 891	493 348	19 362	85 286	388 700	X	
33331	Commercial and service industry machinery manufacturing .....	2003.. 507 457	86 490	420 967	34 156	95 412	291 400	1	
		2002.. 611 239	117 891	493 348	19 362	85 286	388 700	X	
333313	Office machinery manufacturing .....	2003.. 68 872	D	D	D	40 286	18 810	1	
		2002.. 59 827	11 621	48 206	1 413	19 838	26 955	X	
333314	Optical instrument and lens manufacturing .....	2003.. 102 596	8 067	94 529	2 057	13 118	79 353	1	
		2002.. 132 456	36 849	95 607	3 538	11 945	80 124	X	
333315	Photographic and photocopying equipment manufacturing .....	2003.. 14 069	D	D	D	2 258	8 251	1	
		2002.. 88 982	14 283	74 699	884	5 729	68 086	X	
33331N	All other commercial and service industry machinery manufacturing .....	2003.. 321 920	70 974	250 947	26 212	39 749	184 985	1	
		2002.. 329 974	55 138	274 836	13 527	47 774	213 535	X	
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	2003.. 465 265	55 654	409 611	9 822	37 476	362 313	1	
		2002.. 633 964	95 258	538 706	14 492	37 821	486 393	X	
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing .....	2003.. 465 265	55 654	409 611	9 822	37 476	362 313	1	
		2002.. 633 964	95 258	538 706	14 492	37 821	486 393	X	
333414	Heating equipment (except warm air furnaces) manufacturing .....	2003.. 77 715	13 923	63 792	2 087	8 427	53 278	1	
		2002.. 89 156	18 922	70 234	2 604	6 290	61 340	X	
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing .....	2003.. 327 909	33 319	294 591	4 549	21 556	268 485	1	
		2002.. 449 530	60 301	389 229	7 474	20 496	361 259	X	
33341N	Ventilation equipment manufacturing .....	2003.. 59 641	8 413	51 228	3 186	7 492	40 549	1	
		2002.. 95 278	16 035	79 243	4 414	11 035	63 794	X	
3335	Metalworking machinery manufacturing .....	2003.. 708 331	99 647	608 684	26 360	84 986	497 338	1	
		2002.. 908 613	102 374	806 239	49 441	95 498	661 300	X	
33351	Metalworking machinery manufacturing .....	2003.. 708 331	99 647	608 684	26 360	84 986	497 338	1	
		2002.. 908 613	102 374	806 239	49 441	95 498	661 300	X	
333511	Industrial mold manufacturing .....	2003.. 176 624	27 779	148 845	8 570	20 841	119 433	1	
		2002.. 271 083	25 771	245 312	11 838	27 864	205 610	X	
333512	Machine tool (metal cutting types) manufacturing .....	2003.. 50 537	7 281	43 256	1 201	7 288	34 767	1	
		2002.. 65 449	9 231	56 218	3 163	8 615	44 440	X	
333513	Machine tool (metal forming types) manufacturing .....	2003.. 13 608	776	12 832	D	D	9 217	3	
		2002.. 28 738	4 287	24 451	2 362	3 183	18 906	X	
333514	Special die and tool, die set, jig, and fixture manufacturing .....	2003.. 191 152	19 657	171 495	9 149	27 912	134 433	1	
		2002.. 267 747	34 208	233 539	22 773	32 260	178 506	X	
333515	Cutting tool and machine tool accessory manufacturing .....	2003.. 236 657	35 108	201 549	4 777	18 532	178 241	1	
		2002.. 197 571	19 089	178 482	5 946	13 146	159 390	X	
333516	Rolling mill machinery and equipment manufacturing .....	2003.. 12 307	654	11 653	D	D	9 952	1	
		2002.. 17 780	1 601	16 179	404	900	14 875	X	
333518	Other metalworking machinery manufacturing .....	2003.. 27 446	8 391	19 055	1 614	6 146	11 295	1	
		2002.. 60 245	8 187	52 058	2 955	9 530	39 573	X	
3336	Engine, turbine, and power transmission equipment manufacturing .....	2003.. 972 868	50 533	922 335	8 361	48 792	865 182	1	
		2002.. 1 076 162	88 181	987 981	35 114	39 606	913 261	X	
33361	Engine, turbine, and power transmission equipment manufacturing .....	2003.. 972 868	50 533	922 335	8 361	48 792	865 182	1	
		2002.. 1 076 162	88 181	987 981	35 114	39 606	913 261	X	
333611	Turbine and turbine generator set unit manufacturing .....	2003.. 209 727	4 611	205 116	D	D	182 186	1	
		2002.. 202 739	17 161	185 578	1 816	4 695	179 067	X	
333612	Speed changer, industrial high-speed drive, and gear manufacturing .....	2003.. 39 884	3 014	36 871	960	2 022	33 889	1	
		2002.. 59 519	6 661	52 858	808	2 975	49 075	X	
333613	Mechanical power transmission equipment manufacturing .....	2003.. 98 483	3 870	94 613	D	D	89 383	1	
		2002.. 85 529	6 377	79 152	852	5 294	73 006	X	
333618	Other engine equipment manufacturing .....	2003.. 624 775	39 039	585 736	1 135	24 876	559 725	1	
		2002.. 728 375	57 982	670 393	31 638	26 642	612 113	X	
3339	Other general purpose machinery manufacturing .....	2003.. 1 173 503	228 954	944 549	41 093	149 968	753 488	1	
		2002.. 1 381 557	255 793	1 125 764	58 368	167 674	899 722	X	
33391	Pump and compressor manufacturing .....	2003.. 254 094	54 004	200 089	7 692	28 649	163 748	1	
		2002.. 246 662	41 503	205 159	11 279	31 507	162 373	X	
333911	Pump and pumping equipment manufacturing .....	2003.. 140 236	17 006	123 230	4 725	14 343	104 162	1	
		2002.. 148 593	23 276	125 317	7 201	18 605	99 511	X	
333912	Air and gas compressor manufacturing .....	2003.. 103 824	36 933	66 891	2 195	12 889	51 807	1	
		2002.. 84 018	13 659	70 359	3 174	10 415	56 770	X	
333913	Measuring and dispensing pump manufacturing .....	2003.. 10 033	65	9 968	772	1 417	7 779	1	
		2002.. 14 051	4 568	9 483	904	2 487	6 092	X	

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				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures			
									A	B
333	Machinery manufacturing—Con.									
3339	Other general purpose machinery manufacturing—Con.									
33392	Material handling equipment manufacturing .....	2003.. 294 166	35 940	258 226	16 538	45 205	196 483	1		
		2002.. 354 753	85 077	269 676	20 481	62 153	187 042	X		
33392M	Material handling equipment manufacturing .....	2003.. 294 166	35 940	258 226	16 538	45 205	196 483	1		
		2002.. 354 753	85 077	269 676	20 481	62 153	187 042	X		
33399	All other general purpose machinery manufacturing .....	2003.. 625 244	139 010	486 234	16 863	76 114	393 257	1		
		2002.. 780 142	129 213	650 929	26 608	74 014	550 307	X		
333991	Power-driven hand tool manufacturing .....	2003.. 67 807	D	D	D	2 391	40 639	1		
		2002.. 59 367	3 243	56 124	609	4 184	51 331	X		
333993	Packaging machinery manufacturing .....	2003.. 54 871	D	D	D	15 229	32 736	2		
		2002.. 81 672	14 684	66 988	4 977	14 132	47 879	X		
333994	Industrial process furnace and oven manufacturing .....	2003.. 24 812	5 420	19 392	1 867	5 080	12 445	1		
		2002.. 37 182	7 872	29 310	1 756	4 542	23 012	X		
33399N	Fluid power equipment manufacturing .....	2003.. 127 641	6 067	121 574	3 039	8 226	110 309	1		
		2002.. 202 019	35 417	166 602	2 678	14 755	149 169	X		
33399P	All other miscellaneous general purpose machinery manufacturing .....	2003.. 350 113	99 225	250 887	8 572	45 187	197 128	1		
		2002.. 399 902	67 997	331 905	16 588	36 401	278 916	X		
334	Computer and electronic product manufacturing .....	2003.. 12 571 612	1 971 433	10 600 179	119 576	1 706 421	8 774 181	1		
		2002.. 13 671 651	2 547 836	11 123 815	230 932	1 331 393	9 561 490	X		
3341	Computer and peripheral equipment manufacturing .....	2003.. 1 974 291	513 405	1 460 886	26 977	141 079	1 292 831	1		
		2002.. 2 401 625	621 093	1 780 532	63 658	257 239	1 459 635	X		
33411	Computer and peripheral equipment manufacturing .....	2003.. 1 974 291	513 405	1 460 886	26 977	141 079	1 292 831	1		
		2002.. 2 401 625	621 093	1 780 532	63 658	257 239	1 459 635	X		
334111	Electronic computer manufacturing .....	2003.. 1 157 249	442 836	714 413	18 328	65 162	630 923	1		
		2002.. 1 320 172	455 433	864 739	44 253	107 356	713 130	X		
334112	Computer storage device manufacturing .....	2003.. 450 260	23 420	426 840	5 818	22 434	398 588	1		
		2002.. 485 663	37 654	448 009	5 177	61 156	381 676	X		
334113	Computer terminal manufacturing .....	2003.. 13 559	1 248	12 311	235	2 376	9 701	1		
		2002.. 14 993	1 029	13 964	426	6 124	7 414	X		
334119	Other computer peripheral equipment manufacturing .....	2003.. 353 224	45 902	307 322	2 596	51 107	253 620	1		
		2002.. 580 797	126 977	453 820	13 802	82 603	357 415	X		
3342	Communications equipment manufacturing .....	2003.. 1 494 777	293 214	1 201 563	16 185	317 095	868 283	1		
		2002.. 1 656 900	403 940	1 252 960	35 020	218 149	999 791	X		
33421	Telephone apparatus manufacturing .....	2003.. 590 535	125 010	465 525	6 375	153 169	305 981	1		
		2002.. 672 294	137 031	535 263	17 368	96 673	421 222	X		
334210	Telephone apparatus manufacturing .....	2003.. 590 535	125 010	465 525	6 375	153 169	305 981	1		
		2002.. 672 294	137 031	535 263	17 368	96 673	421 222	X		
33422	Radio and television broadcasting and wireless communications equipment manufacturing .....	2003.. 831 197	163 875	667 322	7 781	148 742	510 798	1		
		2002.. 883 629	255 257	628 372	11 029	105 299	512 044	X		
334220	Radio and television broadcasting and wireless communications equipment manufacturing .....	2003.. 831 197	163 875	667 322	7 781	148 742	510 798	1		
		2002.. 883 629	255 257	628 372	11 029	105 299	512 044	X		
33429	Other communications equipment manufacturing .....	2003.. 73 046	4 329	68 716	2 029	15 184	51 504	1		
		2002.. 100 977	11 652	89 325	6 623	16 177	66 525	X		
334290	Other communications equipment manufacturing .....	2003.. 73 046	4 329	68 716	2 029	15 184	51 504	1		
		2002.. 100 977	11 652	89 325	6 623	16 177	66 525	X		
3343	Audio and video equipment manufacturing .....	2003.. 133 611	7 223	126 388	3 401	17 049	105 939	1		
		2002.. 147 569	28 504	119 065	4 020	18 296	96 749	X		
33431	Audio and video equipment manufacturing .....	2003.. 133 611	7 223	126 388	3 401	17 049	105 939	1		
		2002.. 147 569	28 504	119 065	4 020	18 296	96 749	X		
334310	Audio and video equipment manufacturing .....	2003.. 133 611	7 223	126 388	3 401	17 049	105 939	1		
		2002.. 147 569	28 504	119 065	4 020	18 296	96 749	X		
3344	Semiconductor and other electronic component manufacturing .....	2003.. 5 662 041	458 813	5 203 227	40 320	771 155	4 391 752	1		
		2002.. 6 392 824	926 397	5 466 427	67 704	492 447	4 906 276	X		
33441	Semiconductor and other electronic component manufacturing .....	2003.. 5 662 041	458 813	5 203 227	40 320	771 155	4 391 752	1		
		2002.. 6 392 824	926 397	5 466 427	67 704	492 447	4 906 276	X		
334411	Electron tube manufacturing .....	2003.. 41 360	8 566	32 794	90	1 268	31 436	1		
		2002.. 40 984	6 276	34 708	303	1 661	32 744	X		
334412	Bare printed circuit board manufacturing .....	2003.. 129 108	16 955	112 153	1 317	10 988	99 848	1		
		2002.. 222 680	23 615	199 065	9 913	19 171	169 981	X		
334413	Semiconductor and related device manufacturing .....	2003.. 4 413 164	282 696	4 130 469	16 461	568 407	3 545 601	1		
		2002.. 4 783 315	692 112	4 091 203	26 300	224 157	3 840 746	X		
334414	Electronic capacitor manufacturing .....	2003.. 98 747	6 667	92 081	906	4 533	86 642	1		
		2002.. 125 137	18 132	107 005	4 637	9 593	92 775	X		
334415	Electronic resistor manufacturing .....	2003.. 43 220	D	D	D	1 916	24 810	1		
		2002.. 29 320	7 669	21 651	1 049	2 782	17 820	X		
334416	Electronic coil, transformer, and other inductor manufacturing .....	2003.. 10 659	754	9 905	509	1 411	7 986	6		
		2002.. 26 572	1 774	24 798	706	1 602	22 490	X		
334417	Electronic connector manufacturing .....	2003.. 134 973	D	D	D	8 418	117 554	1		
		2002.. 144 720	7 378	137 342	2 160	9 002	126 180	X		
334418	Printed circuit assembly (electronic assembly) manufacturing .....	2003.. 409 505	73 020	336 485	3 086	117 747	215 653	1		
		2002.. 599 714	73 351	526 363	10 940	176 629	338 794	X		
334419	Other electronic component manufacturing .....	2003.. 381 303	50 572	330 732	12 041	56 468	262 223	1		
		2002.. 420 382	96 090	324 292	11 696	47 850	264 746	X		

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				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures					
									A	B	C	D
334	Computer and electronic product manufacturing—Con.											
3345	Navigational, measuring, electromedical, and control instruments manufacturing	2003.. 2 937 356 2002.. 2 662 306	679 440 532 966	2 257 916 2 129 340	27 761 55 522	431 564 324 936	1 798 591 1 748 882	1 X				
33451	Navigational, measuring, medical, and control instruments manufacturing	2003.. 2 937 356 2002.. 2 662 306	679 440 532 966	2 257 916 2 129 340	27 761 55 522	431 564 324 936	1 798 591 1 748 882	1 X				
334510	Electromedical and electrotherapeutic apparatus manufacturing	2003.. 370 621 2002.. 470 512	141 388 79 471	229 232 391 041	3 292 7 223	42 271 79 450	183 669 304 368	1 X				
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing	2003.. 1 291 287 2002.. 934 650	380 987 172 513	910 300 762 137	4 034 18 625	226 888 101 346	679 378 642 166	1 X				
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use	2003.. 53 080 2002.. 61 475	2 926 5 503	50 154 55 972	221 2 272	4 668 6 280	45 265 47 420	1 X				
334513	Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables	2003.. 97 816 2002.. 168 555	11 611 27 277	86 205 141 278	3 170 6 194	20 720 30 433	62 315 104 651	1 X				
334514	Totalizing fluid meter and counting device manufacturing	2003.. 69 278 2002.. 90 442	7 878 7 228	61 400 83 214	367 2 527	7 377 6 440	53 657 74 247	1 X				
334515	Instrument manufacturing for measuring and testing electricity and electrical signals	2003.. 511 642 2002.. 470 119	35 607 146 136	476 035 323 983	8 016 6 308	53 428 30 516	414 590 287 159	1 X				
334516	Analytical laboratory instrument manufacturing	2003.. 370 369 2002.. 237 739	68 858 54 330	301 511 183 409	4 475 4 481	44 856 29 457	252 180 149 471	1 X				
334517	Irradiation apparatus manufacturing	2003.. 58 935 2002.. 92 737	15 694 16 461	43 240 76 276	214 1 991	12 663 15 288	30 363 58 997	1 X				
334518	Watch, clock, and parts manufacturing	2003.. 4 389 2002.. 9 421	666 1 183	3 723 8 238	357 651	585 1 552	2 781 6 035	1 X				
334519	Other measuring and controlling device manufacturing	2003.. 109 938 2002.. 126 656	13 824 22 864	96 114 103 792	3 615 5 250	18 107 24 174	74 392 74 368	1 X				
3346	Manufacturing and reproducing magnetic and optical media	2003.. 369 536 2002.. 410 427	19 338 34 936	350 198 375 491	4 933 5 008	28 481 20 326	316 785 350 157	1 X				
33461	Manufacturing and reproducing magnetic and optical media	2003.. 369 536 2002.. 410 427	19 338 34 936	350 198 375 491	4 933 5 008	28 481 20 326	316 785 350 157	1 X				
334611	Software reproducing	2003.. 11 573 2002.. 18 248	1 120 2 966	10 453 15 282	407 1 045	4 163 2 989	5 883 11 248	12 X				
334612	Prerecorded compact disc (except software), tape, and record reproducing	2003.. 255 126 2002.. 254 964	3 628 14 460	251 498 240 504	4 377 3 323	20 120 13 461	227 000 223 720	1 X				
334613	Magnetic and optical recording media manufacturing	2003.. 102 836 2002.. 137 215	14 589 17 510	88 247 119 705	149 640	4 197 3 876	83 901 115 189	1 X				
335	Electrical equipment, appliance, and component manufacturing	2003.. 2 244 023 2002.. 2 699 261	211 871 401 381	2 032 151 2 297 880	33 725 47 128	183 182 209 251	1 815 244 2 041 501	1 X				
3351	Electric lighting equipment manufacturing	2003.. 205 348 2002.. 276 416	19 579 45 870	185 769 230 546	4 742 6 925	26 372 37 053	154 655 186 568	3 X				
33511	Electric lamp bulb and parts manufacturing	2003.. 53 480 2002.. 76 934	1 089 8 861	52 391 68 073	— 1 676	3 226 3 917	49 165 62 480	1 X				
335110	Electric lamp bulb and parts manufacturing	2003.. 53 480 2002.. 76 934	1 089 8 861	52 391 68 073	— 1 676	3 226 3 917	49 165 62 480	1 X				
33512	Lighting fixture manufacturing	2003.. 151 868 2002.. 199 482	18 490 37 009	133 378 162 473	4 742 5 249	23 146 33 136	105 490 124 088	4 X				
33512M	Lighting fixture manufacturing	2003.. 151 868 2002.. 199 482	18 490 37 009	133 378 162 473	4 742 5 249	23 146 33 136	105 490 124 088	4 X				
3352	Household appliance manufacturing	2003.. 635 038 2002.. 604 247	53 877 73 857	581 161 530 390	1 481 2 401	12 772 23 288	566 909 504 701	1 X				
33521	Small electrical appliance manufacturing	2003.. 92 362 2002.. 123 960	27 131 12 902	65 231 111 058	571 1 057	4 312 9 132	60 348 100 869	1 X				
33521M	Small electrical appliance manufacturing	2003.. 92 362 2002.. 123 960	27 131 12 902	65 231 111 058	571 1 057	4 312 9 132	60 348 100 869	1 X				
33522	Major appliance manufacturing	2003.. 542 676 2002.. 480 287	26 746 60 955	515 930 419 332	910 1 344	8 460 14 156	506 561 403 832	1 X				
335221	Household cooking appliance manufacturing	2003.. 143 242 2002.. 115 654	9 253 18 889	133 989 96 765	350 623	2 632 4 057	131 007 92 085	1 X				
335222	Household refrigerator and home freezer manufacturing	2003.. 132 691 2002.. 155 257	3 480 8 674	129 211 146 583	D D	D D	127 575 144 131	1 X				
335224	Household laundry equipment manufacturing	2003.. 72 294 2002.. 80 392	5 101 9 018	67 193 71 374	— D	D D	D 70 357	D X				
335228	Other major household appliance manufacturing	2003.. 194 449 2002.. 128 984	8 912 24 374	185 537 104 610	D 293	3 755 7 058	D 97 259	D X				
3353	Electrical equipment manufacturing	2003.. 418 715 2002.. 669 370	42 824 99 665	375 891 569 705	9 010 15 726	43 733 58 695	323 149 495 284	1 X				

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									A	B	C	D
335	Electrical equipment, appliance, and component manufacturing—Con.											
3353	Electrical equipment manufacturing—Con.											
33531	Electrical equipment manufacturing .....	418 715	42 824	375 891	9 010	43 733	323 149	1				
	2002..	669 370	99 665	569 705	15 726	58 695	495 284	X				
335311	Power, distribution, and specialty transformer manufacturing .....	32 819	3 230	29 589	1 128	3 836	24 626	1				
	2002..	78 483	14 114	64 369	2 042	4 726	57 601	X				
335312	Motor and generator manufacturing .....	151 411	9 146	142 265	3 088	6 419	132 759	1				
	2002..	216 814	23 112	193 702	4 890	13 208	175 604	X				
335313	Switchgear and switchboard apparatus manufacturing ...	109 905	5 270	104 635	2 658	15 358	86 619	1				
	2002..	181 180	31 149	150 031	3 738	14 302	131 991	X				
335314	Relay and industrial control manufacturing .....	124 580	25 178	99 401	2 136	18 120	79 146	1				
	2002..	192 893	31 290	161 603	5 056	26 459	130 088	X				
3359	Other electrical equipment and component manufacturing....	984 922	95 592	889 330	18 493	100 306	770 531	1				
	2002..	1 149 228	181 989	967 239	22 076	90 215	854 948	X				
33591	Battery manufacturing .....	189 143	7 770	181 373	678	10 548	170 147	1				
	2002..	170 000	25 685	144 315	1 812	5 443	137 060	X				
335911	Storage battery manufacturing .....	133 314	3 013	130 301	607	8 861	120 833	1				
	2002..	86 639	15 386	71 253	1 671	2 708	66 874	X				
335912	Primary battery manufacturing .....	55 829	4 757	51 072	71	1 687	49 314	1				
	2002..	83 361	10 299	73 062	141	2 735	70 186	X				
33592	Communication and energy wire and cable manufacturing .....	223 666	11 006	212 660	3 676	16 288	192 696	1				
	2002..	310 812	55 201	255 611	7 964	19 815	227 832	X				
33592M	Communication and energy wire and cable manufacturing .....	223 666	11 006	212 660	3 676	16 288	192 696	1				
	2002..	310 812	55 201	255 611	7 964	19 815	227 832	X				
33593	Wiring device manufacturing .....	198 915	14 574	184 341	4 563	18 859	160 918	1				
	2002..	290 142	35 757	254 385	5 348	27 378	221 659	X				
33593M	Wiring device manufacturing .....	198 915	14 574	184 341	4 563	18 859	160 918	1				
	2002..	290 142	35 757	254 385	5 348	27 378	221 659	X				
33599	All other electrical equipment and component manufacturing .....	373 198	62 242	310 955	9 576	54 611	246 769	1				
	2002..	378 274	65 346	312 928	6 952	37 579	268 397	X				
335991	Carbon and graphite product manufacturing .....	51 394	5 690	45 704	662	2 063	42 980	1				
	2002..	100 360	11 436	88 924	592	2 109	86 223	X				
335999	All other miscellaneous electrical equipment and component manufacturing .....	321 804	56 552	265 251	8 915	52 548	203 789	1				
	2002..	277 914	53 910	224 004	6 360	35 470	182 174	X				
336	Transportation equipment manufacturing .....	16 126 317	2 055 280	14 071 038	281 558	1 129 347	12 660 132	1				
	2002..	16 650 122	2 593 438	14 056 684	451 327	780 132	12 825 225	X				
3361	Motor vehicle manufacturing .....	5 186 479	594 008	4 592 471	67 727	357 050	4 167 694	1				
	2002..	4 801 947	817 547	3 984 400	D	150 670	D	X				
33611	Automobile and light duty motor vehicle manufacturing ...	5 021 952	577 441	4 444 511	67 134	347 767	4 029 610	1				
	2002..	4 643 558	781 792	3 861 766	D	134 066	D	X				
336111	Automobile manufacturing .....	2 140 086	130 288	2 009 798	D	169 007	D	1				
	2002..	2 051 998	323 524	1 728 474	D	75 390	D	X				
336112	Light truck and utility vehicle manufacturing .....	2 881 866	447 153	2 434 713	D	178 760	D	1				
	2002..	2 591 560	458 268	2 133 292	D	58 676	D	X				
33612	Heavy duty truck manufacturing .....	164 527	16 567	147 960	593	9 283	138 084	1				
	2002..	158 389	35 755	122 634	D	16 604	D	X				
336120	Heavy duty truck manufacturing .....	164 527	16 567	147 960	593	9 283	138 084	1				
	2002..	158 389	35 755	122 634	D	16 604	D	X				
3362	Motor vehicle body and trailer manufacturing .....	387 661	116 309	271 352	31 073	33 524	206 755	1				
	2002..	327 771	91 331	236 440	19 935	25 952	190 553	X				
33621	Motor vehicle body and trailer manufacturing .....	387 661	116 309	271 352	31 073	33 524	206 755	1				
	2002..	327 771	91 331	236 440	19 935	25 952	190 553	X				
336211	Motor vehicle body manufacturing .....	177 231	49 310	127 922	10 134	16 745	101 043	1				
	2002..	149 630	41 857	107 773	5 726	12 512	89 535	X				
336212	Truck trailer manufacturing .....	61 622	7 892	53 730	9 754	3 518	40 458	1				
	2002..	53 420	11 853	41 567	4 325	3 288	33 954	X				
336213	Motor home manufacturing .....	56 082	19 665	36 417	2 959	6 660	26 798	1				
	2002..	50 980	18 636	32 344	2 511	3 664	26 169	X				
336214	Travel trailer and camper manufacturing .....	92 725	39 443	53 283	8 226	6 602	38 455	2				
	2002..	73 741	18 985	54 756	7 373	6 488	40 895	X				
3363	Motor vehicle parts manufacturing .....	7 374 386	659 019	6 715 368	101 307	459 322	6 154 738	1				
	2002..	7 550 280	837 054	6 713 226	84 178	245 550	6 383 498	X				
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	1 139 920	167 758	972 161	15 195	22 183	934 783	1				
	2002..	1 292 341	110 023	1 182 318	9 905	27 979	1 144 434	X				
33631M	Motor vehicle gasoline engine and engine parts manufacturing .....	1 139 920	167 758	972 161	15 195	22 183	934 783	1				
	2002..	1 292 341	110 023	1 182 318	9 905	27 979	1 144 434	X				
33632	Motor vehicle electrical and electronic equipment manufacturing .....	688 927	56 432	632 495	6 953	51 080	574 463	1				
	2002..	712 363	71 649	640 714	11 649	34 375	594 690	X				
33632M	Motor vehicle electrical and electronic equipment manufacturing .....	688 927	56 432	632 495	6 953	51 080	574 463	1				
	2002..	712 363	71 649	640 714	11 649	34 375	594 690	X				

See footnotes at end of table.

**Table 5. Capital Expenditures for Plant and Equipment by Industry Groups and Industries: 2003 and 2002—Con.**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	Total (new and used)	Buildings and other structures	Machinery and equipment				Relative standard error of estimate <sup>2</sup> (percent) for column—	
				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures		
									A
336	Transportation equipment manufacturing—Con.								
3363	Motor vehicle parts manufacturing—Con.								
33633	Motor vehicle steering and suspension component (except spring) manufacturing .....	2003.. 364 245	38 710	325 535	2 274	7 971	315 290	1	
		2002.. 400 763	38 738	362 025	2 452	8 797	350 776	X	
336330	Motor vehicle steering and suspension component (except spring) manufacturing .....	2003.. 364 245	38 710	325 535	2 274	7 971	315 290	1	
		2002.. 400 763	38 738	362 025	2 452	8 797	350 776	X	
33634	Motor vehicle brake system manufacturing .....	2003.. 423 296	14 172	409 123	2 146	12 162	394 815	1	
		2002.. 568 244	46 331	521 913	6 836	17 907	497 170	X	
336340	Motor vehicle brake system manufacturing .....	2003.. 423 296	14 172	409 123	2 146	12 162	394 815	1	
		2002.. 568 244	46 331	521 913	6 836	17 907	497 170	X	
33635	Motor vehicle transmission and power train parts manufacturing .....	2003.. 1 175 477	124 541	1 050 936	10 896	45 926	994 115	1	
		2002.. 1 620 749	179 152	1 441 597	8 773	35 935	1 396 889	X	
336350	Motor vehicle transmission and power train parts manufacturing .....	2003.. 1 175 477	124 541	1 050 936	10 896	45 926	994 115	1	
		2002.. 1 620 749	179 152	1 441 597	8 773	35 935	1 396 889	X	
33636	Motor vehicle seating and interior trim manufacturing .....	2003.. 313 107	28 588	284 518	2 144	12 277	270 097	1	
		2002.. 335 551	73 470	262 081	6 260	15 141	240 680	X	
336360	Motor vehicle seating and interior trim manufacturing .....	2003.. 313 107	28 588	284 518	2 144	12 277	270 097	1	
		2002.. 335 551	73 470	262 081	6 260	15 141	240 680	X	
33637	Motor vehicle metal stamping .....	2003.. 1 904 112	145 465	1 758 648	42 219	237 878	1 478 550	1	
		2002.. 1 023 808	156 315	867 493	12 911	43 180	811 402	X	
336370	Motor vehicle metal stamping .....	2003.. 1 904 112	145 465	1 758 648	42 219	237 878	1 478 550	1	
		2002.. 1 023 808	156 315	867 493	12 911	43 180	811 402	X	
33639	Other motor vehicle parts manufacturing .....	2003.. 1 365 303	83 352	1 281 951	19 481	69 844	1 192 626	1	
		2002.. 1 596 461	161 376	1 435 085	25 392	62 236	1 347 457	X	
336391	Motor vehicle air-conditioning manufacturing .....	2003.. 136 866	5 928	130 939	1 678	6 605	122 656	1	
		2002.. 211 585	13 031	198 554	4 054	8 777	185 723	X	
336399	All other miscellaneous motor vehicle parts manufacturing .....	2003.. 1 228 437	77 424	1 151 012	17 803	63 239	1 069 970	1	
		2002.. 1 384 876	148 345	1 236 531	21 338	53 459	1 161 734	X	
3364	Aerospace product and parts manufacturing .....	2003.. 2 337 126	555 827	1 781 298	50 316	211 583	1 519 399	1	
		2002.. 2 885 424	603 968	2 281 456	45 036	277 643	1 958 777	X	
33641	Aerospace product and parts manufacturing .....	2003.. 2 337 126	555 827	1 781 298	50 316	211 583	1 519 399	1	
		2002.. 2 885 424	603 968	2 281 456	45 036	277 643	1 958 777	X	
336411	Aircraft manufacturing .....	2003.. 691 788	363 158	328 630	3 033	44 256	281 341	1	
		2002.. 913 852	245 004	668 848	6 540	58 635	603 673	X	
336412	Aircraft engine and engine parts manufacturing .....	2003.. 674 131	12 034	662 097	18 859	56 022	587 216	1	
		2002.. 819 206	101 312	717 894	4 786	68 288	644 820	X	
336413	Other aircraft parts and auxiliary equipment manufacturing .....	2003.. 495 651	89 804	405 847	13 074	55 223	337 550	1	
		2002.. 664 500	149 454	515 046	15 628	107 664	391 754	X	
336414	Guided missile and space vehicle manufacturing .....	2003.. 384 543	76 525	308 018	D	D	251 025	1	
		2002.. 364 009	73 463	290 546	D	D	243 302	X	
336415	Guided missile and space vehicle propulsion unit and propulsion unit parts manufacturing .....	2003.. 79 818	13 792	66 026	D	D	52 971	1	
		2002.. 105 889	29 716	76 173	D	D	63 914	X	
336419	Other guided missile and space vehicle parts and auxiliary equipment manufacturing .....	2003.. 11 195	514	10 681	24	1 360	9 296	1	
		2002.. 17 968	5 019	12 949	496	1 139	11 314	X	
3365	Railroad rolling stock manufacturing .....	2003.. 97 604	10 851	86 752	2 920	6 652	77 181	1	
		2002.. 124 687	31 739	92 948	D	D	81 498	X	
33651	Railroad rolling stock manufacturing .....	2003.. 97 604	10 851	86 752	2 920	6 652	77 181	1	
		2002.. 124 687	31 739	92 948	D	D	81 498	X	
336510	Railroad rolling stock manufacturing .....	2003.. 97 604	10 851	86 752	2 920	6 652	77 181	1	
		2002.. 124 687	31 739	92 948	D	D	81 498	X	
3366	Ship and boat building .....	2003.. 374 306	77 207	297 099	21 860	39 102	236 137	1	
		2002.. 440 053	106 921	333 132	16 545	42 055	274 532	X	
33661	Ship and boat building .....	2003.. 374 306	77 207	297 099	21 860	39 102	236 137	1	
		2002.. 440 053	106 921	333 132	16 545	42 055	274 532	X	
336611	Ship building and repairing .....	2003.. 237 762	52 233	185 529	12 206	29 208	144 115	1	
		2002.. 276 415	73 654	202 761	5 674	28 573	168 514	X	
336612	Boat building .....	2003.. 136 545	24 974	111 570	9 655	9 894	92 022	1	
		2002.. 163 638	33 267	130 371	10 871	13 482	106 018	X	
3369	Other transportation equipment manufacturing .....	2003.. 368 755	42 058	326 697	6 355	22 113	298 229	2	
		2002.. 519 960	104 878	415 082	D	D	380 570	X	
33699	Other transportation equipment manufacturing .....	2003.. 368 755	42 058	326 697	6 355	22 113	298 229	2	
		2002.. 519 960	104 878	415 082	D	D	380 570	X	
336991	Motorcycle, bicycle, and parts manufacturing .....	2003.. 151 884	3 258	148 626	2 829	9 885	135 912	1	
		2002.. 308 547	53 434	255 113	D	D	236 025	X	
336992	Military armored vehicle, tank, and tank component manufacturing .....	2003.. 21 980	2 644	19 336	1 702	4 241	13 394	1	
		2002.. 15 818	2 860	12 958	D	D	9 643	X	
336999	All other transportation equipment manufacturing .....	2003.. 194 892	36 156	158 735	1 825	7 987	148 923	4	
		2002.. 195 595	48 584	147 011	3 118	8 991	134 902	X	

See footnotes at end of table.

**Table 5. Capital Expenditures for Plant and Equipment by Industry Groups and Industries: 2003 and 2002—Con.**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	Total (new and used)	Buildings and other structures	Machinery and equipment				Relative standard error of estimate <sup>2</sup> (percent) for column—
				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures	
337	Furniture and related product manufacturing .....	2003.. 1 598 333	258 591	1 339 742	155 390	204 773	979 579	1
		2002.. 1 765 653	337 068	1 428 585	100 999	184 303	1 143 283	X
3371	Household and institutional furniture and kitchen cabinet manufacturing .....	2003.. 985 264	158 952	826 311	113 453	137 961	574 897	1
		2002.. 1 035 203	231 780	803 423	67 371	93 470	642 582	X
33711	Wood kitchen cabinet and counter top manufacturing .....	2003.. 555 860	67 504	488 356	91 444	87 928	308 983	1
		2002.. 446 307	108 073	338 234	30 035	32 163	276 036	X
337110	Wood kitchen cabinet and counter top manufacturing .....	2003.. 555 860	67 504	488 356	91 444	87 928	308 983	1
		2002.. 446 307	108 073	338 234	30 035	32 163	276 036	X
33712	Household and institutional furniture manufacturing .....	2003.. 429 404	91 449	337 956	22 009	50 033	265 914	1
		2002.. 588 896	123 707	465 189	37 336	61 307	366 546	X
337121	Upholstered household furniture manufacturing .....	2003.. 108 986	22 905	86 081	9 313	13 412	63 357	1
		2002.. 174 487	48 120	126 367	12 351	13 816	100 200	X
337122	Nonupholstered wood household furniture manufacturing .....	2003.. 151 822	14 312	137 510	6 252	17 175	114 083	1
		2002.. 217 905	41 610	176 295	13 660	22 381	140 254	X
337127	Institutional furniture manufacturing .....	2003.. 125 116	44 456	80 661	5 040	14 681	60 940	1
		2002.. 125 026	26 456	98 570	8 948	18 843	70 779	X
33712N	Other household nonupholstered furniture .....	2003.. 43 480	9 776	33 704	1 405	4 765	27 534	1
		2002.. 71 478	7 521	63 957	2 377	6 267	55 313	X
3372	Office furniture (including fixtures) manufacturing .....	2003.. 499 332	74 402	424 929	33 137	50 345	341 447	1
		2002.. 523 491	65 634	457 857	21 736	61 528	374 593	X
33721	Office furniture (including fixtures) manufacturing .....	2003.. 499 332	74 402	424 929	33 137	50 345	341 447	1
		2002.. 523 491	65 634	457 857	21 736	61 528	374 593	X
337212	Custom architectural woodwork and millwork manufacturing .....	2003.. 59 318	5 814	53 503	5 844	6 213	41 446	1
		2002.. 86 283	13 308	72 975	8 130	9 719	55 126	X
337215	Showcase, partition, shelving, and locker manufacturing .....	2003.. 266 097	59 977	206 121	S	24 937	156 369	1
		2002.. 197 878	33 544	164 334	9 273	18 686	136 375	X
33721N	Office furniture manufacturing .....	2003.. 173 917	8 611	165 306	2 478	19 195	143 633	1
		2002.. 239 330	18 782	220 548	4 333	33 123	183 092	X
3379	Other furniture related product manufacturing .....	2003.. 113 737	25 236	88 502	8 800	16 467	63 235	1
		2002.. 206 959	39 654	167 305	11 892	29 305	126 108	X
33791	Mattress manufacturing .....	2003.. 64 784	17 155	47 630	6 566	4 116	36 948	1
		2002.. 83 184	12 527	70 657	5 878	12 070	52 709	X
337910	Mattress manufacturing .....	2003.. 64 784	17 155	47 630	6 566	4 116	36 948	1
		2002.. 83 184	12 527	70 657	5 878	12 070	52 709	X
33792	Blind and shade manufacturing .....	2003.. 48 953	8 081	40 872	2 234	12 351	26 286	1
		2002.. 123 775	27 127	96 648	6 014	17 235	73 399	X
337920	Blind and shade manufacturing .....	2003.. 48 953	8 081	40 872	2 234	12 351	26 286	1
		2002.. 123 775	27 127	96 648	6 014	17 235	73 399	X
339	Miscellaneous manufacturing .....	2003.. 3 406 497	475 691	2 930 806	102 752	449 593	2 378 461	1
		2002.. 4 041 654	749 108	3 292 546	133 187	552 493	2 606 866	X
3391	Medical equipment and supplies manufacturing .....	2003.. 1 941 543	296 688	1 644 855	36 585	272 059	1 336 211	1
		2002.. 2 242 859	464 880	1 777 979	53 866	305 242	1 418 871	X
33911	Medical equipment and supplies manufacturing .....	2003.. 1 941 543	296 688	1 644 855	36 585	272 059	1 336 211	1
		2002.. 2 242 859	464 880	1 777 979	53 866	305 242	1 418 871	X
339111	Laboratory apparatus and furniture manufacturing .....	2003.. 81 077	7 837	73 240	1 898	14 086	57 256	1
		2002.. 115 100	17 081	98 019	3 810	16 021	78 188	X
339112	Surgical and medical instrument manufacturing .....	2003.. 748 887	100 379	648 508	7 345	95 208	545 955	1
		2002.. 931 552	188 265	743 287	15 862	98 107	629 318	X
339113	Surgical appliance and supplies manufacturing .....	2003.. 747 868	131 297	616 570	7 992	119 186	489 393	1
		2002.. 810 794	180 030	630 764	16 746	149 655	464 363	X
339114	Dental equipment and supplies manufacturing .....	2003.. 86 475	10 147	76 328	4 436	12 384	59 509	1
		2002.. 147 316	33 464	113 852	3 683	18 038	92 131	X
339115	Ophthalmic goods manufacturing .....	2003.. 161 750	32 951	128 799	3 383	18 029	107 387	1
		2002.. 143 134	32 913	110 221	3 555	12 911	93 755	X
339116	Dental laboratories .....	2003.. 115 486	14 076	101 409	11 530	13 167	76 712	1
		2002.. 94 963	13 127	81 836	10 210	10 510	61 116	X
3399	Other miscellaneous manufacturing .....	2003.. 1 464 955	179 003	1 285 951	66 168	177 534	1 042 250	1
		2002.. 1 798 795	284 228	1 514 567	79 321	247 251	1 187 995	X
33991	Jewelry and silverware manufacturing .....	2003.. 110 341	6 949	103 391	4 055	19 490	79 847	1
		2002.. 130 353	13 990	116 363	5 091	29 335	81 937	X
33991M	Jewelry and silverware manufacturing .....	2003.. 110 341	6 949	103 391	4 055	19 490	79 847	1
		2002.. 130 353	13 990	116 363	5 091	29 335	81 937	X
33992	Sporting and athletic goods manufacturing .....	2003.. 288 522	31 734	256 788	10 340	30 042	216 405	1
		2002.. 327 422	42 551	284 871	10 475	53 025	221 371	X
339920	Sporting and athletic goods manufacturing .....	2003.. 288 522	31 734	256 788	10 340	30 042	216 405	1
		2002.. 327 422	42 551	284 871	10 475	53 025	221 371	X
33993	Doll, toy, and game manufacturing .....	2003.. 79 989	5 214	74 775	3 531	14 416	56 828	1
		2002.. 115 392	18 144	97 248	1 648	18 525	77 075	X
33993M	Doll, toy, and game manufacturing .....	2003.. 79 989	5 214	74 775	3 531	14 416	56 828	1
		2002.. 115 392	18 144	97 248	1 648	18 525	77 075	X
33994	Office supplies (except paper) manufacturing .....	2003.. 80 939	8 784	72 155	3 826	10 504	57 825	1
		2002.. 103 569	14 758	88 811	3 421	12 311	73 079	X
33994M	Office supplies (except paper) manufacturing .....	2003.. 80 939	8 784	72 155	3 826	10 504	57 825	1
		2002.. 103 569	14 758	88 811	3 421	12 311	73 079	X
33995	Sign manufacturing .....	2003.. 225 075	24 949	200 126	24 481	31 427	144 218	1
		2002.. 242 116	40 303	201 813	25 633	31 942	144 238	X
339950	Sign manufacturing .....	2003.. 225 075	24 949	200 126	24 481	31 427	144 218	1
		2002.. 242 116	40 303	201 813	25 633	31 942	144 238	X

See footnotes at end of table.

**Table 5. Capital Expenditures for Plant and Equipment by Industry Groups and Industries: 2003 and 2002—Con.**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	Total (new and used)	Buildings and other structures	Machinery and equipment				Relative standard error of estimate <sup>2</sup> (percent) for column—	
				Total	Automobiles, trucks, etc., for highway use	Computers and peripheral data processing equipment	All other expenditures		
									A
339	Miscellaneous manufacturing—Con.								
3399	Other miscellaneous manufacturing—Con.								
33999	All other miscellaneous manufacturing . . . . . 2003..	680 089	101 373	578 716	19 934	71 655	487 126	1	
	2002..	879 943	154 482	725 461	33 053	102 113	590 295	X	
339991	Gasket, packing, and sealing device manufacturing . . . . . 2003..	147 296	20 929	126 366	1 462	9 216	115 688	1	
	2002..	199 615	33 173	166 442	5 780	16 405	144 257	X	
339992	Musical instrument manufacturing . . . . . 2003..	24 988	3 340	21 648	1 645	3 225	16 778	1	
	2002..	37 964	7 509	30 455	1 422	4 382	24 651	X	
339993	Fastener, button, needle, and pin manufacturing . . . . . 2003..	39 967	4 750	35 217	464	4 098	30 655	2	
	2002..	35 028	3 210	31 818	336	4 359	27 123	X	
339994	Broom, brush, and mop manufacturing . . . . . 2003..	54 964	9 803	45 161	1 359	5 300	38 503	2	
	2002..	63 576	7 532	56 044	5 368	11 851	38 825	X	
339995	Burial casket manufacturing . . . . . 2003..	13 798	729	13 069	1 422	1 359	10 288	1	
	2002..	17 468	1 237	16 231	1 207	734	14 290	X	
339999	All other miscellaneous manufacturing . . . . . 2003..	399 075	61 822	337 253	13 582	48 456	275 216	1	
	2002..	526 292	101 821	424 471	18 940	64 382	341 149	X	

<sup>1</sup>For a comparison of the Annual Survey of Manufactures (ASM) general statistics NAICS-based codes to the 2002 Economic Census NAICS codes, see Appendix F.

<sup>2</sup>Description of relative standard error of estimate is given in Appendix C. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note 1: Previous years' data may differ from that published in the 2002 Economic Census because of changes encountered in subsequent review of the 2003 Annual Survey of Manufactures (ASM).

Note 2: The data in this table are based on the 2003 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The data in this table contain sampling errors and nonsampling errors. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—			
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D
		A	B	C	D	E	F	G	H	A	B	C	D
<b>31-33</b>	<b>Manufacturing</b> .....	<b>407 721 075</b>	<b>151 407 101</b>	<b>115 915 733</b>	<b>140 398 241</b>	<b>405 891 690</b>	<b>149 865 656</b>	<b>115 351 704</b>	<b>140 674 330</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
	2002..	<b>412 656 310</b>	<b>152 682 295</b>	<b>116 613 189</b>	<b>143 360 826</b>	<b>419 167 388</b>	<b>155 568 616</b>	<b>116 939 297</b>	<b>146 659 475</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
311	Food manufacturing .....	31 645 218	17 763 218	2 687 182	11 194 818	30 374 910	17 439 107	2 603 773	10 332 030	1	1	2	1
	2002..	31 500 814	18 363 481	2 769 709	10 367 624	30 770 538	17 788 780	2 599 180	10 382 578	X	X	X	X
3111	Animal food manufacturing .....	1 436 687	594 747	94 850	747 089	1 383 938	627 501	114 717	S	3	5	6	3
	2002..	1 367 723	634 287	117 034	616 402	1 361 648	518 963	119 178	723 507	X	X	X	X
31111	Animal food manufacturing .....	1 436 687	594 747	94 850	747 089	1 383 938	627 501	114 717	S	3	5	6	3
	2002..	1 367 723	634 287	117 034	616 402	1 361 648	518 963	119 178	723 507	X	X	X	X
311111	Dog and cat food manufacturing .....	468 477	221 761	9 067	237 650	463 623	246 564	10 723	206 336	1	3	24	3
	2002..	453 398	232 351	11 376	209 671	388 719	185 460	11 965	191 294	X	X	X	X
311119	Other animal food manufacturing .....	968 210	372 987	85 784	509 439	S	380 937	103 994	S	5	8	6	4
	2002..	914 325	401 936	105 658	406 731	972 929	333 503	107 213	532 213	X	X	X	X
3112	Grain and oilseed milling .....	3 720 376	1 408 504	240 979	2 070 893	3 372 647	1 339 772	207 602	1 825 274	1	2	5	2
	2002..	3 453 089	1 338 862	259 674	1 854 553	3 051 226	1 208 584	184 359	1 658 283	X	X	X	X
31121	Flour milling and malt manufacturing .....	1 186 971	219 704	62 605	904 662	1 050 039	211 703	57 362	780 974	3	1	3	4
	2002..	1 044 277	208 588	57 507	778 182	927 572	194 563	45 645	687 364	X	X	X	X
31121M	Flour milling and malt manufacturing .....	1 186 971	219 704	62 605	904 662	1 050 039	211 703	57 362	780 974	3	1	3	4
	2002..	1 044 277	208 588	57 507	778 182	927 572	194 563	45 645	687 364	X	X	X	X
31122	Starch and vegetable fats and oils manufacturing .....	2 179 627	1 049 897	163 486	966 244	1 995 493	986 651	139 434	869 408	2	3	8	3
	2002..	2 096 465	1 006 586	190 594	899 285	1 806 965	913 475	129 803	763 687	X	X	X	X
311221	Wet corn milling .....	479 183	250 418	27 063	201 702	538 773	285 060	34 261	219 452	2	3	3	2
	2002..	482 917	256 872	32 064	193 981	436 138	232 645	24 192	179 301	X	X	X	X
311225	Fats and oils refining and blending .....	387 851	204 269	43 386	140 196	336 663	164 392	29 606	142 665	3	2	13	4
	2002..	398 711	190 202	41 632	166 877	363 342	176 246	43 866	143 230	X	X	X	X
31122N	Soybean and other oilseed processing .....	1 312 592	595 210	93 038	624 345	1 120 057	537 199	75 567	507 291	3	5	12	4
	2002..	1 214 837	559 512	116 898	538 427	1 007 485	504 584	61 745	441 156	X	X	X	X
31123	Breakfast cereal manufacturing .....	353 778	138 903	14 887	199 988	327 115	141 418	10 805	174 892	1	1	1	1
	2002..	312 347	123 688	11 573	177 086	316 689	100 546	8 911	207 232	X	X	X	X
311230	Breakfast cereal manufacturing .....	353 778	138 903	14 887	199 988	327 115	141 418	10 805	174 892	1	1	1	1
	2002..	312 347	123 688	11 573	177 086	316 689	100 546	8 911	207 232	X	X	X	X
3113	Sugar and confectionery product manufacturing .....	3 267 752	1 842 815	278 176	1 146 761	3 211 703	1 882 500	256 665	1 072 538	3	4	3	1
	2002..	3 192 209	1 846 555	269 776	1 075 878	3 234 844	1 967 351	244 530	1 022 963	X	X	X	X
31131	Sugar manufacturing .....	1 400 335	903 743	125 634	370 958	1 360 626	911 334	107 170	342 122	6	8	1	4
	2002..	1 310 826	866 714	107 510	336 602	1 396 614	961 843	101 875	332 896	X	X	X	X
311313	Beet sugar manufacturing .....	672 435	396 199	97 185	179 051	659 540	393 850	93 328	172 361	12	17	2	8
	2002..	628 887	365 427	93 924	169 536	584 672	342 070	86 654	155 948	X	X	X	X
31131N	Sugar cane mills and refining .....	727 900	507 544	28 449	191 907	701 087	517 484	13 842	169 761	1	1	1	1
	2002..	681 939	501 287	13 586	167 066	811 942	619 773	15 221	176 948	X	X	X	X
31132	Chocolate and confectionery manufacturing from cacao beans .....	595 130	276 235	48 926	269 969	559 374	269 178	58 274	231 922	1	4	17	1
	2002..	576 154	273 959	65 126	237 069	548 057	264 362	61 952	221 743	X	X	X	X
311320	Chocolate and confectionery manufacturing from cacao beans .....	595 130	276 235	48 926	269 969	559 374	269 178	58 274	231 922	1	4	17	1
	2002..	576 154	273 959	65 126	237 069	548 057	264 362	61 952	221 743	X	X	X	X
31133	Confectionery manufacturing from purchased chocolate .....	737 998	406 179	54 597	277 222	792 619	471 586	49 935	271 098	2	2	1	2
	2002..	800 696	475 664	50 748	274 284	813 437	500 506	44 825	268 106	X	X	X	X
311330	Confectionery manufacturing from purchased chocolate .....	737 998	406 179	54 597	277 222	792 619	471 586	49 935	271 098	2	2	1	2
	2002..	800 696	475 664	50 748	274 284	813 437	500 506	44 825	268 106	X	X	X	X
31134	Nonchocolate confectionery manufacturing .....	534 290	256 659	49 018	228 613	499 084	230 401	41 286	227 397	1	2	8	1
	2002..	504 533	230 218	46 392	227 923	476 736	240 640	35 878	200 218	X	X	X	X
311340	Nonchocolate confectionery manufacturing .....	534 290	256 659	49 018	228 613	499 084	230 401	41 286	227 397	1	2	8	1
	2002..	504 533	230 218	46 392	227 923	476 736	240 640	35 878	200 218	X	X	X	X
3114	Fruit and vegetable preserving and specialty food manufacturing .....	7 507 231	4 856 601	893 171	1 757 458	7 805 694	5 311 422	790 041	1 704 230	2	2	3	2
	2002..	8 156 598	5 516 092	890 962	1 749 544	8 076 332	5 509 011	808 627	1 758 694	X	X	X	X
31141	Frozen food manufacturing .....	2 503 393	1 737 150	150 220	616 024	2 511 640	1 768 523	146 231	596 887	1	1	1	2
	2002..	2 682 780	1 916 581	146 968	619 231	2 530 278	1 743 912	116 798	669 568	X	X	X	X
31141M	Frozen food manufacturing .....	2 503 393	1 737 150	150 220	616 024	2 511 640	1 768 523	146 231	596 887	1	1	1	2
	2002..	2 682 780	1 916 581	146 968	619 231	2 530 278	1 743 912	116 798	669 568	X	X	X	X
31142	Fruit and vegetable canning, pickling, and drying .....	5 003 837	3 119 451	742 952	1 141 434	5 294 054	3 542 899	643 811	1 107 344	3	4	4	2
	2002..	5 473 818	3 599 511	743 994	1 130 313	5 546 054	3 765 099	691 829	1 089 126	X	X	X	X
31142M	Fruit and vegetable canning, pickling, and drying .....	5 003 837	3 119 451	742 952	1 141 434	5 294 054	3 542 899	643 811	1 107 344	3	4	4	2
	2002..	5 473 818	3 599 511	743 994	1 130 313	5 546 054	3 765 099	691 829	1 089 126	X	X	X	X

See footnotes at end of table.

**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—						
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.							
		A	B	C	D	E	F	G	H	A	B	C	D			
311	Food manufacturing—Con.															
3115	Dairy product manufacturing	3 505 364	2 263 886	147 790	1 093 689	3 297 332	2 113 843	180 386	1 003 103	1	2	18	2			
		2002..	2 093 560	181 665	993 560	3 108 183	1 967 549	180 479	960 155	X	X	X	X			
31151	Dairy product (except frozen) manufacturing	3 073 835	1 973 796	140 958	959 082	2 894 541	1 838 816	172 793	872 932	2	2	19	2			
		2002..	2 856 820	174 427	864 542	2 695 082	1 700 182	172 299	822 601	X	X	X	X			
311513	Cheese manufacturing	1 620 852	1 043 751	100 315	476 787	1 510 370	975 066	113 295	422 009	3	4	3	3			
		2002..	1 482 189	960 859	112 522	408 808	1 382 936	933 288	341 698	X	X	X	X			
311514	Dry, condensed, and evaporated dairy product manufacturing	622 565	436 361	S	168 853	609 146	404 287	38 639	166 220	3	4	S	5			
		2002..	631 956	405 519	39 300	187 137	670 697	42 926	206 229	X	X	X	X			
31151N	Fluid milk and butter manufacturing	830 418	493 684	23 293	313 442	765 026	459 463	20 859	284 703	1	1	8	2			
		2002..	742 675	451 473	22 605	268 597	641 449	343 968	22 807	X	X	X	X			
31152	Ice cream and frozen dessert manufacturing	431 529	290 090	6 832	134 607	412 791	275 028	7 593	130 170	2	2	5	2			
		2002..	411 965	275 709	7 238	129 018	413 101	8 180	137 554	X	X	X	X			
311520	Ice cream and frozen dessert manufacturing	431 529	290 090	6 832	134 607	412 791	275 028	7 593	130 170	2	2	5	2			
		2002..	411 965	275 709	7 238	129 018	413 101	8 180	137 554	X	X	X	X			
3116	Animal slaughtering and processing	4 634 177	2 855 473	573 578	1 205 126	4 300 479	2 681 239	511 206	1 108 035	1	2	3	1			
		2002..	4 466 416	2 813 301	519 565	1 133 550	4 574 273	2 545 279	538 084	X	X	X	X			
31161	Animal slaughtering and processing	4 634 177	2 855 473	573 578	1 205 126	4 300 479	2 681 239	511 206	1 108 035	1	2	3	1			
		2002..	4 466 416	2 813 301	519 565	1 133 550	4 574 273	2 545 279	538 084	X	X	X	X			
311615	Poultry processing	1 408 632	893 808	129 418	385 407	1 297 353	821 856	125 424	350 073	1	1	1	1			
		2002..	1 354 030	861 201	128 185	364 644	1 150 837	163 245	350 470	X	X	X	X			
31161N	Animal (except poultry) slaughtering and processing	3 225 545	1 961 665	444 160	819 720	3 003 126	1 859 383	385 782	757 961	2	2	3	1			
		2002..	3 112 386	1 952 100	391 380	768 906	3 423 436	374 962	1 140 440	X	X	X	X			
3117	Seafood product preparation and packaging	1 082 793	810 163	17 605	255 025	994 011	739 032	21 801	233 179	4	5	29	3			
		2002..	918 047	648 264	26 116	243 667	1 047 641	739 757	270 618	X	X	X	X			
31171	Seafood product preparation and packaging	1 082 793	810 163	17 605	255 025	994 011	739 032	21 801	233 179	4	5	29	3			
		2002..	918 047	648 264	26 116	243 667	1 047 641	739 757	270 618	X	X	X	X			
31171M	Seafood product preparation and packaging	1 082 793	810 163	17 605	255 025	994 011	739 032	21 801	233 179	4	5	29	3			
		2002..	918 047	648 264	26 116	243 667	1 047 641	739 757	270 618	X	X	X	X			
3118	Bakeries and tortilla manufacturing	2 006 747	937 010	56 759	1 012 977	1 764 260	754 602	39 582	970 076	7	11	10	4			
		2002..	1 809 550	821 350	39 829	948 371	1 648 357	38 686	875 004	X	X	X	X			
31181	Bread and bakery product manufacturing	896 458	303 736	23 858	568 865	890 624	288 754	24 019	577 852	2	3	7	2			
		2002..	852 063	285 736	24 230	542 097	814 992	22 563	528 961	X	X	X	X			
31181M	Bread and bakery product manufacturing	896 458	303 736	23 858	568 865	890 624	288 754	24 019	577 852	2	3	7	2			
		2002..	852 063	285 736	24 230	542 097	814 992	22 563	528 961	X	X	X	X			
31182	Cookie, cracker, and pasta manufacturing	1 035 962	597 929	24 578	413 456	828 737	449 871	14 493	364 374	14	18	7	10			
		2002..	911 061	519 936	14 559	376 566	793 655	14 991	322 135	X	X	X	X			
31182M	Cookie, cracker, and pasta manufacturing	1 035 962	597 929	24 578	413 456	828 737	449 871	14 493	364 374	14	18	7	10			
		2002..	911 061	519 936	14 559	376 566	793 655	14 991	322 135	X	X	X	X			
31183	Tortilla manufacturing	74 326	35 346	8 323	30 657	44 898	15 978	1 071	27 850	29	46	64	3			
		2002..	46 426	15 678	1 040	29 708	39 710	1 132	23 908	X	X	X	X			
311830	Tortilla manufacturing	74 326	35 346	8 323	30 657	44 898	15 978	1 071	27 850	29	46	64	3			
		2002..	46 426	15 678	1 040	29 708	39 710	1 132	23 908	X	X	X	X			
3119	Other food manufacturing	4 484 091	2 194 018	384 275	1 905 799	4 244 846	1 989 197	481 773	1 773 877	1	2	8	1			
		2002..	4 868 397	2 651 210	465 088	1 752 099	4 668 034	2 597 619	1 622 444	X	X	X	X			
31191	Snack food manufacturing	1 009 971	577 545	94 693	337 734	1 044 902	489 748	207 650	347 504	4	5	31	2			
		2002..	1 163 334	200 762	364 703	1 751 850	1 207 491	212 281	332 078	X	X	X	X			
31191M	Snack food manufacturing	1 009 971	577 545	94 693	337 734	1 044 902	489 748	207 650	347 504	4	5	31	2			
		2002..	1 163 334	200 762	364 703	1 751 850	1 207 491	212 281	332 078	X	X	X	X			
31192	Coffee and tea manufacturing	513 636	244 876	55 492	213 268	428 898	183 060	46 904	198 935	2	2	2	4			
		2002..	468 824	203 532	52 531	212 761	468 297	47 600	197 834	X	X	X	X			
311920	Coffee and tea manufacturing	513 636	244 876	55 492	213 268	428 898	183 060	46 904	198 935	2	2	2	4			
		2002..	468 824	203 532	52 531	212 761	468 297	47 600	197 834	X	X	X	X			
31193	Flavoring syrup and concentrate manufacturing	291 108	141 596	20 898	128 614	304 483	148 854	20 796	134 833	11	23	1	3			
		2002..	297 801	145 963	20 423	131 415	311 529	19 390	144 801	X	X	X	X			
311930	Flavoring syrup and concentrate manufacturing	291 108	141 596	20 898	128 614	304 483	148 854	20 796	134 833	11	23	1	3			
		2002..	297 801	145 963	20 423	131 415	311 529	19 390	144 801	X	X	X	X			
31194	Seasoning and dressing manufacturing	1 284 857	613 775	102 890	568 192	1 182 006	581 479	103 214	497 313	1	2	1	2			
		2002..	1 151 052	575 383	98 732	476 937	1 057 782	89 842	451 249	X	X	X	X			
31194M	Seasoning and dressing manufacturing	1 284 857	613 775	102 890	568 192	1 182 006	581 479	103 214	497 313	1	2	1	2			
		2002..	1 151 052	575 383	98 732	476 937	1 057 782	89 842	451 249	X	X	X	X			

See footnotes at end of table.

**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—						
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.							
		A	B	C	D	E	F	G	H	A	B	C	D			
311	Food manufacturing—Con.															
3119	Other food manufacturing—Con.															
31199	All other food manufacturing .....	2003.. 1 384 519	616 226	110 301	657 991	1 284 557	586 055	103 210	595 291	2	3	3	2			
		2002.. 1 221 921	562 998	92 640	566 283	1 078 576	503 236	78 858	496 482	X	X	X	X			
31199M	All other food manufacturing .....	2003.. 1 384 519	616 226	110 301	657 991	1 284 557	586 055	103 210	595 291	2	3	3	2			
		2002.. 1 221 921	562 998	92 640	566 283	1 078 576	503 236	78 858	496 482	X	X	X	X			
312	Beverage and tobacco product manufacturing .....	2003.. 14 624 255	4 893 036	4 278 699	5 452 521	14 717 132	4 775 664	4 274 413	5 667 055	1	3	2	1			
		2002.. 14 862 195	4 799 165	4 399 926	5 663 104	14 713 771	4 681 148	4 375 165	5 657 458	X	X	X	X			
3121	Beverage manufacturing .....	2003.. 9 472 692	4 090 697	4 152 603	1 229 392	9 504 143	4 076 112	4 153 211	1 274 820	2	4	2	1			
		2002.. 9 698 759	4 104 613	4 300 135	1 294 011	9 395 024	3 946 610	4 263 891	1 184 523	X	X	X	X			
31211	Soft drink and ice manufacturing .....	2003.. 1 365 387	748 815	43 543	573 030	1 375 070	708 987	53 282	612 800	2	2	7	2			
		2002.. 1 406 227	724 381	56 097	625 749	1 337 586	695 701	53 153	588 732	X	X	X	X			
31211M	Soft drink and ice manufacturing .....	2003.. 1 365 387	748 815	43 543	573 030	1 375 070	708 987	53 282	612 800	2	2	7	2			
		2002.. 1 406 227	724 381	56 097	625 749	1 337 586	695 701	53 153	588 732	X	X	X	X			
31212	Breweries .....	2003.. 479 459	80 752	173 685	225 022	494 674	77 986	175 169	241 519	1	1	1	1			
		2002.. 488 581	76 155	178 617	233 809	518 888	74 854	185 579	258 455	X	X	X	X			
312120	Breweries .....	2003.. 479 459	80 752	173 685	225 022	494 674	77 986	175 169	241 519	1	1	1	1			
		2002.. 488 581	76 155	178 617	233 809	518 888	74 854	185 579	258 455	X	X	X	X			
31213	Wineries .....	2003.. 5 730 249	1 929 210	3 466 441	334 598	5 634 744	1 847 082	3 473 288	314 374	2	3	2	3			
		2002.. 5 730 747	1 843 333	3 563 449	323 965	5 527 651	1 708 664	3 572 330	246 657	X	X	X	X			
312130	Wineries .....	2003.. 5 730 249	1 929 210	3 466 441	334 598	5 634 744	1 847 082	3 473 288	314 374	2	3	2	3			
		2002.. 5 730 747	1 843 333	3 563 449	323 965	5 527 651	1 708 664	3 572 330	246 657	X	X	X	X			
31214	Distilleries .....	2003.. 1 897 597	1 331 921	468 934	96 742	1 999 655	1 442 056	451 472	106 127	7	9	1	4			
		2002.. 2 073 204	1 460 744	501 972	110 488	2 010 899	1 467 391	452 829	90 679	X	X	X	X			
312140	Distilleries .....	2003.. 1 897 597	1 331 921	468 934	96 742	1 999 655	1 442 056	451 472	106 127	7	9	1	4			
		2002.. 2 073 204	1 460 744	501 972	110 488	2 010 899	1 467 391	452 829	90 679	X	X	X	X			
3122	Tobacco manufacturing .....	2003.. 5 151 564	802 338	126 096	4 223 129	5 212 989	699 552	121 202	4 392 235	1	1	1	1			
		2002.. 5 163 436	694 552	99 791	4 369 093	5 318 747	734 538	111 274	4 472 933	X	X	X	X			
31221	Tobacco stemming and redrying .....	2003.. 242 403	193 104	12 686	36 613	235 622	175 069	4 600	55 953	1	1	1	1			
		2002.. 235 466	175 020	4 565	55 881	285 080	235 616	15 728	33 736	X	X	X	X			
312210	Tobacco stemming and redrying .....	2003.. 242 403	193 104	12 686	36 613	235 622	175 069	4 600	55 953	1	1	1	1			
		2002.. 235 466	175 020	4 565	55 881	285 080	235 616	15 728	33 736	X	X	X	X			
31222	Tobacco product manufacturing .....	2003.. 4 909 161	609 234	113 410	4 186 516	4 977 367	524 483	116 602	4 336 282	1	2	1	1			
		2002.. 4 927 970	519 532	95 226	4 313 212	5 033 667	498 922	95 546	4 439 199	X	X	X	X			
31222M	Tobacco product manufacturing .....	2003.. 4 909 161	609 234	113 410	4 186 516	4 977 367	524 483	116 602	4 336 282	1	2	1	1			
		2002.. 4 927 970	519 532	95 226	4 313 212	5 033 667	498 922	95 546	4 439 199	X	X	X	X			
313	Textile mills .....	2003.. 4 593 819	2 032 323	1 228 405	1 333 091	4 700 312	2 136 783	1 234 372	1 329 157	1	1	1	1			
		2002.. 4 774 068	2 173 910	1 252 444	1 347 714	5 170 471	2 339 312	1 380 803	1 450 676	X	X	X	X			
3131	Fiber, yarn, and thread mills .....	2003.. 740 387	315 774	180 345	244 268	731 715	343 653	155 675	232 387	2	3	6	3			
		2002.. 722 958	326 514	155 168	241 276	863 819	370 555	181 858	311 406	X	X	X	X			
31311	Fiber, yarn, and thread mills .....	2003.. 740 387	315 774	180 345	244 268	731 715	343 653	155 675	232 387	2	3	6	3			
		2002.. 722 958	326 514	155 168	241 276	863 819	370 555	181 858	311 406	X	X	X	X			
31311M	Fiber, yarn, and thread mills .....	2003.. 740 387	315 774	180 345	244 268	731 715	343 653	155 675	232 387	2	3	6	3			
		2002.. 722 958	326 514	155 168	241 276	863 819	370 555	181 858	311 406	X	X	X	X			
3132	Fabric mills .....	2003.. 2 657 936	1 150 392	797 163	710 381	2 714 463	1 220 502	783 285	710 676	1	2	1	1			
		2002.. 2 787 808	1 268 083	801 929	717 796	2 954 417	1 376 885	849 629	727 903	X	X	X	X			
31321	Broadwoven fabric mills .....	2003.. 1 427 557	625 888	465 863	335 805	1 485 236	681 508	472 029	331 700	2	3	2	2			
		2002.. 1 528 984	703 241	485 270	340 473	1 637 248	761 238	525 515	350 495	X	X	X	X			
313210	Broadwoven fabric mills .....	2003.. 1 427 557	625 888	465 863	335 805	1 485 236	681 508	472 029	331 700	2	3	2	2			
		2002.. 1 528 984	703 241	485 270	340 473	1 637 248	761 238	525 515	350 495	X	X	X	X			
31322	Narrow fabric mills and schiffli machine embroidery .....	2003.. 237 636	96 417	61 690	79 529	247 269	101 173	61 095	85 002	2	2	3	2			
		2002.. 248 187	102 010	61 982	84 195	257 401	108 615	63 734	85 052	X	X	X	X			
31322M	Narrow fabric mills and schiffli machine embroidery .....	2003.. 237 636	96 417	61 690	79 529	247 269	101 173	61 095	85 002	2	2	3	2			
		2002.. 248 187	102 010	61 982	84 195	257 401	108 615	63 734	85 052	X	X	X	X			
31323	Nonwoven fabric mills .....	2003.. 685 253	321 551	161 493	202 209	639 596	312 178	139 107	188 310	2	3	1	2			
		2002.. 666 383	336 864	142 492	187 027	662 560	322 877	149 749	189 934	X	X	X	X			
313230	Nonwoven fabric mills .....	2003.. 685 253	321 551	161 493	202 209	639 596	312 178	139 107	188 310	2	3	1	2			
		2002.. 666 383	336 864	142 492	187 027	662 560	322 877	149 749	189 934	X	X	X	X			
31324	Knit fabric mills .....	2003.. 307 490	106 535	108 116	92 838	342 362	125 644	111 054	105 664	2	5	3	4			
		2002.. 344 250	125 968	112 185	106 101	397 208	184 155	110 631	102 422	X	X	X	X			
31324M	Knit fabric mills .....	2003.. 307 490	106 535	108 116	92 838	342 362	125 644	111 054	105 664	2	5	3	4			
		2002.. 344 250	125 968	112 185	106 101	397 208	184 155	110 631	102 422	X	X	X	X			
3133	Textile and fabric finishing and fabric coating mills .....	2003.. 1 195 496	566 156	250 898	378 442	1 254 134	572 628	295 412	386 095	2	2	2	2			
		2002.. 1 263 302	579 313	295 347	388 642	1 352 235	591 872	348 996	411 367	X	X	X	X			
31331	Textile and fabric finishing mills .....	2003.. 928 328	442 720	216 309	269 299	994 092	454 204	260 817	279 071	2	3	2	3			
		2002.. 1 006 032	462 680	260 251	283 101	1 073 918	467 805	311 475	294 638	X	X	X	X			
31331M	Textile and fabric finishing mills .....	2003.. 928 328	442 720	216 309	269 299	994 092	454 204	260 817	279 071	2	3	2	3			
		2002.. 1 006 032	462 680	260 251	283 101	1 073 918	467 805	311 475	294 638	X	X	X	X			
31332	Fabric coating mills .....	2003.. 267 168	123 437	34 588	109 143	260 043	118 424	34 595	107 024							



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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—			
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.				
		A	B	C	D	E	F	G	H	A	B	C	D
314	Textile product mills.....2003..	3 446 850	1 677 970	544 768	1 224 113	3 314 525	1 538 309	551 446	1 224 770	1	1	1	2
	.....2002..	3 352 798	1 544 306	559 586	1 248 906	4 407 188	2 106 743	672 527	1 627 918	X	X	X	X
3141	Textile furnishings mills.....2003..	2 249 871	1 083 937	396 931	769 003	2 154 389	963 816	398 640	791 933	1	1	1	1
	.....2002..	2 159 958	966 518	399 997	793 443	3 174 203	1 501 398	512 439	1 160 366	X	X	X	X
31411	Carpet and rug mills.....2003..	877 945	361 831	200 774	315 340	810 890	306 002	180 645	324 243	1	2	1	1
	.....2002..	812 467	305 505	180 294	326 668	1 816 210	813 820	301 214	701 176	X	X	X	X
314110	Carpet and rug mills.....2003..	877 945	361 831	200 774	315 340	810 890	306 002	180 645	324 243	1	2	1	1
	.....2002..	812 467	305 505	180 294	326 668	1 816 210	813 820	301 214	701 176	X	X	X	X
31412	Curtain and linen mills.....2003..	1 371 926	722 106	196 157	453 663	1 343 499	657 814	217 995	467 690	1	2	1	2
	.....2002..	1 347 491	661 013	219 703	466 775	1 357 993	687 578	211 225	459 190	X	X	X	X
31412M	Curtain and linen mills.....2003..	1 371 926	722 106	196 157	453 663	1 343 499	657 814	217 995	467 690	1	2	1	2
	.....2002..	1 347 491	661 013	219 703	466 775	1 357 993	687 578	211 225	459 190	X	X	X	X
3149	Other textile product mills.....2003..	1 196 980	594 032	147 837	455 110	1 160 136	574 494	152 805	432 837	2	2	3	4
	.....2002..	1 192 840	577 788	159 589	455 463	1 232 985	605 345	160 088	467 552	X	X	X	X
31491	Textile bag and canvas mills.....2003..	386 197	156 142	43 387	186 668	347 406	136 992	43 021	167 392	3	7	5	3
	.....2002..	349 761	137 227	45 238	167 296	356 301	134 520	44 775	177 006	X	X	X	X
31491M	Textile bag and canvas mills.....2003..	386 197	156 142	43 387	186 668	347 406	136 992	43 021	167 392	3	7	5	3
	.....2002..	349 761	137 227	45 238	167 296	356 301	134 520	44 775	177 006	X	X	X	X
31499	All other textile product mills.....2003..	810 783	437 891	104 450	268 442	812 730	437 501	109 785	265 445	2	2	4	6
	.....2002..	843 079	440 561	114 351	288 167	876 684	470 825	115 313	290 546	X	X	X	X
314991	Rope, cordage, and twine mills.....2003..	122 572	73 249	17 107	32 216	125 187	76 641	18 114	30 431	3	3	10	4
	.....2002..	132 297	78 285	21 004	33 008	125 475	78 196	17 942	29 337	X	X	X	X
314992	Tire cord and tire fabric mills.....2003..	101 391	48 987	21 735	30 669	101 639	46 327	24 293	31 019	1	3	1	1
	.....2002..	101 457	46 408	23 991	31 058	119 590	60 644	22 886	36 060	X	X	X	X
314999	All other miscellaneous textile product mills.....2003..	586 820	315 654	65 609	205 557	585 905	314 533	67 377	203 994	3	2	5	7
	.....2002..	609 325	315 868	69 356	224 101	631 619	331 985	74 485	225 149	X	X	X	X
315	Apparel manufacturing.....2003..	5 505 683	3 154 507	1 013 848	1 337 328	5 526 790	3 053 756	1 014 632	1 458 402	1	1	3	1
	.....2002..	5 801 587	3 178 898	1 080 432	1 542 257	6 060 852	3 423 327	1 063 149	1 574 376	X	X	X	X
3151	Apparel knitting mills.....2003..	699 439	331 050	225 200	143 188	707 012	327 973	224 591	154 448	2	2	2	6
	.....2002..	768 536	352 495	239 770	176 271	845 087	399 364	257 079	188 644	X	X	X	X
31511	Hosiery and sock mills.....2003..	431 976	185 837	157 400	88 739	447 401	183 112	164 079	100 210	3	2	2	10
	.....2002..	469 276	195 652	168 136	105 488	507 504	221 996	179 194	106 314	X	X	X	X
31511M	Hosiery and sock mills.....2003..	431 976	185 837	157 400	88 739	447 401	183 112	164 079	100 210	3	2	2	10
	.....2002..	469 276	195 652	168 136	105 488	507 504	221 996	179 194	106 314	X	X	X	X
31519	Other apparel knitting mills.....2003..	267 462	145 213	67 800	54 449	259 610	144 861	60 511	54 238	3	4	2	5
	.....2002..	299 260	156 843	71 634	70 783	337 583	177 368	77 885	82 330	X	X	X	X
31519M	Other apparel knitting mills.....2003..	267 462	145 213	67 800	54 449	259 610	144 861	60 511	54 238	3	4	2	5
	.....2002..	299 260	156 843	71 634	70 783	337 583	177 368	77 885	82 330	X	X	X	X
3152	Cut and sew apparel manufacturing.....2003..	4 340 172	2 555 770	746 496	1 037 906	4 347 049	2 451 138	749 235	1 146 676	1	1	4	2
	.....2002..	4 549 671	2 546 658	798 724	1 204 289	4 713 863	2 739 187	758 063	1 216 613	X	X	X	X
31521	Cut and sew apparel contractors.....2003..	280 493	125 337	55 085	100 070	363 058	147 683	75 847	139 527	5	6	6	9
	.....2002..	315 135	131 867	61 424	121 844	323 058	138 194	65 829	119 035	X	X	X	X
31521M	Cut and sew apparel contractors.....2003..	280 493	125 337	55 085	100 070	363 058	147 683	75 847	139 527	5	6	6	9
	.....2002..	315 135	131 867	61 424	121 844	323 058	138 194	65 829	119 035	X	X	X	X
31522	Men's and boys' cut and sew apparel manufacturing.....2003..	1 478 098	857 535	274 073	346 490	1 424 950	768 654	250 392	405 904	3	3	10	3
	.....2002..	1 636 058	895 997	290 665	449 396	1 622 260	959 224	242 063	420 973	X	X	X	X
31522M	Men's and boys' cut and sew apparel manufacturing.....2003..	1 478 098	857 535	274 073	346 490	1 424 950	768 654	250 392	405 904	3	3	10	3
	.....2002..	1 636 058	895 997	290 665	449 396	1 622 260	959 224	242 063	420 973	X	X	X	X
31523	Women's and girls' cut and sew apparel manufacturing.....2003..	2 227 672	1 353 324	377 614	496 734	2 218 448	1 324 526	385 588	508 334	1	2	3	2
	.....2002..	2 249 924	1 306 441	407 714	535 769	2 418 222	1 423 982	413 266	580 974	X	X	X	X
31523M	Women's and girls' cut and sew apparel manufacturing.....2003..	2 227 672	1 353 324	377 614	496 734	2 218 448	1 324 526	385 588	508 334	1	2	3	2
	.....2002..	2 249 924	1 306 441	407 714	535 769	2 418 222	1 423 982	413 266	580 974	X	X	X	X
31529	Other cut and sew apparel manufacturing.....2003..	353 909	219 573	39 724	94 612	340 593	210 274	37 408	92 911	3	3	7	2
	.....2002..	348 554	212 353	38 921	97 280	350 323	217 787	36 905	95 631	X	X	X	X
31529M	Other cut and sew apparel manufacturing.....2003..	353 909	219 573	39 724	94 612	340 593	210 274	37 408	92 911	3	3	7	2
	.....2002..	348 554	212 353	38 921	97 280	350 323	217 787	36 905	95 631	X	X	X	X
3159	Apparel accessories and other apparel manufacturing.....2003..	466 073	267 686	42 152	156 234	472 729	274 645	40 806	157 277	2	3	2	3
	.....2002..	483 380	279 745	41 938	161 697	501 902	284 776	48 007	169 119	X	X	X	X
31599	Apparel accessories and other apparel manufacturing.....2003..	466 073	267 686	42 152	156 234	472 729	274 645	40 806	157 277	2	3	2	3
	.....2002..	483 380	279 745	41 938	161 697	501 902	284 776	48 007	169 119	X	X	X	X
31599M	Apparel accessories and other apparel manufacturing.....2003..	466 073	267 686	42 152	156 234	472 729	274 645	40 806	157 277	2	3	2	3
	.....2002..	483 380	279 745	41 938	161 697	501 902	284 776	48 007	169 119	X	X	X	X

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		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.				
		A	B	C	D	E	F	G	H	A	B	C	D
316	Leather and allied product manufacturing .....	826 826	440 261	129 465	257 101	859 115	464 269	141 401	253 445	2	2	5	3
	2002..	875 703	472 498	143 811	259 394	984 841	524 969	163 843	296 029	X	X	X	X
3161	Leather and hide tanning and finishing .....	188 167	73 590	68 137	46 441	186 118	72 210	76 323	37 585	4	6	3	4
	2002..	190 053	74 030	75 990	40 033	223 218	84 943	90 642	47 633	X	X	X	X
31611	Leather and hide tanning and finishing .....	188 167	73 590	68 137	46 441	186 118	72 210	76 323	37 585	4	6	3	4
	2002..	190 053	74 030	75 990	40 033	223 218	84 943	90 642	47 633	X	X	X	X
316110	Leather and hide tanning and finishing .....	188 167	73 590	68 137	46 441	186 118	72 210	76 323	37 585	4	6	3	4
	2002..	190 053	74 030	75 990	40 033	223 218	84 943	90 642	47 633	X	X	X	X
3162	Footwear manufacturing .....	349 053	210 273	33 057	105 723	381 387	233 214	36 787	111 386	3	2	17	5
	2002..	390 712	238 339	40 097	112 276	452 059	282 797	41 006	128 256	X	X	X	X
31621	Footwear manufacturing .....	349 053	210 273	33 057	105 723	381 387	233 214	36 787	111 386	3	2	17	5
	2002..	390 712	238 339	40 097	112 276	452 059	282 797	41 006	128 256	X	X	X	X
31621M	Footwear manufacturing .....	349 053	210 273	33 057	105 723	381 387	233 214	36 787	111 386	3	2	17	5
	2002..	390 712	238 339	40 097	112 276	452 059	282 797	41 006	128 256	X	X	X	X
3169	Other leather and allied product manufacturing .....	289 606	156 398	28 271	104 937	291 609	158 845	28 290	104 474	3	3	2	4
	2002..	294 938	160 129	27 724	107 085	309 564	157 229	32 195	120 140	X	X	X	X
31699	Other leather and allied product manufacturing .....	289 606	156 398	28 271	104 937	291 609	158 845	28 290	104 474	3	3	2	4
	2002..	294 938	160 129	27 724	107 085	309 564	157 229	32 195	120 140	X	X	X	X
31699M	Other leather and allied product manufacturing .....	289 606	156 398	28 271	104 937	291 609	158 845	28 290	104 474	3	3	2	4
	2002..	294 938	160 129	27 724	107 085	309 564	157 229	32 195	120 140	X	X	X	X
321	Wood product manufacturing .....	9 410 320	3 588 053	1 860 228	3 962 040	9 321 393	3 713 625	1 808 122	3 799 646	1	1	2	1
	2002..	9 508 389	3 772 407	1 825 122	3 910 860	9 298 158	3 691 047	1 820 358	3 786 753	X	X	X	X
3211	Sawmills and wood preservation .....	3 283 410	1 487 675	804 739	990 996	3 316 570	1 526 974	787 716	1 001 880	2	2	3	4
	2002..	3 363 005	1 545 254	786 355	1 031 396	3 401 261	1 589 306	833 979	977 976	X	X	X	X
32111	Sawmills and wood preservation .....	3 283 410	1 487 675	804 739	990 996	3 316 570	1 526 974	787 716	1 001 880	2	2	3	4
	2002..	3 363 005	1 545 254	786 355	1 031 396	3 401 261	1 589 306	833 979	977 976	X	X	X	X
32111M	Sawmills and wood preservation .....	3 283 410	1 487 675	804 739	990 996	3 316 570	1 526 974	787 716	1 001 880	2	2	3	4
	2002..	3 363 005	1 545 254	786 355	1 031 396	3 401 261	1 589 306	833 979	977 976	X	X	X	X
3212	Veneer, plywood, and engineered wood product manufacturing .....	1 703 127	653 340	161 214	888 573	1 718 958	714 378	162 729	841 851	1	1	5	2
	2002..	1 772 680	724 244	170 021	878 415	1 709 468	696 855	152 459	860 154	X	X	X	X
32121	Veneer, plywood, and engineered wood product manufacturing .....	1 703 127	653 340	161 214	888 573	1 718 958	714 378	162 729	841 851	1	1	5	2
	2002..	1 772 680	724 244	170 021	878 415	1 709 468	696 855	152 459	860 154	X	X	X	X
321219	Reconstituted wood product manufacturing .....	435 193	172 854	27 024	235 315	454 866	187 428	33 231	234 207	1	1	13	1
	2002..	471 245	196 249	29 858	245 138	452 279	183 159	29 392	239 728	X	X	X	X
32121N	Veneer and plywood manufacturing .....	733 894	297 790	89 342	346 761	766 324	327 723	99 704	338 897	2	2	7	2
	2002..	789 224	338 945	104 070	346 209	780 784	324 247	92 892	363 645	X	X	X	X
32121P	Engineered wood product manufacturing .....	534 040	182 695	44 848	306 497	497 767	199 228	29 793	268 746	3	2	6	5
	2002..	512 211	189 050	36 093	287 068	476 405	189 449	30 175	256 781	X	X	X	X
3219	Other wood product manufacturing .....	4 423 784	1 447 039	894 274	2 082 471	4 285 865	1 472 273	857 677	1 955 915	1	1	2	2
	2002..	4 372 704	1 502 909	868 746	2 001 049	4 187 429	1 404 886	833 920	1 948 623	X	X	X	X
32191	Millwork .....	2 681 571	826 582	546 440	1 308 549	2 582 779	846 342	527 195	1 209 242	2	2	3	2
	2002..	2 572 643	847 781	528 603	1 196 259	2 417 073	780 699	508 314	1 128 060	X	X	X	X
32191M	Millwork .....	2 681 571	826 582	546 440	1 308 549	2 582 779	846 342	527 195	1 209 242	2	2	3	2
	2002..	2 572 643	847 781	528 603	1 196 259	2 417 073	780 699	508 314	1 128 060	X	X	X	X
32192	Wood container and pallet manufacturing .....	458 740	130 286	93 831	234 624	431 724	126 372	88 911	216 440	4	5	3	7
	2002..	455 092	138 879	93 299	222 914	448 387	114 809	94 115	239 463	X	X	X	X
321920	Wood container and pallet manufacturing .....	458 740	130 286	93 831	234 624	431 724	126 372	88 911	216 440	4	5	3	7
	2002..	455 092	138 879	93 299	222 914	448 387	114 809	94 115	239 463	X	X	X	X
32199	All other wood product manufacturing .....	1 283 472	490 171	254 004	539 297	1 271 363	499 558	241 571	530 233	2	2	3	2
	2002..	1 344 969	516 249	246 844	581 876	1 321 969	509 378	231 491	581 100	X	X	X	X
321991	Manufactured home (mobile home) manufacturing .....	290 534	53 782	56 156	180 596	303 843	54 072	55 917	193 854	2	2	2	2
	2002..	304 634	53 361	57 492	193 781	298 041	60 350	51 359	186 332	X	X	X	X
321992	Prefabricated wood building manufacturing .....	329 550	105 411	54 093	170 046	269 745	83 525	43 110	143 109	4	4	10	6
	2002..	304 094	87 371	45 232	171 491	294 042	83 001	44 351	166 699	X	X	X	X
321999	All other miscellaneous wood product manufacturing .....	663 389	330 978	143 755	188 656	697 775	361 961	142 544	193 270	2	3	3	3
	2002..	736 241	375 517	144 120	216 604	729 886	366 027	135 781	228 078	X	X	X	X

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		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.				
		A	B	C	D	E	F	G	H	A	B	C	D
322	Paper manufacturing .....	13 574 554	5 945 578	1 168 077	6 460 900	13 897 398	6 003 504	1 199 044	6 694 850	1	1	1	1
	2002..	14 297 755	6 156 258	1 231 100	6 910 397	14 042 579	6 113 529	1 196 646	6 732 404	X	X	X	X
3221	Pulp, paper, and paperboard mills .....	6 121 920	2 705 644	458 378	2 957 897	6 157 164	2 676 078	446 753	3 034 333	1	1	1	1
	2002..	6 517 534	2 837 399	481 339	3 198 796	5 958 876	2 678 752	455 581	2 824 543	X	X	X	X
32211	Pulp mills .....	472 508	234 863	16 397	221 248	508 454	255 376	16 484	236 594	1	1	2	1
	2002..	482 592	244 749	14 925	222 918	435 023	229 059	20 452	185 512	X	X	X	X
322110	Pulp mills .....	472 508	234 863	16 397	221 248	508 454	255 376	16 484	236 594	1	1	2	1
	2002..	482 592	244 749	14 925	222 918	435 023	229 059	20 452	185 512	X	X	X	X
32212	Paper mills .....	4 210 839	2 009 499	377 343	1 823 997	4 128 359	1 918 130	366 163	1 844 066	1	1	1	1
	2002..	4 526 947	2 099 091	404 315	2 023 541	4 109 968	1 971 580	376 779	1 761 609	X	X	X	X
32212M	Paper and newsprint mills .....	4 210 839	2 009 499	377 343	1 823 997	4 128 359	1 918 130	366 163	1 844 066	1	1	1	1
	2002..	4 526 947	2 099 091	404 315	2 023 541	4 109 968	1 971 580	376 779	1 761 609	X	X	X	X
32213	Paperboard mills .....	1 438 573	461 282	64 639	912 652	1 520 351	502 571	64 106	953 674	1	1	1	1
	2002..	1 507 995	493 559	62 099	952 337	1 413 885	478 113	58 350	877 422	X	X	X	X
322130	Paperboard mills .....	1 438 573	461 282	64 639	912 652	1 520 351	502 571	64 106	953 674	1	1	1	1
	2002..	1 507 995	493 559	62 099	952 337	1 413 885	478 113	58 350	877 422	X	X	X	X
3222	Converted paper product manufacturing .....	7 452 635	3 239 934	709 699	3 503 002	7 740 234	3 327 426	752 292	3 660 517	1	1	2	1
	2002..	7 780 221	3 318 859	749 761	3 711 601	8 083 703	3 434 777	741 065	3 907 861	X	X	X	X
32221	Paperboard container manufacturing .....	3 669 544	1 403 583	252 152	2 013 809	3 859 188	1 437 504	299 537	2 122 147	1	2	2	1
	2002..	3 905 099	1 433 753	305 295	2 166 051	3 996 489	1 434 331	282 946	2 279 212	X	X	X	X
32221M	Paperboard container manufacturing .....	3 669 544	1 403 583	252 152	2 013 809	3 859 188	1 437 504	299 537	2 122 147	1	2	2	1
	2002..	3 905 099	1 433 753	305 295	2 166 051	3 996 489	1 434 331	282 946	2 279 212	X	X	X	X
32222	Paper bag and coated and treated paper manufacturing .....	1 970 500	867 455	338 781	764 263	1 988 837	853 588	329 088	806 161	1	1	3	1
	2002..	1 974 926	855 586	314 735	804 605	2 039 659	906 641	329 865	803 153	X	X	X	X
32222N	Coated and laminated paper and packaging manufacturing .....	1 333 714	594 537	267 102	472 074	1 348 419	595 875	261 678	490 866	1	2	3	1
	2002..	1 331 217	600 214	246 879	484 124	1 379 822	621 106	253 650	505 066	X	X	X	X
32222P	Coated, uncoated, and multiwall bag and packaging manufacturing .....	636 786	272 918	71 679	292 189	640 419	257 714	67 410	315 295	1	2	1	1
	2002..	643 709	255 372	67 856	320 481	659 837	285 535	76 215	298 087	X	X	X	X
32223	Stationery product manufacturing .....	823 865	466 924	65 284	291 656	805 868	464 660	65 616	275 593	3	2	4	8
	2002..	874 847	514 856	65 848	294 143	967 344	589 936	56 608	320 800	X	X	X	X
32223M	Stationery product manufacturing .....	823 865	466 924	65 284	291 656	805 868	464 660	65 616	275 593	3	2	4	8
	2002..	874 847	514 856	65 848	294 143	967 344	589 936	56 608	320 800	X	X	X	X
32229	Other converted paper product manufacturing .....	988 726	501 971	53 482	433 274	1 086 341	571 674	58 051	456 617	1	1	14	2
	2002..	1 025 349	514 664	63 883	446 802	1 080 211	503 869	71 646	504 696	X	X	X	X
322291	Sanitary paper product manufacturing .....	571 443	307 821	37 319	226 303	635 934	363 764	35 345	236 825	1	1	1	2
	2002..	589 042	331 788	30 250	227 004	601 936	328 886	41 485	231 507	X	X	X	X
322299	All other converted paper product manufacturing .....	417 283	194 150	16 162	206 971	450 406	207 909	22 706	219 791	3	2	47	5
	2002..	436 307	182 876	33 633	219 798	478 333	174 983	30 161	273 189	X	X	X	X
323	Printing and related support activities .....	5 697 149	1 574 963	1 463 120	2 659 066	5 788 741	1 616 413	1 501 031	2 671 296	1	3	2	1
	2002..	5 809 345	1 590 262	1 495 304	2 723 779	5 840 785	1 626 110	1 494 673	2 720 002	X	X	X	X
3231	Printing and related support activities .....	5 697 149	1 574 963	1 463 120	2 659 066	5 788 741	1 616 413	1 501 031	2 671 296	1	3	2	1
	2002..	5 809 345	1 590 262	1 495 304	2 723 779	5 840 785	1 626 110	1 494 673	2 720 002	X	X	X	X
32311	Printing .....	5 393 886	1 468 083	1 340 654	2 585 149	5 506 186	1 532 337	1 376 705	2 597 145	1	3	2	1
	2002..	5 523 865	1 506 933	1 372 001	2 644 931	5 567 118	1 549 961	1 374 388	2 642 769	X	X	X	X
32311M	Printing .....	5 393 886	1 468 083	1 340 654	2 585 149	5 506 186	1 532 337	1 376 705	2 597 145	1	3	2	1
	2002..	5 523 865	1 506 933	1 372 001	2 644 931	5 567 118	1 549 961	1 374 388	2 642 769	X	X	X	X
32312	Support activities for printing .....	303 263	106 880	122 466	73 916	282 554	84 076	124 326	74 152	6	15	4	4
	2002..	285 480	83 329	123 303	78 848	273 667	76 149	120 285	77 233	X	X	X	X
32312M	Support activities for printing .....	303 263	106 880	122 466	73 916	282 554	84 076	124 326	74 152	6	15	4	4
	2002..	285 480	83 329	123 303	78 848	273 667	76 149	120 285	77 233	X	X	X	X
324	Petroleum and coal products manufacturing .....	15 895 299	7 643 497	3 229 816	5 021 986	13 606 862	6 526 652	3 410 232	3 669 978	1	1	1	1
	2002..	14 227 300	6 865 158	3 513 368	3 848 774	12 578 419	5 927 933	3 158 821	3 491 665	X	X	X	X
3241	Petroleum and coal products manufacturing .....	15 895 299	7 643 497	3 229 816	5 021 986	13 606 862	6 526 652	3 410 232	3 669 978	1	1	1	1
	2002..	14 227 300	6 865 158	3 513 368	3 848 774	12 578 419	5 927 933	3 158 821	3 491 665	X	X	X	X
32411	Petroleum refineries .....	14 230 904	6 750 755	3 113 862	4 366 287	12 037 207	5 670 972	3 291 197	3 075 038	1	1	1	1
	2002..	12 673 061	6 015 565	3 391 049	3 266 447	11 088 600	5 156 305	3 041 176	2 891 119	X	X	X	X
324110	Petroleum refineries .....	14 230 904	6 750 755	3 113 862	4 366 287	12 037 207	5 670 972	3 291 197	3 075 038	1	1	1	1
	2002..	12 673 061	6 015 565	3 391 049	3 266 447	11 088 600	5 156 305	3 041 176	2 891 119	X	X	X	X
32412	Asphalt paving, roofing, and saturated materials manufacturing .....	897 767	475 479	37 087	385 201	840 369	487 204	37 194	315 971	2	1	1	4
	2002..	825 459	476 270	36 823	312 366	755 295	409 608	22 227	323 460	X	X	X	X
324121	Asphalt paving mixture and block manufacturing .....	428 611	148 819	28 417	251 376	374 152	155 886	27 991	190 275	4	2	1	6
	2002..	401 314	171 424	28 867	201 023	390 131	154 688	15 555	219 888	X	X	X	X
324122	Asphalt shingle and coating materials manufacturing .....	469 156	326 660	8 671	133 826	466 217	331 318	9 203	125 696	1	1	5	2
	2002..	424 145	304 846	7 956	111 343	365 164	254 920	6 672	103 572	X	X	X	X

See footnotes at end of table.

**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.**

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—															
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.																
		A	B	C	D	E	F	G	H	A	B	C	D												
324	Petroleum and coal products manufacturing—Con.																								
3241	Petroleum and coal products manufacturing—Con.																								
32419	Other petroleum and coal products manufacturing	2003.. 766 627	417 263	78 867	270 497	729 286	368 476	81 840	278 970	2	2	1	4	2002.. 728 780	373 323	85 496	269 961	734 524	362 020	95 418	277 086	X	X	X	X
324191	Petroleum lubricating oil and grease manufacturing	2003.. 586 941	337 970	51 553	197 418	566 355	301 154	57 263	207 937	3	2	1	4	2002.. 557 389	301 047	60 633	195 709	534 754	285 017	62 242	187 495	X	X	X	X
324199	All other petroleum and coal products manufacturing	2003.. 179 686	79 293	27 313	73 079	162 932	67 322	24 577	71 033	3	1	1	7	2002.. 171 391	72 276	24 863	74 252	199 770	77 003	33 176	89 591	X	X	X	X
325	Chemical manufacturing	2003.. 49 579 301	23 787 289	10 078 677	15 713 335	48 095 912	23 108 196	9 070 698	15 917 018	1	1	2	2	2002.. 48 362 140	23 188 809	9 076 833	16 096 498	47 992 694	23 709 717	8 475 893	15 807 084	X	X	X	X
3251	Basic chemical manufacturing	2003.. 11 013 781	6 075 917	1 404 110	3 533 754	10 651 537	5 848 229	1 271 981	3 531 326	1	1	1	1	2002.. 10 667 354	5 834 106	1 287 617	3 545 631	10 712 462	6 038 327	1 086 767	3 587 368	X	X	X	X
32511	Petrochemical manufacturing	2003.. 1 019 376	545 514	148 175	325 687	843 754	427 783	79 078	336 893	1	1	3	1	2002.. 855 211	432 780	79 513	342 918	923 568	442 243	86 245	395 080	X	X	X	X
325110	Petrochemical manufacturing	2003.. 1 019 376	545 514	148 175	325 687	843 754	427 783	79 078	336 893	1	1	3	1	2002.. 855 211	432 780	79 513	342 918	923 568	442 243	86 245	395 080	X	X	X	X
32512	Industrial gas manufacturing	2003.. 358 203	186 147	65 646	106 410	313 119	164 729	54 517	93 874	1	1	1	1	2002.. 328 603	179 538	53 120	95 945	284 776	151 187	46 056	87 533	X	X	X	X
325120	Industrial gas manufacturing	2003.. 358 203	186 147	65 646	106 410	313 119	164 729	54 517	93 874	1	1	1	1	2002.. 328 603	179 538	53 120	95 945	284 776	151 187	46 056	87 533	X	X	X	X
32513	Synthetic dye and pigment manufacturing	2003.. 1 209 403	587 162	105 064	517 176	1 163 521	567 106	109 151	487 264	2	3	3	2	2002.. 1 220 595	595 314	126 990	498 291	1 233 802	624 243	117 145	492 414	X	X	X	X
32513M	Synthetic dye and pigment manufacturing	2003.. 1 209 403	587 162	105 064	517 176	1 163 521	567 106	109 151	487 264	2	3	3	2	2002.. 1 220 595	595 314	126 990	498 291	1 233 802	624 243	117 145	492 414	X	X	X	X
32518	Other basic inorganic chemical manufacturing	2003.. 1 936 585	934 882	383 558	618 145	1 963 472	958 153	342 985	662 334	1	1	1	1	2002.. 2 029 391	973 600	356 886	698 905	1 993 438	991 446	273 857	728 135	X	X	X	X
325181	Alkalies and chlorine manufacturing	2003.. 205 995	97 176	1 889	106 930	211 802	98 824	2 462	110 516	1	3	1	1	2002.. 228 380	102 602	2 405	123 373	213 683	91 253	1 893	120 537	X	X	X	X
325182	Carbon black manufacturing	2003.. 124 207	66 233	22	57 952	115 795	68 643	22	47 130	1	2	1	1	2002.. 117 848	72 678	22	45 148	118 828	69 267	55	49 506	X	X	X	X
325188	All other basic inorganic chemical manufacturing	2003.. 1 606 383	771 473	381 647	453 263	1 635 875	790 686	340 501	504 688	1	1	1	2	2002.. 1 683 163	798 320	354 459	530 384	1 660 927	830 926	271 909	558 092	X	X	X	X
32519	Other basic organic chemical manufacturing	2003.. 6 490 213	3 822 212	701 666	1 966 335	6 367 671	3 730 459	686 251	1 950 961	1	1	1	1	2002.. 6 233 554	3 652 874	671 108	1 909 572	6 276 878	3 829 208	563 464	1 884 206	X	X	X	X
32519M	Other basic organic chemical manufacturing	2003.. 6 490 213	3 822 212	701 666	1 966 335	6 367 671	3 730 459	686 251	1 950 961	1	1	1	1	2002.. 6 233 554	3 652 874	671 108	1 909 572	6 276 878	3 829 208	563 464	1 884 206	X	X	X	X
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	2003.. 6 682 658	4 251 275	707 588	1 723 795	6 617 294	4 230 580	651 604	1 735 110	1	1	1	1	2002.. 6 748 608	4 351 848	607 934	1 788 826	6 484 284	4 088 289	634 474	1 761 521	X	X	X	X
32521	Resin and synthetic rubber manufacturing	2003.. 5 782 563	3 730 948	579 333	1 472 282	5 684 472	3 679 622	520 658	1 484 192	1	1	1	1	2002.. 5 818 732	3 796 317	486 110	1 536 305	5 544 364	3 554 994	514 895	1 474 475	X	X	X	X
325211	Plastics material and resin manufacturing	2003.. 4 886 798	3 128 885	474 131	1 283 782	4 856 513	3 139 900	417 630	1 298 983	1	1	1	2	2002.. 5 016 795	3 237 123	423 440	1 356 232	4 748 454	3 015 321	426 505	1 306 628	X	X	X	X
325212	Synthetic rubber manufacturing	2003.. 895 766	602 063	105 202	188 500	827 959	539 722	103 028	185 209	1	1	1	1	2002.. 801 937	559 194	62 670	180 073	795 910	539 673	88 390	167 847	X	X	X	X
32522	Artificial and synthetic fibers and filaments manufacturing	2003.. 900 095	520 327	128 254	251 513	932 822	550 958	130 946	250 918	1	1	1	1	2002.. 929 876	555 531	121 824	252 521	939 920	533 295	119 579	287 046	X	X	X	X
32522M	Artificial and synthetic fibers and filaments manufacturing	2003.. 900 095	520 327	128 254	251 513	932 822	550 958	130 946	250 918	1	1	1	1	2002.. 929 876	555 531	121 824	252 521	939 920	533 295	119 579	287 046	X	X	X	X
3253	Pesticide, fertilizer, and other agricultural chemical manufacturing	2003.. 2 197 094	1 028 513	408 284	760 297	2 218 278	1 005 806	417 351	795 121	1	1	1	1	2002.. 2 222 177	1 010 538	412 999	798 640	2 487 920	1 132 452	466 842	888 626	X	X	X	X
32531	Fertilizer manufacturing	2003.. 1 237 014	570 491	149 177	517 346	1 218 893	547 680	178 600	492 613	1	2	1	1	2002.. 1 235 373	559 078	174 807	501 488	1 276 323	584 801	172 144	519 378	X	X	X	X
325311	Nitrogenous fertilizer manufacturing	2003.. 345 222	179 154	5 994	160 074	336 837	159 508	6 366	170 963	2	3	1	3	2002.. 330 403	154 030	6 262	170 111	400 863	216 059	5 226	179 578	X	X	X	X
325312	Phosphatic fertilizer manufacturing	2003.. 524 737	181 086	115 909	227 743	538 751	195 263	144 739	198 749	1	1	1	1	2002.. 529 932	194 698	140 479	194 755	494 364	146 173	143 256	204 935	X	X	X	X
325314	Fertilizer (mixing only) manufacturing	2003.. 367 056	210 252	27 274	129 530	343 305	192 909	27 495	122 901	3	4	3	4	2002.. 375 038	210 350	28 066	136 622	381 096	222 569	23 662	134 865	X	X	X	X

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**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.**

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		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D					
		A	B	C	D	E	F	G	H	A	B	C	D					
325	Chemical manufacturing—Con.																	
3253	Pesticide, fertilizer, and other agricultural chemical manufacturing—Con.																	
32532	Pesticide and other agricultural chemical manufacturing .....	2003.. 960 080	458 022	259 108	242 951	999 385	458 126	238 751	302 508	1	2	1	3					
		2002.. 986 804	451 460	238 192	297 152	1 211 597	547 651	294 698	369 248	X	X	X	X					
325320	Pesticide and other agricultural chemical manufacturing .....	2003.. 960 080	458 022	259 108	242 951	999 385	458 126	238 751	302 508	1	2	1	3					
		2002.. 986 804	451 460	238 192	297 152	1 211 597	547 651	294 698	369 248	X	X	X	X					
3254	Pharmaceutical and medicine manufacturing .....	2003.. 18 361 724	6 557 749	6 415 749	5 388 225	17 387 889	6 123 646	5 552 221	5 712 021	1	4	3	7					
		2002.. 17 493 720	6 134 114	5 585 267	5 774 339	16 756 218	6 430 047	5 098 270	5 227 901	X	X	X	X					
32541	Pharmaceutical and medicine manufacturing .....	2003.. 18 361 724	6 557 749	6 415 749	5 388 225	17 387 889	6 123 646	5 552 221	5 712 021	1	4	3	7					
		2002.. 17 493 720	6 134 114	5 585 267	5 774 339	16 756 218	6 430 047	5 098 270	5 227 901	X	X	X	X					
325411	Medicinal and botanical manufacturing .....	2003.. 1 671 011	607 734	513 677	549 601	1 613 159	653 983	506 121	453 055	1	1	1	2					
		2002.. 1 690 602	694 284	532 720	463 598	1 643 949	700 722	500 580	442 647	X	X	X	X					
325412	Pharmaceutical preparation manufacturing .....	2003.. 12 856 178	4 484 809	4 332 944	4 038 424	12 055 073	4 078 812	3 532 749	4 443 512	2	6	4	9					
		2002.. 12 098 390	4 056 070	3 547 012	4 495 308	11 750 898	4 519 479	3 210 952	4 020 467	X	X	X	X					
325413	In-vitro diagnostic substance manufacturing .....	2003.. 1 150 195	482 466	253 338	414 392	1 141 248	504 294	251 333	385 621	1	1	1	2					
		2002.. 1 135 065	502 663	246 947	385 455	1 167 196	536 853	264 068	366 275	X	X	X	X					
325414	Biological product (except diagnostic) manufacturing .....	2003.. 2 684 340	982 740	1 315 791	385 808	2 578 409	886 557	1 262 018	429 834	1	4	2	1					
		2002.. 2 569 663	881 097	1 258 588	429 978	2 194 175	672 993	1 122 670	398 512	X	X	X	X					
3255	Paint, coating, and adhesive manufacturing .....	2003.. 2 472 378	1 419 532	131 564	921 281	2 396 044	1 383 325	107 814	904 905	1	2	6	2					
		2002.. 2 402 900	1 351 872	135 049	915 979	2 455 679	1 389 156	134 046	932 477	X	X	X	X					
32551	Paint and coating manufacturing .....	2003.. 1 695 596	995 687	71 095	628 814	1 704 131	1 005 106	60 657	638 368	1	2	7	1					
		2002.. 1 723 306	995 744	78 455	649 107	1 799 615	1 057 401	79 188	663 026	X	X	X	X					
325510	Paint and coating manufacturing .....	2003.. 1 695 596	995 687	71 095	628 814	1 704 131	1 005 106	60 657	638 368	1	2	7	1					
		2002.. 1 723 306	995 744	78 455	649 107	1 799 615	1 057 401	79 188	663 026	X	X	X	X					
32552	Adhesive manufacturing .....	2003.. 776 782	423 846	60 470	292 467	691 913	378 218	47 157	266 537	4	5	9	5					
		2002.. 679 594	356 128	56 594	266 872	656 064	331 755	54 858	269 451	X	X	X	X					
325520	Adhesive manufacturing .....	2003.. 776 782	423 846	60 470	292 467	691 913	378 218	47 157	266 537	4	5	9	5					
		2002.. 679 594	356 128	56 594	266 872	656 064	331 755	54 858	269 451	X	X	X	X					
3256	Soap, cleaning compound, and toilet preparation manufacturing .....	2003.. 4 881 808	2 580 095	359 959	1 941 754	4 716 612	2 581 829	355 213	1 779 570	2	2	2	4					
		2002.. 4 772 747	2 586 750	353 769	1 832 228	4 841 425	2 714 149	304 170	1 823 106	X	X	X	X					
32561	Soap and cleaning compound manufacturing .....	2003.. 1 960 712	1 209 140	131 138	620 434	1 943 643	1 211 108	125 622	606 913	2	3	3	3					
		2002.. 1 911 870	1 189 449	126 625	595 796	1 968 194	1 249 569	115 845	602 780	X	X	X	X					
32561M	Soap and cleaning compound manufacturing .....	2003.. 1 960 712	1 209 140	131 138	620 434	1 943 643	1 211 108	125 622	606 913	2	3	3	3					
		2002.. 1 911 870	1 189 449	126 625	595 796	1 968 194	1 249 569	115 845	602 780	X	X	X	X					
32562	Toilet preparation manufacturing .....	2003.. 2 921 095	1 370 954	228 821	1 321 320	2 772 969	1 370 721	229 591	1 172 657	4	4	2	5					
		2002.. 2 860 877	1 397 301	227 144	1 236 432	2 873 231	1 464 580	188 325	1 220 326	X	X	X	X					
325620	Toilet preparation manufacturing .....	2003.. 2 921 095	1 370 954	228 821	1 321 320	2 772 969	1 370 721	229 591	1 172 657	4	4	2	5					
		2002.. 2 860 877	1 397 301	227 144	1 236 432	2 873 231	1 464 580	188 325	1 220 326	X	X	X	X					
3259	Other chemical product and preparation manufacturing .....	2003.. 3 969 859	1 874 208	651 423	1 444 228	4 108 257	1 934 781	714 513	1 458 964	1	1	3	2					
		2002.. 4 054 634	1 919 581	694 198	1 440 855	4 254 706	1 917 297	751 324	1 586 085	X	X	X	X					
32591	Printing ink manufacturing .....	2003.. 425 148	243 978	A	166 232	454 669	258 438	46 122	150 109	3	4	A	11					
		2002.. 433 817	244 390	35 681	153 746	423 062	237 959	26 117	158 986	X	X	X	X					
325910	Printing ink manufacturing .....	2003.. 425 148	243 978	A	166 232	454 669	258 438	46 122	150 109	3	4	A	11					
		2002.. 433 817	244 390	35 681	153 746	423 062	237 959	26 117	158 986	X	X	X	X					
32592	Explosives manufacturing .....	2003.. 126 530	39 993	35 392	51 146	117 236	38 171	30 740	48 325	7	9	19	11					
		2002.. 118 826	39 170	29 718	49 938	128 194	45 911	35 909	46 374	X	X	X	X					
325920	Explosives manufacturing .....	2003.. 126 530	39 993	35 392	51 146	117 236	38 171	30 740	48 325	7	9	19	11					
		2002.. 118 826	39 170	29 718	49 938	128 194	45 911	35 909	46 374	X	X	X	X					
32599	All other chemical product and preparation manufacturing .....	2003.. 3 418 181	1 590 237	601 094	1 226 850	3 536 352	1 638 172	637 651	1 260 529	1	1	1	1					
		2002.. 3 501 991	1 636 021	628 799	1 237 171	3 703 450	1 633 427	689 298	1 380 725	X	X	X	X					
325991	Custom compounding of purchased resins .....	2003.. 891 501	455 699	64 026	371 776	911 281	474 785	61 349	375 148	1	1	7	1					
		2002.. 873 298	458 134	60 413	354 751	784 014	392 713	60 139	331 162	X	X	X	X					
32599N	All other miscellaneous chemical product and preparation manufacturing (including photographic) .....	2003.. 2 526 680	1 134 538	537 068	855 074	2 625 071	1 163 387	576 303	885 381	1	2	1	2					
		2002.. 2 628 693	1 177 887	568 386	882 420	2 919 436	1 240 714	629 159	1 049 563	X	X	X	X					

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		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.					
		A	B	C	D	E	F	G	H	A	B	C	D	
326	Plastics and rubber products manufacturing .....	2003..	16 059 126	7 962 232	1 833 450	6 263 444	15 611 008	7 814 215	1 833 141	5 963 653	1	1	2	1
		2002..	15 755 290	7 863 424	1 853 128	6 038 738	15 495 021	7 632 922	1 940 749	5 921 350	X	X	X	X
3261	Plastics product manufacturing .....	2003..	13 328 607	6 636 608	1 477 098	5 214 901	12 905 027	6 434 756	1 492 469	4 977 803	1	1	3	1
		2002..	12 998 069	6 460 763	1 512 718	5 024 588	12 650 450	6 249 068	1 576 633	4 824 749	X	X	X	X
32611	Unsupported plastics film, sheet, and bag manufacturing .....	2003..	2 910 979	1 438 069	336 772	1 136 138	2 786 894	1 363 305	344 430	1 079 159	1	1	2	2
		2002..	2 823 905	1 367 945	345 783	1 110 177	2 706 998	1 321 334	368 350	1 017 314	X	X	X	X
326111	Plastics bag manufacturing .....	2003..	708 654	373 055	62 988	272 611	677 210	357 099	60 410	259 701	1	1	3	2
		2002..	656 193	340 262	59 222	256 709	617 107	315 237	67 108	234 762	X	X	X	X
326112	Plastics packaging film and sheet (including laminated) manufacturing .....	2003..	884 634	463 260	113 942	307 433	828 748	424 822	109 216	294 710	2	2	3	3
		2002..	786 534	409 314	102 168	275 052	755 612	417 406	100 317	237 889	X	X	X	X
326113	Unlaminated plastics film and sheet (except packaging) manufacturing .....	2003..	1 317 690	601 754	159 842	556 094	1 280 935	581 384	174 804	524 747	2	2	2	3
		2002..	1 381 178	618 369	184 393	578 416	1 334 279	588 691	200 925	544 663	X	X	X	X
32612	Plastics pipe, pipe fitting, and unsupported profile shape manufacturing .....	2003..	1 417 945	814 181	117 077	486 687	1 351 279	792 690	122 589	436 000	1	1	4	2
		2002..	1 363 732	798 993	121 305	443 434	1 361 213	835 079	107 219	418 915	X	X	X	X
326121	Unsupported plastics profile shape manufacturing .....	2003..	518 310	230 431	81 887	205 991	535 989	238 163	75 597	222 230	1	2	2	2
		2002..	520 355	229 618	72 916	217 821	492 607	223 650	63 019	205 938	X	X	X	X
326122	Plastics pipe and pipe fitting manufacturing .....	2003..	899 636	583 750	35 190	280 695	815 290	554 527	46 993	213 770	1	1	14	3
		2002..	843 377	569 375	48 389	225 613	868 606	611 429	44 200	212 977	X	X	X	X
32613	Laminated plastics plate, sheet, and shape manufacturing .....	2003..	287 047	113 008	45 029	129 009	280 272	108 943	47 697	123 633	3	2	4	4
		2002..	284 687	106 565	51 596	126 526	292 087	111 214	49 046	131 827	X	X	X	X
326130	Laminated plastics plate, sheet, and shape manufacturing .....	2003..	287 047	113 008	45 029	129 009	280 272	108 943	47 697	123 633	3	2	4	4
		2002..	284 687	106 565	51 596	126 526	292 087	111 214	49 046	131 827	X	X	X	X
32614	Polystyrene foam product manufacturing .....	2003..	587 739	311 847	52 228	223 664	536 298	302 596	42 591	191 111	2	2	6	4
		2002..	552 473	311 476	48 649	192 348	511 018	297 323	45 675	168 020	X	X	X	X
326140	Polystyrene foam product manufacturing .....	2003..	587 739	311 847	52 228	223 664	536 298	302 596	42 591	191 111	2	2	6	4
		2002..	552 473	311 476	48 649	192 348	511 018	297 323	45 675	168 020	X	X	X	X
32615	Urethane and other foam product (except polystyrene) manufacturing .....	2003..	414 465	138 026	49 629	226 810	414 170	134 597	56 129	223 443	3	3	10	5
		2002..	408 462	127 179	53 315	227 968	393 288	123 726	49 424	220 138	X	X	X	X
326150	Urethane and other foam product (except polystyrene) manufacturing .....	2003..	414 465	138 026	49 629	226 810	414 170	134 597	56 129	223 443	3	3	10	5
		2002..	408 462	127 179	53 315	227 968	393 288	123 726	49 424	220 138	X	X	X	X
32616	Plastics bottle manufacturing .....	2003..	756 546	407 296	56 488	292 761	734 271	419 725	59 166	255 380	2	3	4	2
		2002..	760 895	438 081	63 826	258 988	703 496	373 354	66 830	263 312	X	X	X	X
326160	Plastics bottle manufacturing .....	2003..	756 546	407 296	56 488	292 761	734 271	419 725	59 166	255 380	2	3	4	2
		2002..	760 895	438 081	63 826	258 988	703 496	373 354	66 830	263 312	X	X	X	X
32619	Other plastics product manufacturing .....	2003..	6 953 887	3 414 180	819 874	2 719 833	6 801 844	3 312 900	819 866	2 669 078	1	1	5	1
		2002..	6 803 915	3 310 524	828 244	2 665 147	6 682 350	3 187 038	890 089	2 605 223	X	X	X	X
32619M	Other plastics product manufacturing .....	2003..	6 953 887	3 414 180	819 874	2 719 833	6 801 844	3 312 900	819 866	2 669 078	1	1	5	1
		2002..	6 803 915	3 310 524	828 244	2 665 147	6 682 350	3 187 038	890 089	2 605 223	X	X	X	X
3262	Rubber product manufacturing .....	2003..	2 730 519	1 325 624	356 352	1 048 543	2 705 981	1 379 459	340 672	985 850	1	1	3	1
		2002..	2 757 221	1 402 661	340 410	1 014 150	2 844 571	1 383 854	364 116	1 096 601	X	X	X	X
32621	Tire manufacturing .....	2003..	1 155 158	591 247	125 474	438 437	1 126 436	623 972	112 871	389 594	1	1	3	1
		2002..	1 122 523	624 027	112 837	385 659	1 191 857	624 868	121 690	445 299	X	X	X	X
32621M	Tire manufacturing .....	2003..	1 155 158	591 247	125 474	438 437	1 126 436	623 972	112 871	389 594	1	1	3	1
		2002..	1 122 523	624 027	112 837	385 659	1 191 857	624 868	121 690	445 299	X	X	X	X
32622	Rubber and plastics hoses and belting manufacturing .....	2003..	489 667	292 556	51 166	145 944	498 628	312 052	53 124	133 451	2	3	3	2
		2002..	503 557	311 913	55 820	135 824	510 951	308 006	61 444	141 501	X	X	X	X
326220	Rubber and plastics hoses and belting manufacturing .....	2003..	489 667	292 556	51 166	145 944	498 628	312 052	53 124	133 451	2	3	3	2
		2002..	503 557	311 913	55 820	135 824	510 951	308 006	61 444	141 501	X	X	X	X
32629	Other rubber product manufacturing .....	2003..	1 085 695	441 821	179 712	464 162	1 080 917	443 435	174 677	462 805	2	2	5	1
		2002..	1 131 141	466 721	171 753	492 667	1 141 763	450 980	180 982	509 801	X	X	X	X
32629M	Other rubber product manufacturing .....	2003..	1 085 695	441 821	179 712	464 162	1 080 917	443 435	174 677	462 805	2	2	5	1
		2002..	1 131 141	466 721	171 753	492 667	1 141 763	450 980	180 982	509 801	X	X	X	X

See footnotes at end of table.

**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—				
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.					
		A	B	C	D	E	F	G	H	A	B	C	D	
327	Nonmetallic mineral product manufacturing .....	2003..	9 463 921	4 763 309	1 179 676	3 520 936	9 487 107	4 776 497	1 219 716	3 490 893	1	1	1	1
		2002..	9 502 125	4 777 382	1 244 769	3 479 974	9 303 675	4 663 301	1 202 551	3 437 823	X	X	X	X
3271	Clay product and refractory manufacturing .....	2003..	1 257 080	730 927	173 708	352 446	1 271 879	740 100	182 285	349 494	1	2	1	1
		2002..	1 306 123	766 490	187 756	351 877	1 246 576	713 814	186 222	346 540	X	X	X	X
32711	Pottery, ceramics, and plumbing fixture manufacturing .....	2003..	442 514	211 688	104 857	125 969	449 716	210 574	112 821	126 321	1	2	1	1
		2002..	476 780	227 418	118 625	130 737	470 538	214 471	119 755	136 312	X	X	X	X
327111	Vitreous china plumbing fixture and china and earthenware bathroom accessories manufacturing .....	2003..	91 102	59 866	10 545	20 691	75 073	46 346	11 353	17 374	2	3	3	1
		2002..	89 391	54 987	14 882	19 522	79 028	44 727	15 952	18 349	X	X	X	X
327112	Vitreous china, fine earthenware, and other pottery product manufacturing .....	2003..	184 983	90 004	41 706	53 274	186 160	90 603	42 753	52 804	2	3	2	1
		2002..	194 721	97 272	43 850	53 599	202 295	98 539	48 255	55 501	X	X	X	X
327113	Porcelain electrical supply manufacturing .....	2003..	166 429	61 819	52 606	52 005	188 483	73 625	58 715	56 144	2	2	2	2
		2002..	192 668	75 159	59 893	57 616	189 215	71 205	55 548	62 462	X	X	X	X
32712	Clay building material and refractories manufacturing .....	2003..	814 566	519 239	68 850	226 477	822 163	529 526	69 464	223 173	1	2	2	1
		2002..	829 343	539 072	69 131	221 140	776 038	499 343	66 467	210 228	X	X	X	X
327121	Brick and structural clay tile manufacturing .....	2003..	318 663	256 240	12 184	50 238	323 955	261 445	12 228	50 282	2	3	3	3
		2002..	332 781	270 351	12 353	50 077	287 271	225 902	10 617	50 752	X	X	X	X
327122	Ceramic wall and floor tile manufacturing .....	2003..	141 045	90 997	9 821	40 227	138 347	87 728	10 205	40 414	2	2	4	1
		2002..	137 754	85 893	10 626	41 235	133 481	85 883	8 471	39 127	X	X	X	X
327123	Other structural clay product manufacturing .....	2003..	38 661	29 619	1 516	7 526	37 871	27 068	2 853	7 950	1	1	1	1
		2002..	35 970	25 557	2 689	7 724	31 307	23 002	2 395	5 910	X	X	X	X
32712N	Refractory manufacturing .....	2003..	316 198	142 383	45 329	128 486	321 990	153 285	44 178	124 527	3	6	3	2
		2002..	322 838	157 271	43 463	122 104	323 979	164 556	44 984	114 439	X	X	X	X
3272	Glass and glass product manufacturing .....	2003..	2 794 934	1 613 154	331 147	850 634	2 776 366	1 594 601	339 700	842 065	1	1	4	1
		2002..	2 761 589	1 575 924	348 512	837 153	2 838 357	1 648 003	341 422	848 932	X	X	X	X
32721	Glass and glass product manufacturing .....	2003..	2 794 934	1 613 154	331 147	850 634	2 776 366	1 594 601	339 700	842 065	1	1	4	1
		2002..	2 761 589	1 575 924	348 512	837 153	2 838 357	1 648 003	341 422	848 932	X	X	X	X
327211	Flat glass manufacturing .....	2003..	290 126	201 910	28 656	59 560	295 412	31 836	64 571	1 2	1	1	1	
		2002..	295 445	199 004	31 839	64 602	315 133	216 187	34 946	64 000	X	X	X	X
327212	Other pressed and blown glass and glassware manufacturing .....	2003..	823 527	472 659	117 025	233 843	843 167	485 904	100 759	256 504	1	1	2	1
		2002..	828 487	476 150	101 681	250 656	942 146	560 534	104 090	277 522	X	X	X	X
327213	Glass container manufacturing .....	2003..	680 400	547 668	1 005	131 726	636 225	513 568	1 148	121 509	2	3	11	2
		2002..	638 566	515 297	1 127	122 142	630 337	516 118	1 110	113 109	X	X	X	X
327215	Glass product manufacturing made of purchased glass .....	2003..	1 000 882	390 916	184 461	425 504	1 001 562	396 124	205 958	399 481	2	3	7	3
		2002..	999 091	385 473	213 865	399 753	950 741	355 164	201 276	394 301	X	X	X	X
3273	Cement and concrete product manufacturing .....	2003..	3 507 426	1 641 996	361 628	1 503 801	3 481 912	1 636 257	373 898	1 471 757	1	2	2	2
		2002..	3 481 268	1 644 482	371 316	1 465 470	3 297 151	1 551 694	349 574	1 395 883	X	X	X	X
32731	Cement manufacturing .....	2003..	1 134 753	269 049	207 443	658 261	1 181 936	294 785	218 719	668 432	1	1	1	1
		2002..	1 177 876	294 430	218 461	664 985	1 098 474	262 392	218 719	641 640	X	X	X	X
327310	Cement manufacturing .....	2003..	1 134 753	269 049	207 443	658 261	1 181 936	294 785	218 719	668 432	1	1	1	1
		2002..	1 177 876	294 430	218 461	664 985	1 098 474	262 392	218 719	641 640	X	X	X	X
32732	Ready-mix concrete manufacturing .....	2003..	652 751	146 238	18 085	488 428	654 472	153 594	20 294	480 583	5	12	7	5
		2002..	667 869	167 669	20 548	479 652	608 650	158 656	17 316	432 678	X	X	X	X
327320	Ready-mix concrete manufacturing .....	2003..	652 751	146 238	18 085	488 428	654 472	153 594	20 294	480 583	5	12	7	5
		2002..	667 869	167 669	20 548	479 652	608 650	158 656	17 316	432 678	X	X	X	X
32733	Concrete pipe, brick, and block manufacturing .....	2003..	833 776	670 845	25 064	137 867	822 959	675 777	26 206	120 976	2	2	4	2
		2002..	809 411	670 609	19 822	118 980	767 188	627 267	23 824	116 097	X	X	X	X
32733M	Concrete pipe, brick, and block manufacturing .....	2003..	833 776	670 845	25 064	137 867	822 959	675 777	26 206	120 976	2	2	4	2
		2002..	809 411	670 609	19 822	118 980	767 188	627 267	23 824	116 097	X	X	X	X
32739	Other concrete product manufacturing .....	2003..	886 146	555 864	111 036	219 245	822 545	512 101	108 679	201 766	2	2	7	3
		2002..	826 112	511 774	112 485	201 853	822 839	503 379	113 992	205 468	X	X	X	X
327390	Other concrete product manufacturing .....	2003..	886 146	555 864	111 036	219 245	822 545	512 101	108 679	201 766	2	2	7	3
		2002..	826 112	511 774	112 485	201 853	822 839	503 379	113 992	205 468	X	X	X	X
3274	Lime and gypsum product manufacturing .....	2003..	303 990	93 718	14 376	195 897	308 845	96 308	14 849	197 687	2	2	6	2
		2002..	328 695	98 851	17 841	212 003	340 889	99 490	22 475	218 924	X	X	X	X
32741	Lime manufacturing .....	2003..	69 996	17 287	4 914	47 795	76 935	20 387	5 798	50 750	4	6	9	4
		2002..	89 965	21 392	7 739	60 834	100 674	21 914	6 729	72 031	X	X	X	X
327410	Lime manufacturing .....	2003..	69 996	17 287	4 914	47 795	76 935	20 387	5 798	50 750	4	6	9	4
		2002..	89 965	21 392	7 739	60 834	100 674	21 914	6 729	72 031	X	X	X	X

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—								
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.									
		A	B	C	D	E	F	G	H	A	B	C	D					
327	Nonmetallic mineral product manufacturing—Con.																	
3274	Lime and gypsum product manufacturing—Con.																	
32742	Gypsum product manufacturing . . . . .	233 995	76 431	9 462	148 102	231 910	75 921	9 051	146 938	2	2	7	2					
	2002..	238 730	77 459	10 102	151 169	240 215	77 576	15 746	146 893	X	X	X	X					
327420	Gypsum product manufacturing . . . . .	233 995	76 431	9 462	148 102	231 910	75 921	9 051	146 938	2	2	7	2					
	2002..	238 730	77 459	10 102	151 169	240 215	77 576	15 746	146 893	X	X	X	X					
3279	Other nonmetallic mineral product manufacturing . . . . .	1 600 489	683 514	298 817	618 158	1 648 105	709 232	308 983	629 890	1	2	2	2					
	2002..	1 624 450	691 635	319 344	613 471	1 580 702	650 300	302 858	627 544	X	X	X	X					
32791	Abrasive product manufacturing . . . . .	518 542	153 928	211 307	153 307	557 466	169 674	216 300	171 993	2	4	1	4					
	2002..	555 801	168 373	222 152	165 276	539 747	163 354	204 394	171 999	X	X	X	X					
327910	Abrasive product manufacturing . . . . .	518 542	153 928	211 307	153 307	557 466	169 674	216 300	171 993	2	4	1	4					
	2002..	555 801	168 373	222 152	165 276	539 747	163 354	204 394	171 999	X	X	X	X					
32799	All other nonmetallic mineral product manufacturing . . . . .	1 081 948	529 586	87 510	464 852	1 090 638	539 557	92 684	458 397	2	2	5	2					
	2002..	1 068 649	523 262	97 192	448 195	1 040 955	486 946	98 464	455 545	X	X	X	X					
327991	Cut stone and stone product manufacturing . . . . .	299 178	145 704	38 980	114 494	298 709	148 665	40 836	109 209	2	3	5	2					
	2002..	292 218	142 051	41 251	108 916	265 713	129 637	39 488	96 588	X	X	X	X					
327992	Ground or treated mineral and earth manufacturing . . . . .	281 803	105 656	27 337	148 810	261 616	100 699	23 920	136 997	2	3	5	3					
	2002..	240 525	90 251	24 370	125 904	241 514	80 322	23 306	137 886	X	X	X	X					
327993	Mineral wool manufacturing . . . . .	342 647	199 638	17 107	125 902	382 777	216 587	19 538	146 652	3	3	5	3					
	2002..	387 894	220 365	20 261	147 268	389 729	206 105	22 537	161 087	X	X	X	X					
327999	All other miscellaneous nonmetallic mineral product manufacturing . . . . .	158 319	78 588	4 086	75 645	147 536	73 606	8 390	65 540	8	7	81	11					
	2002..	148 012	70 595	11 310	66 107	143 999	70 882	13 133	59 984	X	X	X	X					
331	Primary metal manufacturing . . . . .	18 231 006	6 198 859	5 812 731	6 219 416	19 313 117	6 219 388	6 342 901	6 750 827	1	1	1	1					
	2002..	19 618 536	6 319 977	6 443 151	6 855 408	19 605 401	6 383 004	6 442 632	6 779 765	X	X	X	X					
3311	Iron and steel mills and ferroalloy manufacturing . . . . .	7 115 037	2 504 250	2 118 189	2 492 598	8 081 324	2 602 644	2 603 271	2 875 408	1	1	1	1					
	2002..	8 195 724	2 674 731	2 616 345	2 904 648	8 104 652	2 780 385	2 608 109	2 716 158	X	X	X	X					
33111	Iron and steel mills and ferroalloy manufacturing . . . . .	7 115 037	2 504 250	2 118 189	2 492 598	8 081 324	2 602 644	2 603 271	2 875 408	1	1	1	1					
	2002..	8 195 724	2 674 731	2 616 345	2 904 648	8 104 652	2 780 385	2 608 109	2 716 158	X	X	X	X					
33111M	Iron and steel mills and ferroalloy manufacturing . . . . .	7 115 037	2 504 250	2 118 189	2 492 598	8 081 324	2 602 644	2 603 271	2 875 408	1	1	1	1					
	2002..	8 195 724	2 674 731	2 616 345	2 904 648	8 104 652	2 780 385	2 608 109	2 716 158	X	X	X	X					
3312	Steel product manufacturing from purchased steel . . . . .	2 443 734	908 577	597 990	937 166	2 609 362	951 263	641 642	1 016 458	1	1	2	2					
	2002..	2 710 595	973 914	677 966	1 058 715	2 504 153	939 048	681 535	883 570	X	X	X	X					
33121	Iron and steel pipe and tube manufacturing from purchased steel . . . . .	906 549	360 242	143 115	403 192	974 204	372 506	155 406	446 293	2	2	2	3					
	2002..	990 716	365 421	157 431	467 864	940 962	344 657	191 801	404 504	X	X	X	X					
331210	Iron and steel pipe and tube manufacturing from purchased steel . . . . .	906 549	360 242	143 115	403 192	974 204	372 506	155 406	446 293	2	2	2	3					
	2002..	990 716	365 421	157 431	467 864	940 962	344 657	191 801	404 504	X	X	X	X					
33122	Rolling and drawing of purchased steel . . . . .	1 537 184	548 335	454 875	533 974	1 635 158	578 756	486 237	570 165	2	1	3	3					
	2002..	1 719 879	608 493	520 535	590 851	1 563 191	594 391	489 734	479 066	X	X	X	X					
33122M	Rolling and drawing of purchased steel . . . . .	1 537 184	548 335	454 875	533 974	1 635 158	578 756	486 237	570 165	2	1	3	3					
	2002..	1 719 879	608 493	520 535	590 851	1 563 191	594 391	489 734	479 066	X	X	X	X					
3313	Alumina and aluminum production and processing . . . . .	3 030 740	833 620	1 104 858	1 092 262	2 935 283	751 463	996 681	1 187 139	1	1	1	1					
	2002..	3 013 526	788 873	1 023 261	1 201 392	3 075 869	723 931	940 889	1 411 049	X	X	X	X					
33131	Alumina and aluminum production and processing . . . . .	3 030 740	833 620	1 104 858	1 092 262	2 935 283	751 463	996 681	1 187 139	1	1	1	1					
	2002..	3 013 526	788 873	1 023 261	1 201 392	3 075 869	723 931	940 889	1 411 049	X	X	X	X					
331311	Alumina refining . . . . .	101 071	26 254	38 498	36 318	102 238	25 534	33 988	42 716	3	13	1	1					
	2002..	110 091	29 547	36 859	43 685	110 044	26 668	32 863	50 513	X	X	X	X					
331312	Primary aluminum production . . . . .	539 559	61 157	121 540	356 862	552 488	53 887	147 025	351 576	1	1	1	1					
	2002..	648 262	83 203	196 141	368 918	662 528	84 230	248 507	329 791	X	X	X	X					
331314	Secondary smelting and alloying of aluminum . . . . .	287 137	144 267	20 880	121 990	261 699	136 968	21 049	103 683	1	2	1	2					
	2002..	253 960	134 811	19 144	100 005	284 231	143 123	32 441	108 667	X	X	X	X					
331316	Aluminum extruded product manufacturing . . . . .	443 510	129 791	152 684	161 035	475 908	120 723	172 102	183 084	4	3	2	6					
	2002..	471 952	125 687	146 837	199 428	501 166	121 857	157 735	221 574	X	X	X	X					
33131N	Aluminum rolling and drawing . . . . .	1 659 464	472 152	771 256	416 056	1 542 950	414 352	622 518	506 080	1	1	1	1					
	2002..	1 529 261	415 625	624 280	489 356	1 517 900	348 053	469 343	700 504	X	X	X	X					

See footnotes at end of table.



Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—												
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.													
		A	B	C	D	E	F	G	H	A	B	C	D									
331	Primary metal manufacturing—Con.																					
3314	Nonferrous metal (except aluminum) production and processing	3 149 526	1 014 373	1 264 058	871 096	3 134 266	910 961	1 364 692	858 613	2	3	5	1									
		3 119 947	876 569	1 375 497	867 881	3 294 698	967 789	1 431 238	895 671	X	X	X	X									
33141	Nonferrous metal (except aluminum) smelting and refining	672 510	161 989	305 577	204 943	644 871	107 570	338 113	199 189	1	4	1	2									
		661 916	115 213	337 120	209 583	707 574	156 570	336 409	214 595	X	X	X	X									
331411	Primary smelting and refining of copper	255 540	29 472	196 031	30 037	236 105	20 117	161 105	54 883	1	1	1	1									
		232 904	18 534	161 106	53 264	305 235	29 175	206 264	69 796	X	X	X	X									
331419	Primary smelting and refining of nonferrous metal (except copper and aluminum)	416 969	132 517	109 546	174 906	408 766	87 453	177 008	144 306	2	5	1	2									
		429 012	96 679	176 014	156 319	402 339	127 395	130 145	144 799	X	X	X	X									
33142	Copper rolling, drawing, extruding, and alloying	1 073 113	419 770	395 079	258 264	1 041 690	387 059	374 559	280 072	3	7	1	1									
		998 615	349 895	377 072	271 648	1 049 365	386 440	367 925	295 000	X	X	X	X									
33142M	Copper rolling, drawing, extruding, and alloying	1 073 113	419 770	395 079	258 264	1 041 690	387 059	374 559	280 072	3	7	1	1									
		998 615	349 895	377 072	271 648	1 049 365	386 440	367 925	295 000	X	X	X	X									
33149	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying	1 403 904	432 614	563 401	407 889	1 447 705	416 332	652 020	379 352	4	2	11	2									
		1 459 416	411 461	661 305	386 650	1 537 759	424 779	726 904	386 076	X	X	X	X									
33149M	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying	1 403 904	432 614	563 401	407 889	1 447 705	416 332	652 020	379 352	4	2	11	2									
		1 459 416	411 461	661 305	386 650	1 537 759	424 779	726 904	386 076	X	X	X	X									
3315	Foundries	2 491 969	938 038	727 636	826 295	2 552 881	1 003 057	736 614	813 210	1	1	1	1									
		2 578 744	1 005 890	750 082	822 772	2 626 029	971 851	780 861	873 317	X	X	X	X									
33151	Ferrous metal foundries	1 518 894	646 238	365 822	506 834	1 574 097	696 572	382 739	494 785	1	1	2	1									
		1 587 365	697 995	391 139	498 231	1 611 190	663 405	418 363	529 422	X	X	X	X									
33151M	Ferrous metal foundries	1 518 894	646 238	365 822	506 834	1 574 097	696 572	382 739	494 785	1	1	2	1									
		1 587 365	697 995	391 139	498 231	1 611 190	663 405	418 363	529 422	X	X	X	X									
33152	Nonferrous metal foundries	973 075	291 800	361 814	319 461	978 785	306 485	353 875	318 425	2	2	2	2									
		991 379	307 895	358 943	324 541	1 014 839	308 446	362 498	343 895	X	X	X	X									
33152N	Aluminum foundries	587 784	171 420	197 961	218 404	606 036	188 633	199 916	217 486	2	3	4	3									
		608 483	188 099	201 043	219 341	601 193	184 413	191 890	224 890	X	X	X	X									
33152P	Foundries not aluminum	385 291	120 381	163 854	101 057	372 749	117 852	153 959	100 939	2	3	2	4									
		382 896	119 796	157 900	105 200	413 646	124 033	170 608	119 005	X	X	X	X									
332	Fabricated metal product manufacturing	30 775 820	11 096 128	9 066 982	10 612 710	31 070 041	11 259 280	9 202 646	10 608 115	1	1	1	1									
		30 649 637	11 162 218	8 834 785	10 652 634	30 805 144	11 258 427	8 825 313	10 721 404	X	X	X	X									
3321	Forging and stamping	2 782 797	905 014	771 098	1 106 685	2 788 126	923 365	791 180	1 073 581	1	2	1	1									
		2 782 828	917 798	805 404	1 059 626	2 821 644	910 948	835 279	1 075 417	X	X	X	X									
33211	Forging and stamping	2 782 797	905 014	771 098	1 106 685	2 788 126	923 365	791 180	1 073 581	1	2	1	1									
		2 782 828	917 798	805 404	1 059 626	2 821 644	910 948	835 279	1 075 417	X	X	X	X									
332114	Custom roll forming	599 262	195 448	90 161	313 654	584 444	204 397	90 790	289 257	2	4	8	1									
		559 177	191 983	94 692	272 502	534 009	176 029	92 804	265 176	X	X	X	X									
332117	Powder metallurgy parts manufacturing	126 372	48 859	41 617	35 896	124 842	41 738	42 866	40 238	5	14	11	9									
		133 184	49 833	42 516	40 835	153 018	57 804	49 762	45 452	X	X	X	X									
33211N	Forging	930 427	197 899	386 608	345 921	943 080	199 982	401 491	341 607	1	2	1	1									
		962 739	199 979	411 894	350 866	994 384	213 733	435 398	345 253	X	X	X	X									
33211P	Crown, closure, and metal stamping manufacturing	1 126 735	462 808	252 712	411 214	1 135 760	477 248	256 033	402 479	2	2	3	1									
		1 127 728	476 003	256 302	395 423	1 140 233	463 382	257 315	419 536	X	X	X	X									
3322	Cutlery and handtool manufacturing	1 671 581	744 731	435 294	491 555	1 674 252	751 332	459 716	463 205	1	1	1	2									
		1 767 334	818 763	465 777	482 794	1 762 213	788 336	469 126	504 751	X	X	X	X									
33221	Cutlery and hand tool manufacturing	1 671 581	744 731	435 294	491 555	1 674 252	751 332	459 716	463 205	1	1	1	2									
		1 767 334	818 763	465 777	482 794	1 762 213	788 336	469 126	504 751	X	X	X	X									
33221N	Cutlery, kitchen utensil, pot, and pan manufacturing	466 572	205 858	112 171	148 543	435 425	203 803	109 467	122 155	2	3	1	2									
		448 437	208 903	112 300	127 234	434 798	210 012	93 232	131 554	X	X	X	X									
33221P	Hand tool and saw blade manufacturing	1 205 009	538 874	323 123	343 013	1 238 828	547 529	350 249	341 050	1	1	1	2									
		1 318 897	609 860	353 477	355 560	1 327 415	578 324	375 894	373 197	X	X	X	X									
3323	Architectural and structural metals manufacturing	6 731 058	1 768 554	1 910 047	3 052 457	6 684 732	1 811 582	1 899 066	2 974 084	2	5	2	2									
		6 601 562	1 734 210	1 928 327	2 939 025	6 557 490	1 751 492	1 876 678	2 929 320	X	X	X	X									
33231	Plate work and fabricated structural product manufacturing	3 309 834	718 551	1 252 346	1 338 937	3 159 327	664 971	1 191 903	1 302 453	4	8	2	4									
		3 100 984	641 605	1 203 711	1 255 668	3 035 368	658 778	1 109 253	1 267 337	X	X	X	X									
33231M	Plate work and fabricated structural product manufacturing	3 309 834	718 551	1 252 346	1 338 937	3 159 327	664 971	1 191 903	1 302 453	4	8	2	4									
		3 100 984	641 605	1 203 711	1 255 668	3 035 368	658 778	1 109 253	1 267 337	X	X	X	X									

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**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—				
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.					
		A	B	C	D	E	F	G	H	A	B	C	D	
332	Fabricated metal product manufacturing—Con.													
3323	Architectural and structural metals manufacturing—Con.													
33232	Ornamental and architectural metal work manufacturing .....	2003.. 3 421 224	1 050 003	657 701	1 713 520	3 525 405	1 146 611	707 163	1 671 631	3	6	3	3	
		2002.. 3 500 578	1 092 605	724 616	1 683 357	3 522 122	1 092 714	767 425	1 661 983	X	X	X	X	
33232M	Ornamental and architectural metal work manufacturing .....	2003.. 3 421 224	1 050 003	657 701	1 713 520	3 525 405	1 146 611	707 163	1 671 631	3	6	3	3	
		2002.. 3 500 578	1 092 605	724 616	1 683 357	3 522 122	1 092 714	767 425	1 661 983	X	X	X	X	
3324	Boiler, tank, and shipping container manufacturing .....	2003.. 2 329 528	953 009	576 773	799 746	2 351 818	983 102	570 460	798 256	1	1	3	1	
		2002.. 2 387 312	1 012 760	573 989	800 563	2 478 183	1 074 375	574 225	829 583	X	X	X	X	
33241	Power boiler and heat exchanger manufacturing .....	2003.. 391 426	71 573	212 382	107 471	406 339	69 104	221 764	115 471	3	3	5	4	
		2002.. 404 002	68 287	216 924	118 791	414 364	76 262	213 007	125 095	X	X	X	X	
332410	Power boiler and heat exchanger manufacturing .....	2003.. 391 426	71 573	212 382	107 471	406 339	69 104	221 764	115 471	3	3	5	4	
		2002.. 404 002	68 287	216 924	118 791	414 364	76 262	213 007	125 095	X	X	X	X	
33242	Metal tank (heavy gauge) manufacturing .....	2003.. 593 239	146 155	191 438	255 646	565 147	138 078	180 759	246 310	3	7	7	1	
		2002.. 577 869	149 772	184 274	243 823	619 728	160 541	193 298	265 889	X	X	X	X	
332420	Metal tank (heavy gauge) manufacturing .....	2003.. 593 239	146 155	191 438	255 646	565 147	138 078	180 759	246 310	3	7	7	1	
		2002.. 577 869	149 772	184 274	243 823	619 728	160 541	193 298	265 889	X	X	X	X	
33243	Metal can, box, and other metal container (light gauge) manufacturing .....	2003.. 1 344 863	735 281	172 953	436 629	1 380 333	775 921	167 936	436 475	1	1	4	1	
		2002.. 1 405 441	794 701	172 791	437 949	1 444 091	837 572	167 920	438 599	X	X	X	X	
33243M	Metal can, box, and other metal container (light gauge) manufacturing .....	2003.. 1 344 863	735 281	172 953	436 629	1 380 333	775 921	167 936	436 475	1	1	4	1	
		2002.. 1 405 441	794 701	172 791	437 949	1 444 091	837 572	167 920	438 599	X	X	X	X	
3325	Hardware manufacturing .....	2003.. 1 038 848	358 474	288 760	391 614	1 113 046	404 684	304 744	403 619	2	2	1	5	
		2002.. 1 134 770	411 263	311 172	412 335	1 159 803	396 701	330 427	432 675	X	X	X	X	
33251	Hardware manufacturing .....	2003.. 1 038 848	358 474	288 760	391 614	1 113 046	404 684	304 744	403 619	2	2	1	5	
		2002.. 1 134 770	411 263	311 172	412 335	1 159 803	396 701	330 427	432 675	X	X	X	X	
332510	Hardware manufacturing .....	2003.. 1 038 848	358 474	288 760	391 614	1 113 046	404 684	304 744	403 619	2	2	1	5	
		2002.. 1 134 770	411 263	311 172	412 335	1 159 803	396 701	330 427	432 675	X	X	X	X	
3326	Spring and wire product manufacturing .....	2003.. 1 131 270	604 667	201 735	324 869	1 151 527	620 046	205 108	326 373	2	3	4	2	
		2002.. 1 099 290	610 942	174 177	314 171	1 108 220	601 117	180 636	326 467	X	X	X	X	
33261	Spring and wire product manufacturing .....	2003.. 1 131 270	604 667	201 735	324 869	1 151 527	620 046	205 108	326 373	2	3	4	2	
		2002.. 1 099 290	610 942	174 177	314 171	1 108 220	601 117	180 636	326 467	X	X	X	X	
33261M	Spring and wire product manufacturing .....	2003.. 1 131 270	604 667	201 735	324 869	1 151 527	620 046	205 108	326 373	2	3	4	2	
		2002.. 1 099 290	610 942	174 177	314 171	1 108 220	601 117	180 636	326 467	X	X	X	X	
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing .....	2003.. 5 341 247	1 939 397	2 161 737	1 240 112	5 218 597	1 849 137	2 100 708	1 268 751	2	3	2	2	
		2002.. 5 135 050	1 791 497	2 072 274	1 271 279	5 085 816	1 753 998	2 088 661	1 243 157	X	X	X	X	
33271	Machine shops .....	2003.. 3 090 457	864 696	1 501 394	724 367	2 982 769	789 789	1 454 638	738 342	3	6	3	2	
		2002.. 2 915 641	744 554	1 425 119	745 968	2 865 690	726 906	1 422 430	716 354	X	X	X	X	
332710	Machine shops .....	2003.. 3 090 457	864 696	1 501 394	724 367	2 982 769	789 789	1 454 638	738 342	3	6	3	2	
		2002.. 2 915 641	744 554	1 425 119	745 968	2 865 690	726 906	1 422 430	716 354	X	X	X	X	
33272	Turned product and screw, nut, and bolt manufacturing .....	2003.. 2 250 789	1 074 702	660 343	515 745	2 235 828	1 059 348	646 070	530 410	1	2	1	2	
		2002.. 2 219 409	1 046 943	647 155	525 311	2 220 126	1 027 092	666 231	526 803	X	X	X	X	
332721	Precision turned product manufacturing .....	2003.. 1 060 134	440 514	367 650	251 970	1 065 975	439 129	363 698	263 148	2	4	2	3	
		2002.. 1 050 988	434 436	362 038	254 514	1 059 813	426 304	369 109	264 400	X	X	X	X	
332722	Bolt, nut, screw, rivet, and washer manufacturing .....	2003.. 1 190 655	634 187	292 693	263 775	1 169 853	620 219	282 372	267 262	2	2	2	2	
		2002.. 1 168 421	612 507	285 117	270 797	1 160 313	600 788	297 122	262 403	X	X	X	X	
3328	Coating, engraving, heat treating, and allied activities .....	2003.. 1 865 355	588 878	635 762	640 716	2 004 361	604 319	666 871	733 172	8	5	4	16	
		2002.. 1 688 485	614 898	336 647	736 940	1 636 411	628 705	288 608	719 098	X	X	X	X	
33281	Coating, engraving, heat treating, and allied activities .....	2003.. 1 865 355	588 878	635 762	640 716	2 004 361	604 319	666 871	733 172	8	5	4	16	
		2002.. 1 688 485	614 898	336 647	736 940	1 636 411	628 705	288 608	719 098	X	X	X	X	
33281M	Coating, engraving, heat treating, and allied activities .....	2003.. 1 865 355	588 878	635 762	640 716	2 004 361	604 319	666 871	733 172	8	5	4	16	
		2002.. 1 688 485	614 898	336 647	736 940	1 636 411	628 705	288 608	719 098	X	X	X	X	
3329	Other fabricated metal product manufacturing .....	2003.. 7 884 136	3 233 404	2 085 775	2 564 956	8 083 581	3 311 714	2 204 793	2 567 074	1	1	2	1	
		2002.. 8 053 006	3 250 087	2 167 018	2 635 901	8 195 364	3 352 755	2 181 673	2 660 936	X	X	X	X	

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—						
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D			
		A	B	C	D	E	F	G	H	A	B	C	D			
332	Fabricated metal product manufacturing—Con.															
3329	Other fabricated metal product manufacturing—Con.															
33291	Metal valve manufacturing .....	3 771 533	1 798 631	809 608	1 163 294	3 800 001	1 750 860	872 040	1 177 101	2	3	3	2			
	2002..	3 865 047	1 756 337	912 010	1 196 700	3 996 115	1 833 458	921 910	1 240 747	X	X	X	X			
332913	Plumbing fixture fitting and trim manufacturing .....	393 010	173 723	84 260	135 027	412 048	155 650	100 336	156 062	1	2	3	1			
	2002..	427 637	167 137	100 919	159 581	434 274	185 425	111 208	137 641	X	X	X	X			
33291N	Valve and fitting (except plumbing) manufacturing .....	3 378 523	1 624 908	725 348	1 028 267	3 387 953	1 595 209	771 704	1 021 039	2	3	3	3			
	2002..	3 437 410	1 589 200	811 091	1 037 119	3 561 841	1 648 033	810 702	1 103 106	X	X	X	X			
33299	All other fabricated metal product manufacturing .....	4 112 603	1 434 773	1 276 167	1 401 662	4 283 580	1 560 854	1 332 754	1 389 972	1	1	2	1			
	2002..	4 187 959	1 493 750	1 255 008	1 439 201	4 199 249	1 519 297	1 259 763	1 420 189	X	X	X	X			
332991	Ball and roller bearing manufacturing .....	750 756	249 959	256 546	244 251	790 788	290 247	256 615	243 926	3	3	6	1			
	2002..	798 562	294 921	260 100	243 541	846 184	319 238	270 200	256 746	X	X	X	X			
332992	Small arms ammunition manufacturing .....	232 933	130 188	52 071	50 674	234 973	131 595	51 440	51 938	1	1	1	2			
	2002..	236 273	132 455	51 771	52 047	191 565	107 462	32 845	51 258	X	X	X	X			
332993	Ammunition (except small arms) manufacturing .....	121 963	2 666	105 963	13 334	96 078	1 973	79 513	14 592	3	6	3	3			
	2002..	96 088	1 945	79 035	15 108	94 968	1 881	82 019	11 068	X	X	X	X			
332994	Small arms manufacturing .....	429 392	133 420	128 508	167 464	529 686	198 738	179 685	151 262	1	1	1	1			
	2002..	441 504	129 866	123 733	187 905	408 435	145 146	120 648	142 641	X	X	X	X			
332995	Other ordnance and accessories manufacturing .....	247 078	7 836	227 113	12 128	225 823	6 477	206 680	12 666	1	12	1	1			
	2002..	226 097	6 406	206 885	12 806	199 973	9 004	178 243	12 726	X	X	X	X			
332996	Fabricated pipe and pipe fitting manufacturing .....	584 935	219 231	102 577	263 127	639 560	216 643	136 888	286 029	3	4	13	4			
	2002..	621 460	216 603	110 398	294 459	642 356	218 971	129 167	294 218	X	X	X	X			
33299N	Other fabricated metal products manufacturing .....	1 745 547	691 474	403 389	650 684	1 766 673	715 182	421 932	629 559	1	2	2	1			
	2002..	1 767 975	711 554	423 086	633 335	1 815 768	717 595	446 641	651 532	X	X	X	X			
333	Machinery manufacturing .....	39 076 199	13 392 637	11 962 933	13 720 629	39 573 732	13 649 862	12 197 516	13 726 353	1	1	1	1			
	2002..	40 484 730	13 805 662	12 551 174	14 127 894	42 431 305	14 478 530	13 062 819	14 889 956	X	X	X	X			
3331	Agriculture, construction, and mining machinery manufacturing .....	8 236 267	3 979 378	1 719 256	2 537 633	8 203 050	4 022 858	1 677 189	2 503 003	1	2	3	1			
	2002..	8 416 747	4 107 920	1 721 855	2 586 972	8 877 818	4 318 291	1 854 362	2 705 165	X	X	X	X			
33311	Agricultural implement manufacturing .....	3 141 530	1 648 886	529 650	962 994	3 082 626	1 573 539	517 116	991 971	2	2	2	2			
	2002..	3 068 122	1 575 408	500 344	992 370	3 216 258	1 677 379	525 784	1 013 095	X	X	X	X			
333111	Farm machinery and equipment manufacturing .....	2 002 902	866 236	417 844	718 823	2 095 625	918 532	403 264	773 829	3	4	3	3			
	2002..	2 096 657	930 785	380 801	785 071	2 133 518	947 772	405 095	780 651	X	X	X	X			
333112	Lawn and garden tractor and home lawn and garden equipment manufacturing .....	1 138 628	782 650	111 807	244 171	987 002	655 006	113 853	218 143	1	1	4	1			
	2002..	971 465	644 623	119 543	207 299	1 082 740	729 607	120 689	232 444	X	X	X	X			
33312	Construction machinery manufacturing .....	2 965 724	1 122 227	694 085	1 149 412	3 037 212	1 205 659	737 569	1 093 984	2	2	4	2			
	2002..	3 182 846	1 263 501	781 204	1 138 141	3 479 998	1 408 294	918 161	1 153 543	X	X	X	X			
333120	Construction machinery manufacturing .....	2 965 724	1 122 227	694 085	1 149 412	3 037 212	1 205 659	737 569	1 093 984	2	2	4	2			
	2002..	3 182 846	1 263 501	781 204	1 138 141	3 479 998	1 408 294	918 161	1 153 543	X	X	X	X			
33313	Mining and oil and gas field machinery manufacturing .....	2 129 013	1 208 265	495 521	425 227	2 083 211	1 243 661	422 503	417 047	4	4	8	3			
	2002..	2 165 779	1 269 011	440 307	456 461	2 181 562	1 232 618	410 417	538 527	X	X	X	X			
33313M	Mining and oil and gas field machinery manufacturing .....	2 129 013	1 208 265	495 521	425 227	2 083 211	1 243 661	422 503	417 047	4	4	8	3			
	2002..	2 165 779	1 269 011	440 307	456 461	2 181 562	1 232 618	410 417	538 527	X	X	X	X			
3332	Industrial machinery manufacturing .....	5 771 537	1 536 238	1 764 970	2 470 330	6 238 687	1 737 698	1 822 019	2 678 970	1	2	2	2			
	2002..	6 404 456	1 775 888	1 870 035	2 758 533	6 845 933	1 857 859	2 042 699	2 945 375	X	X	X	X			
33321	Sawmill and woodworking machinery manufacturing .....	169 629	42 647	47 348	79 633	175 383	50 614	45 074	79 696	4	4	5	5			
	2002..	176 262	48 959	44 952	82 351	203 814	62 951	56 002	84 861	X	X	X	X			
333210	Sawmill and woodworking machinery manufacturing .....	169 629	42 647	47 348	79 633	175 383	50 614	45 074	79 696	4	4	5	5			
	2002..	176 262	48 959	44 952	82 351	203 814	62 951	56 002	84 861	X	X	X	X			
33322	Plastics and rubber industry machinery manufacturing .....	593 171	191 692	196 799	204 681	614 745	229 964	159 345	225 436	2	3	3	3			
	2002..	627 720	235 782	163 219	228 719	737 174	247 304	207 696	282 174	X	X	X	X			
333220	Plastics and rubber industry machinery manufacturing .....	593 171	191 692	196 799	204 681	614 745	229 964	159 345	225 436	2	3	3	3			
	2002..	627 720	235 782	163 219	228 719	737 174	247 304	207 696	282 174	X	X	X	X			
33329	Other industrial machinery manufacturing .....	5 008 738	1 301 899	1 520 823	2 186 015	5 448 559	1 457 120	1 617 600	2 373 839	1	2	2	2			
	2002..	5 600 474	1 491 147	1 661 864	2 447 463	5 904 945	1 547 604	1 779 001	2 578 340	X	X	X	X			
333295	Semiconductor machinery manufacturing .....	1 955 180	318 437	598 300	1 038 442	2 303 934	413 897	690 678	1 199 359	2	4	1	3			
	2002..	2 379 155	428 516	713 729	1 236 910	2 533 292	425 638	807 056	1 300 598	X	X	X	X			
33329N	Other machinery manufacturing .....	3 053 558	983 462	922 523	1 147 573	3 144 625	1 043 223	926 922	1 174 480	2	2	3	2			
	2002..	3 221 319	1 062 631	948 135	1 210 553	3 371 653	1 121 966	971 945	1 277 742	X	X	X	X			

See footnotes at end of table.

**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.**

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—					
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.						
		A	B	C	D	E	F	G	H	A	B	C	D		
333	Machinery manufacturing—Con.														
3333	Commercial and service industry machinery manufacturing	3 233 174	915 641	690 905	1 626 629	3 134 022	853 853	710 868	1 569 302	1	2	5	1		
		3 234 340	870 303	709 953	1 654 084	3 175 433	843 833	697 612	1 633 988	X	X	X	X		
33331	Commercial and service industry machinery manufacturing	3 233 174	915 641	690 905	1 626 629	3 134 022	853 853	710 868	1 569 302	1	2	5	1		
		3 234 340	870 303	709 953	1 654 084	3 175 433	843 833	697 612	1 633 988	X	X	X	X		
333313	Office machinery manufacturing	303 572	100 828	61 781	140 963	305 949	82 628	71 831	151 491	2	3	5	2		
		283 306	69 968	69 530	143 808	300 168	70 471	87 758	141 939	X	X	X	X		
333314	Optical instrument and lens manufacturing	482 880	122 227	151 077	209 576	519 354	127 196	176 008	216 150	6	4	17	3		
		533 473	127 737	178 120	227 616	517 346	173 264	173 756	221 326	X	X	X	X		
333315	Photographic and photocopying equipment manufacturing	369 432	95 200	46 206	228 026	323 861	87 249	55 183	181 429	4	5	2	5		
		386 632	92 046	53 022	241 564	391 219	71 686	72 001	247 532	X	X	X	X		
33331N	All other commercial and service industry machinery manufacturing	2 077 290	597 387	431 840	1 048 064	1 984 858	556 780	407 846	1 020 232	2	3	5	2		
		2 030 929	580 552	409 281	1 041 096	1 966 700	579 412	364 097	1 023 191	X	X	X	X		
3334	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing	3 328 808	1 406 115	621 655	1 301 038	3 220 574	1 313 891	542 582	1 364 101	2	3	2	2		
		3 289 899	1 359 719	559 240	1 370 940	3 677 211	1 564 513	612 592	1 500 106	X	X	X	X		
33341	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing	3 328 808	1 406 115	621 655	1 301 038	3 220 574	1 313 891	542 582	1 364 101	2	3	2	2		
		3 289 899	1 359 719	559 240	1 370 940	3 677 211	1 564 513	612 592	1 500 106	X	X	X	X		
333414	Heating equipment (except warm air furnaces) manufacturing	514 173	238 299	80 332	195 542	536 477	225 530	79 209	231 738	6	9	6	7		
		530 768	225 493	79 661	225 614	566 734	241 578	82 043	243 113	X	X	X	X		
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing	2 354 879	1 067 948	450 577	836 353	2 198 204	980 642	370 349	847 213	2	3	3	2		
		2 287 424	1 023 388	377 090	886 946	2 604 585	1 201 443	426 380	976 762	X	X	X	X		
33341N	Ventilation equipment manufacturing	459 756	99 867	90 746	269 144	485 893	107 719	93 024	285 149	3	5	5	3		
		471 707	110 838	102 489	258 380	505 892	121 492	104 169	280 231	X	X	X	X		
3335	Metalworking machinery manufacturing	4 115 232	1 297 503	1 945 330	872 399	4 279 808	1 383 752	1 995 827	900 229	1	2	2	1		
		4 441 040	1 403 435	2 110 456	927 149	4 707 505	1 470 651	2 269 248	967 606	X	X	X	X		
33351	Metalworking machinery manufacturing	4 115 232	1 297 503	1 945 330	872 399	4 279 808	1 383 752	1 995 827	900 229	1	2	2	1		
		4 441 040	1 403 435	2 110 456	927 149	4 707 505	1 470 651	2 269 248	967 606	X	X	X	X		
333511	Industrial mold manufacturing	551 416	93 835	359 108	98 473	596 310	119 093	370 902	106 316	5	24	4	4		
		607 803	120 007	380 722	107 074	630 561	131 360	385 945	113 256	X	X	X	X		
333512	Machine tool (metal cutting types) manufacturing	853 676	260 453	373 162	220 060	919 867	276 236	421 117	222 515	2	3	4	3		
		940 229	283 267	427 190	229 772	1 033 925	330 443	463 362	240 120	X	X	X	X		
333513	Machine tool (metal forming types) manufacturing	267 927	101 705	107 664	58 557	269 906	98 894	111 774	59 238	3	3	4	5		
		250 683	92 352	104 421	53 910	256 904	100 581	96 035	60 288	X	X	X	X		
333514	Special die and tool, die set, jig, and fixture manufacturing	998 459	240 943	587 138	170 378	1 003 392	254 878	569 572	178 942	4	8	6	3		
		1 024 444	255 768	587 646	181 030	1 020 894	234 261	611 250	175 383	X	X	X	X		
333515	Cutting tool and machine tool accessory manufacturing	892 835	503 203	197 034	192 598	929 571	529 307	206 569	193 695	1	1	2	2		
		957 835	538 865	210 905	208 065	1 016 384	559 923	224 728	231 733	X	X	X	X		
333516	Rolling mill machinery and equipment manufacturing	135 711	27 648	56 095	51 968	162 504	29 172	71 494	61 838	2	3	5	1		
		161 660	29 015	70 908	61 737	170 910	26 246	82 714	61 950	X	X	X	X		
333518	Other metalworking machinery manufacturing	415 208	69 716	265 127	80 365	398 257	76 173	244 399	77 685	5	8	6	4		
		498 386	84 161	328 664	85 561	577 927	87 837	405 214	84 876	X	X	X	X		
3336	Engine, turbine, and power transmission equipment manufacturing	4 382 921	1 107 670	1 926 271	1 348 980	4 574 061	1 166 961	2 174 061	1 233 039	1	1	1	1		
		4 618 384	1 158 414	2 191 126	1 268 844	4 900 178	1 161 712	2 321 534	1 416 932	X	X	X	X		
33361	Engine, turbine, and power transmission equipment manufacturing	4 382 921	1 107 670	1 926 271	1 348 980	4 574 061	1 166 961	2 174 061	1 233 039	1	1	1	1		
		4 618 384	1 158 414	2 191 126	1 268 844	4 900 178	1 161 712	2 321 534	1 416 932	X	X	X	X		
333611	Turbine and turbine generator set unit manufacturing	1 411 490	192 074	964 392	255 025	1 615 956	147 093	1 199 871	268 992	1	3	1	2		
		1 606 727	87 679	1 249 939	269 109	1 923 701	141 237	1 276 233	506 231	X	X	X	X		
333612	Speed changer, industrial high-speed drive, and gear manufacturing	431 408	175 527	114 829	141 053	418 296	156 168	121 775	140 335	1	1	2	2		
		439 606	166 482	129 207	143 917	456 761	176 050	133 491	147 220	X	X	X	X		
333613	Mechanical power transmission equipment manufacturing	608 245	266 837	220 599	120 809	590 333	282 375	203 149	104 809	3	4	5	7		
		598 349	286 724	213 525	98 100	630 325	302 540	217 326	110 459	X	X	X	X		

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**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.**

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—															
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.																
		A	B	C	D	E	F	G	H	A	B	C	D												
333	Machinery manufacturing—Con.																								
3336	Engine, turbine, and power transmission equipment manufacturing—Con.																								
33361	Engine, turbine, and power transmission equipment manufacturing—Con.																								
333618	Other engine equipment manufacturing	2003.. 1 931 778	473 233	626 452	832 094	1 949 476	581 324	649 266	718 886	1	1	1	1	2002.. 1 973 702	617 529	598 455	757 718	1 889 391	541 885	694 484	653 022	X	X	X	X
3339	Other general purpose machinery manufacturing	2003.. 10 008 260	3 150 092	3 294 548	3 563 620	9 923 530	3 170 850	3 274 971	3 477 709	2	1	3	4	2002.. 10 079 864	3 129 983	3 388 509	3 561 372	10 247 227	3 261 671	3 264 772	3 720 784	X	X	X	X
33391	Pump and compressor manufacturing	2003.. 2 523 514	969 187	619 140	935 186	2 343 075	958 349	625 587	759 139	9	3	16	14	2002.. 2 321 434	925 163	576 558	819 713	2 331 115	972 767	516 415	841 933	X	X	X	X
333911	Pump and pumping equipment manufacturing	2003.. 1 287 410	578 162	220 126	489 122	1 260 999	540 841	227 257	492 902	2	4	7	3	2002.. 1 235 889	518 072	220 716	497 101	1 274 752	557 911	208 813	508 028	X	X	X	X
333912	Air and gas compressor manufacturing	2003.. 1 108 471	345 423	373 696	389 353	948 316	372 533	371 327	204 455	21	5	26	35	2002.. 957 804	365 163	330 061	262 580	918 034	368 947	273 433	275 654	X	X	X	X
333913	Measuring and dispensing pump manufacturing	2003.. 127 632	45 603	25 318	56 711	133 760	44 975	27 003	61 782	1	2	1	1	2002.. 127 741	41 928	25 781	60 032	138 329	45 909	34 169	58 251	X	X	X	X
33392	Material handling equipment manufacturing	2003.. 2 070 324	655 960	384 139	1 030 225	2 202 433	697 804	434 073	1 070 555	2	3	4	2	2002.. 2 171 349	697 021	441 022	1 033 306	2 263 676	729 655	491 469	1 042 552	X	X	X	X
33392M	Material handling equipment manufacturing	2003.. 2 070 324	655 960	384 139	1 030 225	2 202 433	697 804	434 073	1 070 555	2	3	4	2	2002.. 2 171 349	697 021	441 022	1 033 306	2 263 676	729 655	491 469	1 042 552	X	X	X	X
33399	All other general purpose machinery manufacturing	2003.. 5 414 422	1 524 945	2 291 268	1 598 209	5 378 022	1 514 697	2 215 311	1 648 015	1	2	1	1	2002.. 5 587 081	1 507 799	2 370 929	1 708 353	5 652 436	1 559 249	2 256 888	1 836 299	X	X	X	X
333991	Power-driven hand tool manufacturing	2003.. 355 910	194 178	69 637	92 094	366 259	201 620	74 114	90 525	1	1	2	1	2002.. 390 090	201 812	75 051	113 227	377 746	209 550	75 547	92 649	X	X	X	X
333993	Packaging machinery manufacturing	2003.. 799 926	231 028	282 781	286 117	808 081	235 076	266 683	306 321	2	4	5	2	2002.. 801 703	237 673	264 060	299 970	841 452	246 807	275 441	319 204	X	X	X	X
333994	Industrial process furnace and oven manufacturing	2003.. 231 893	37 168	84 163	110 562	237 520	38 167	84 806	114 547	5	9	6	4	2002.. 251 705	44 608	88 000	119 097	293 292	47 633	94 683	150 976	X	X	X	X
33399N	Fluid power equipment manufacturing	2003.. 1 019 759	300 446	343 712	375 601	1 044 940	290 772	370 563	383 605	1	1	1	1	2002.. 1 046 054	287 686	374 564	383 804	1 075 049	265 850	423 448	385 751	X	X	X	X
33399P	All other miscellaneous general purpose machinery manufacturing	2003.. 3 006 934	762 124	1 510 975	733 835	2 921 222	749 061	1 419 144	753 018	1	3	2	2	2002.. 3 097 529	736 020	1 569 254	792 255	3 064 897	789 409	1 387 769	887 719	X	X	X	X
334	Computer and electronic product manufacturing	2003.. 42 369 225	8 865 555	17 828 059	15 675 611	43 160 705	9 215 208	16 844 669	17 100 828	1	1	1	1	2002.. 44 731 933	9 830 973	17 090 828	17 810 132	49 544 648	11 762 661	17 701 778	20 080 209	X	X	X	X
3341	Computer and peripheral equipment manufacturing	2003.. 4 406 509	1 131 200	1 212 453	2 062 857	4 826 179	1 046 009	1 479 637	2 300 533	1	2	1	1	2002.. 5 256 581	1 155 524	1 492 743	2 608 314	5 266 886	1 332 937	1 480 506	2 453 443	X	X	X	X
33411	Computer and peripheral equipment manufacturing	2003.. 4 406 509	1 131 200	1 212 453	2 062 857	4 826 179	1 046 009	1 479 637	2 300 533	1	2	1	1	2002.. 5 256 581	1 155 524	1 492 743	2 608 314	5 266 886	1 332 937	1 480 506	2 453 443	X	X	X	X
334111	Electronic computer manufacturing	2003.. 1 708 707	242 230	291 203	1 175 274	1 946 018	236 057	366 435	1 343 526	1	1	1	1	2002.. 1 964 226	236 436	370 469	1 357 321	1 822 087	353 677	440 045	1 028 365	X	X	X	X
334112	Computer storage device manufacturing	2003.. 1 011 019	320 450	452 466	238 103	1 074 220	274 960	573 576	225 684	1	2	1	3	2002.. 1 203 643	290 049	578 009	335 585	1 206 860	310 628	514 689	381 543	X	X	X	X
334113	Computer terminal manufacturing	2003.. 24 148	6 335	5 759	12 055	49 442	17 033	7 929	24 480	17	8	7	27	2002.. 49 301	17 592	7 828	23 881	61 416	16 965	12 826	31 625	X	X	X	X
334119	Other computer peripheral equipment manufacturing	2003.. 1 662 635	562 185	463 025	637 425	1 756 499	517 958	531 698	706 843	3	4	3	4	2002.. 2 039 411	611 447	536 437	891 527	2 176 523	651 667	512 946	1 011 910	X	X	X	X
3342	Communications equipment manufacturing	2003.. 10 483 402	2 298 587	5 098 168	3 086 647	10 776 643	2 425 196	4 791 850	3 559 597	1	2	1	3	2002.. 11 304 541	2 716 854	4 816 746	3 770 941	13 284 943	3 857 492	4 183 598	5 243 533	X	X	X	X
33421	Telephone apparatus manufacturing	2003.. 2 623 520	1 088 250	403 947	1 131 323	2 646 329	1 057 451	381 672	1 207 206	5	2	6	8	2002.. 3 265 635	1 346 371	452 452	1 466 812	5 557 309	1 962 782	827 613	2 766 914	X	X	X	X
334210	Telephone apparatus manufacturing	2003.. 2 623 520	1 088 250	403 947	1 131 323	2 646 329	1 057 451	381 672	1 207 206	5	2	6	8	2002.. 3 265 635	1 346 371	452 452	1 466 812	5 557 309	1 962 782	827 613	2 766 914	X	X	X	X

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		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.											
		A	B	C	D	E	F	G	H	A	B	C	D							
334	Computer and electronic product manufacturing—Con.																			
3342	Communications equipment manufacturing—Con.																			
33422	Radio and television broadcasting and wireless communications equipment manufacturing.....2003..	7 136 950	974 162	4 596 644	1 566 145	7 335 490	1 114 438	4 307 712	1 913 340	1	3	1	2							
	.....2002..	7 238 309	1 113 597	4 260 287	1 864 425	6 949 296	1 670 111	3 257 975	2 021 210	X	X	X	X							
334220	Radio and television broadcasting and wireless communications equipment manufacturing.....2003..	7 136 950	974 162	4 596 644	1 566 145	7 335 490	1 114 438	4 307 712	1 913 340	1	3	1	2							
	.....2002..	7 238 309	1 113 597	4 260 287	1 864 425	6 949 296	1 670 111	3 257 975	2 021 210	X	X	X	X							
33429	Other communications equipment manufacturing.....2003..	722 932	236 175	97 578	389 179	794 825	253 308	102 466	439 051	2	2	8	4							
	.....2002..	800 597	256 886	104 007	439 704	778 338	224 599	98 010	455 729	X	X	X	X							
334290	Other communications equipment manufacturing.....2003..	722 932	236 175	97 578	389 179	794 825	253 308	102 466	439 051	2	2	8	4							
	.....2002..	800 597	256 886	104 007	439 704	778 338	224 599	98 010	455 729	X	X	X	X							
3343	Audio and video equipment manufacturing.....2003..	843 696	331 405	81 165	431 126	841 890	336 888	107 894	397 107	1	3	4	2							
	.....2002..	832 780	317 873	110 055	404 852	877 720	338 612	92 439	446 669	X	X	X	X							
33431	Audio and video equipment manufacturing.....2003..	843 696	331 405	81 165	431 126	841 890	336 888	107 894	397 107	1	3	4	2							
	.....2002..	832 780	317 873	110 055	404 852	877 720	338 612	92 439	446 669	X	X	X	X							
334310	Audio and video equipment manufacturing.....2003..	843 696	331 405	81 165	431 126	841 890	336 888	107 894	397 107	1	3	4	2							
	.....2002..	832 780	317 873	110 055	404 852	877 720	338 612	92 439	446 669	X	X	X	X							
3344	Semiconductor and other electronic component manufacturing.....2003..	11 651 406	2 088 553	5 102 980	4 459 873	12 106 820	2 293 442	4 880 971	4 932 407	1	1	1	1							
	.....2002..	12 440 949	2 416 942	5 009 666	5 014 341	13 635 837	2 748 643	5 274 121	5 613 073	X	X	X	X							
33441	Semiconductor and other electronic component manufacturing.....2003..	11 651 406	2 088 553	5 102 980	4 459 873	12 106 820	2 293 442	4 880 971	4 932 407	1	1	1	1							
	.....2002..	12 440 949	2 416 942	5 009 666	5 014 341	13 635 837	2 748 643	5 274 121	5 613 073	X	X	X	X							
334411	Electron tube manufacturing.....2003..	288 767	126 887	89 720	72 160	301 661	134 154	82 187	85 319	1	1	1	1							
	.....2002..	305 774	134 218	87 343	84 213	353 464	159 091	89 028	105 345	X	X	X	X							
334412	Bare printed circuit board manufacturing.....2003..	524 168	101 684	137 853	284 630	545 672	99 814	158 835	287 023	3	4	14	4							
	.....2002..	659 528	116 000	212 338	331 190	715 166	104 616	230 899	379 651	X	X	X	X							
334413	Semiconductor and related device manufacturing.....2003..	5 315 202	915 557	3 548 423	851 221	5 402 040	1 038 653	3 319 797	1 043 590	1	1	1	3							
	.....2002..	5 505 132	1 098 589	3 352 627	1 053 916	5 569 372	1 166 437	3 389 534	1 013 401	X	X	X	X							
334414	Electronic capacitor manufacturing.....2003..	307 023	55 545	59 219	192 259	374 179	74 166	70 811	229 201	4	5	3	5							
	.....2002..	403 525	83 703	84 066	235 756	524 117	141 599	93 051	289 467	X	X	X	X							
334415	Electronic resistor manufacturing.....2003..	137 879	44 004	51 467	42 408	143 796	53 303	45 422	45 071	6	2	13	1							
	.....2002..	123 223	44 737	37 122	41 364	148 425	57 677	43 888	46 860	X	X	X	X							
334416	Electronic coil, transformer, and other inductor manufacturing....2003..	170 963	51 484	31 262	88 216	174 322	55 287	31 161	87 874	2	3	1	2							
	.....2002..	162 549	54 757	27 741	80 051	184 626	62 357	26 866	95 403	X	X	X	X							
334417	Electronic connector manufacturing.....2003..	559 567	136 518	143 468	279 581	611 813	148 478	150 857	312 478	1	1	2	2							
	.....2002..	605 361	147 396	148 721	309 244	664 184	176 400	170 406	317 378	X	X	X	X							
334418	Printed circuit assembly (electronic assembly) manufacturing.....2003..	2 898 912	373 874	662 967	1 862 071	3 009 936	401 388	617 317	1 991 231	2	6	5	3							
	.....2002..	3 028 350	420 535	613 672	1 994 143	3 667 443	523 574	740 472	2 403 397	X	X	X	X							
334419	Other electronic component manufacturing.....2003..	1 448 925	283 000	378 601	787 325	1 543 401	288 199	404 583	850 619	1	3	2	1							
	.....2002..	1 647 507	317 007	446 036	884 464	1 809 040	356 892	489 977	962 171	X	X	X	X							
3345	Navigational, measuring, electromedical, and control instruments manufacturing.....2003..	14 596 205	2 931 136	6 262 233	5 402 835	14 214 392	3 026 055	5 513 232	5 675 105	1	1	1	1							
	.....2002..	14 504 023	3 127 974	5 592 200	5 783 849	16 036 742	3 363 615	6 601 234	6 071 893	X	X	X	X							
33451	Navigational, measuring, medical, and control instruments manufacturing.....2003..	14 596 205	2 931 136	6 262 233	5 402 835	14 214 392	3 026 055	5 513 232	5 675 105	1	1	1	1							
	.....2002..	14 504 023	3 127 974	5 592 200	5 783 849	16 036 742	3 363 615	6 601 234	6 071 893	X	X	X	X							
334510	Electromedical and electrotherapeutic apparatus manufacturing.....2003..	2 105 048	731 690	447 041	926 318	2 087 976	717 892	457 181	912 902	1	1	1	1							
	.....2002..	2 146 711	731 494	485 291	929 926	2 236 258	812 597	498 624	925 037	X	X	X	X							
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing.....2003..	5 312 994	258 330	4 273 047	781 616	4 568 707	299 966	3 403 823	864 918	1	3	1	2							
	.....2002..	4 651 823	368 547	3 418 770	864 506	5 772 041	432 016	4 287 001	1 053 024	X	X	X	X							
334512	Automatic environmental control manufacturing for residential, commercial, and appliance use.....2003..	310 216	83 984	102 584	123 648	330 439	89 100	120 485	120 854	2	1	4	1							
	.....2002..	321 804	85 159	115 390	121 255	384 124	113 581	124 617	145 926	X	X	X	X							

See footnotes at end of table.

**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.**

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—				
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.					
		A	B	C	D	E	F	G	H	A	B	C	D	
334	Computer and electronic product manufacturing—Con.													
3345	Navigational, measuring, electromedical, and control instruments manufacturing—Con.													
33451	Navigational, measuring, medical, and control instruments manufacturing—Con.													
334513	Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables .....	2003.. 1 073 596	265 417	184 303	623 875	1 129 075	255 769	213 483	659 822	2	2	3	2	
		2002.. 1 154 015	257 755	217 584	678 676	1 219 446	282 644	267 972	668 830	X	X	X	X	
334514	Totalizing fluid meter and counting device manufacturing .....	2003.. 260 714	33 028	91 655	136 031	338 012	64 794	101 914	171 304	9	48	8	11	
		2002.. 336 022	62 194	103 506	170 322	347 961	72 512	90 723	184 726	X	X	X	X	
334515	Instrument manufacturing for measuring and testing electricity and electrical signals .....	2003.. 2 388 064	520 673	483 322	1 384 069	2 560 178	538 127	539 781	1 482 270	1	2	1	2	
		2002.. 2 553 037	527 835	544 247	1 480 955	2 688 180	632 738	639 307	1 416 135	X	X	X	X	
334516	Analytical laboratory instrument manufacturing .....	2003.. 1 220 210	416 052	166 545	637 613	1 180 748	411 552	151 419	617 776	2	4	4	2	
		2002.. 1 175 460	406 921	154 970	613 569	1 232 989	340 946	164 887	727 156	X	X	X	X	
334517	Irradiation apparatus manufacturing .....	2003.. 677 590	237 865	140 316	299 409	753 812	249 332	154 116	350 364	1	2	2	1	
		2002.. 820 723	245 881	179 857	394 985	724 880	201 497	150 078	373 305	X	X	X	X	
334518	Watch, clock, and parts manufacturing .....	2003.. 99 219	54 006	19 176	26 037	100 153	51 357	20 659	28 137	5	5	7	5	
		2002.. 113 866	61 636	21 921	30 309	102 921	46 305	29 496	27 120	X	X	X	X	
334519	Other measuring and controlling device manufacturing .....	2003.. 1 148 553	330 090	354 244	464 219	1 165 293	348 165	350 370	466 757	2	3	4	3	
		2002.. 1 230 562	380 552	350 664	499 346	1 327 942	428 779	348 529	550 634	X	X	X	X	
3346	Manufacturing and reproducing magnetic and optical media .....	2003.. 388 007	84 675	71 060	232 272	394 781	87 617	71 086	236 079	2	6	5	3	
		2002.. 393 059	95 806	69 418	227 835	442 520	121 362	69 880	251 278	X	X	X	X	
33461	Manufacturing and reproducing magnetic and optical media .....	2003.. 388 007	84 675	71 060	232 272	394 781	87 617	71 086	236 079	2	6	5	3	
		2002.. 393 059	95 806	69 418	227 835	442 520	121 362	69 880	251 278	X	X	X	X	
334611	Software reproducing .....	2003.. 24 737	8 061	3 993	12 683	24 079	7 405	3 971	12 703	7	10	4	11	
		2002.. 24 661	6 562	3 824	14 275	23 991	6 607	3 967	13 417	X	X	X	X	
334612	Prerecorded compact disc (except software), tape, and record reproducing .....	2003.. 181 024	54 131	27 596	99 297	175 109	47 408	27 909	99 793	4	8	3	4	
		2002.. 190 731	61 214	26 646	102 871	194 187	59 728	23 428	111 031	X	X	X	X	
334613	Magnetic and optical recording media manufacturing .....	2003.. 182 245	22 482	39 471	120 292	195 593	32 805	39 206	123 583	2	10	8	4	
		2002.. 177 667	28 030	38 948	110 689	224 342	55 027	42 485	126 830	X	X	X	X	
335	Electrical equipment, appliance, and component manufacturing .....	2003.. 11 402 647	4 277 440	2 447 424	4 677 784	11 879 082	4 401 608	2 578 764	4 898 710	1	1	1	1	
		2002.. 12 115 068	4 464 847	2 700 710	4 949 511	12 645 282	4 616 784	2 895 934	5 132 564	X	X	X	X	
3351	Electric lighting equipment manufacturing .....	2003.. 1 349 345	508 863	212 979	627 502	1 418 181	524 396	219 296	674 489	3	4	6	3	
		2002.. 1 457 821	536 222	229 969	691 630	1 495 911	527 294	224 810	743 807	X	X	X	X	
33511	Electric lamp bulb and parts manufacturing .....	2003.. 212 402	98 907	31 923	81 572	212 825	92 562	27 297	92 966	1	3	4	5	
		2002.. 211 333	91 534	27 090	92 709	192 742	79 798	23 746	89 198	X	X	X	X	
335110	Electric lamp bulb and parts manufacturing .....	2003.. 212 402	98 907	31 923	81 572	212 825	92 562	27 297	92 966	1	3	4	5	
		2002.. 211 333	91 534	27 090	92 709	192 742	79 798	23 746	89 198	X	X	X	X	
33512	Lighting fixture manufacturing .....	2003.. 1 136 943	409 957	181 057	545 930	1 205 356	431 834	191 999	581 523	3	4	7	3	
		2002.. 1 246 488	444 688	202 879	598 921	1 303 169	447 496	201 064	654 609	X	X	X	X	
33512M	Lighting fixture manufacturing .....	2003.. 1 136 943	409 957	181 057	545 930	1 205 356	431 834	191 999	581 523	3	4	7	3	
		2002.. 1 246 488	444 688	202 879	598 921	1 303 169	447 496	201 064	654 609	X	X	X	X	
3352	Household appliance manufacturing .....	2003.. 1 699 040	979 037	199 663	520 340	1 764 301	1 006 505	213 770	544 026	1	1	1	1	
		2002.. 1 804 868	1 021 376	222 798	560 694	1 838 910	1 059 975	214 435	564 500	X	X	X	X	
33521	Small electrical appliance manufacturing .....	2003.. 541 974	328 389	93 630	119 955	538 984	317 892	92 794	128 298	1	1	1	1	
		2002.. 568 808	328 397	98 005	142 406	545 318	304 776	84 028	156 514	X	X	X	X	
33521M	Small electrical appliance manufacturing .....	2003.. 541 974	328 389	93 630	119 955	538 984	317 892	92 794	128 298	1	1	1	1	
		2002.. 568 808	328 397	98 005	142 406	545 318	304 776	84 028	156 514	X	X	X	X	
33522	Major appliance manufacturing .....	2003.. 1 157 066	650 648	106 034	400 385	1 225 317	688 613	120 976	415 728	1	1	2	1	
		2002.. 1 236 060	692 979	124 793	418 288	1 293 592	755 199	130 407	407 986	X	X	X	X	
335221	Household cooking appliance manufacturing .....	2003.. 356 856	185 461	30 285	141 110	409 240	224 639	35 940	148 662	2	2	5	2	
		2002.. 416 873	228 407	37 460	151 006	392 687	213 100	37 960	141 627	X	X	X	X	
335222	Household refrigerator and home freezer manufacturing .....	2003.. 313 987	188 953	21 758	103 276	352 391	211 750	21 854	118 787	1	2	1	1	
		2002.. 352 034	211 606	21 839	118 589	404 562	250 446	27 842	126 274	X	X	X	X	
335224	Household laundry equipment manufacturing .....	2003.. 212 332	132 867	20 970	58 495	232 896	136 491	29 265	67 140	1	1	1	1	
		2002.. 233 185	136 666	29 331	67 188	263 464	164 379	35 705	63 380	X	X	X	X	

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		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D						
		A	B	C	D	E	F	G	H	A	B	C	D						
335	Electrical equipment, appliance, and component manufacturing—Con.																		
3352	Household appliance manufacturing—Con.																		
33522	Major appliance manufacturing—Con.																		
335228	Other major household appliance manufacturing	2003.. 273 891	143 366	33 020	97 504	230 790	115 733	33 917	81 139	1	2	3	3						
		2002.. 233 968	116 300	36 163	81 505	232 879	127 274	28 900	76 705	X	X	X	X						
3353	Electrical equipment manufacturing	2003.. 3 738 454	1 054 757	972 413	1 711 285	3 835 435	1 034 266	993 621	1 807 547	1	2	3	1						
		2002.. 3 875 663	1 027 320	1 040 302	1 808 041	4 142 745	1 115 898	1 129 747	1 897 100	X	X	X	X						
33531	Electrical equipment manufacturing	2003.. 3 738 454	1 054 757	972 413	1 711 285	3 835 435	1 034 266	993 621	1 807 547	1	2	3	1						
		2002.. 3 875 663	1 027 320	1 040 302	1 808 041	4 142 745	1 115 898	1 129 747	1 897 100	X	X	X	X						
335311	Power, distribution, and specialty transformer manufacturing	2003.. 515 513	165 538	124 463	225 512	557 424	184 466	123 373	249 585	1	1	2	2						
		2002.. 516 284	168 448	115 704	232 132	556 743	187 245	130 759	238 739	X	X	X	X						
335312	Motor and generator manufacturing	2003.. 1 215 124	411 763	317 586	485 775	1 208 866	409 151	305 488	494 226	2	4	7	2						
		2002.. 1 241 403	415 616	318 886	506 901	1 337 637	453 524	347 760	536 353	X	X	X	X						
335313	Switchgear and switchboard apparatus manufacturing	2003.. 790 108	187 641	213 064	389 400	826 016	175 571	227 232	423 213	2	1	4	2						
		2002.. 847 772	179 609	236 448	431 715	908 491	195 239	257 300	455 952	X	X	X	X						
335314	Relay and industrial control manufacturing	2003.. 1 217 710	289 814	317 300	610 596	1 243 130	265 078	337 528	640 524	2	3	3	2						
		2002.. 1 270 204	263 647	369 264	637 293	1 339 874	279 890	393 928	666 056	X	X	X	X						
3359	Other electrical equipment and component manufacturing	2003.. 4 615 807	1 734 783	1 062 368	1 818 656	4 861 166	1 836 441	1 152 076	1 872 648	1	1	1	1						
		2002.. 4 976 716	1 879 929	1 207 641	1 889 146	5 167 716	1 913 617	1 326 942	1 927 157	X	X	X	X						
33591	Battery manufacturing	2003.. 522 977	168 524	181 438	173 015	532 801	155 273	217 995	159 533	2	2	2	4						
		2002.. 533 656	155 076	219 740	158 840	576 257	170 145	229 290	176 822	X	X	X	X						
335911	Storage battery manufacturing	2003.. 338 213	143 603	98 823	95 786	345 720	142 358	108 095	95 267	2	3	3	3						
		2002.. 346 510	142 158	109 799	94 553	384 283	160 179	113 842	110 262	X	X	X	X						
335912	Primary battery manufacturing	2003.. 184 764	24 921	82 615	77 229	187 081	12 915	109 900	64 266	5	5	3	8						
		2002.. 187 146	12 918	109 941	64 287	191 974	9 966	115 448	66 560	X	X	X	X						
33592	Communication and energy wire and cable manufacturing	2003.. 1 233 185	600 160	266 627	366 398	1 367 797	696 702	284 753	386 341	2	2	2	3						
		2002.. 1 459 598	738 453	300 870	420 275	1 587 553	749 534	380 449	457 570	X	X	X	X						
33592M	Communication and energy wire and cable manufacturing	2003.. 1 233 185	600 160	266 627	366 398	1 367 797	696 702	284 753	386 341	2	2	2	3						
		2002.. 1 459 598	738 453	300 870	420 275	1 587 553	749 534	380 449	457 570	X	X	X	X						
33593	Wiring device manufacturing	2003.. 1 018 489	416 738	181 100	420 651	1 132 323	446 812	209 733	475 778	1	2	1	1						
		2002.. 1 127 972	434 904	212 250	480 818	1 152 868	446 357	232 454	474 057	X	X	X	X						
33593M	Wiring device manufacturing	2003.. 1 018 489	416 738	181 100	420 651	1 132 323	446 812	209 733	475 778	1	2	1	1						
		2002.. 1 127 972	434 904	212 250	480 818	1 152 868	446 357	232 454	474 057	X	X	X	X						
33599	All other electrical equipment and component manufacturing	2003.. 1 841 156	549 361	433 203	858 593	1 828 245	537 654	439 595	850 996	2	3	2	2						
		2002.. 1 855 490	551 496	474 781	829 213	1 851 038	547 581	484 749	818 708	X	X	X	X						
335991	Carbon and graphite product manufacturing	2003.. 364 290	117 699	148 152	98 438	376 880	122 781	156 467	97 632	2	6	1	5						
		2002.. 403 385	131 352	164 846	107 187	429 506	132 780	175 065	121 661	X	X	X	X						
335999	All other miscellaneous electrical equipment and component manufacturing	2003.. 1 476 866	431 662	285 050	760 154	1 451 365	414 874	283 128	753 363	2	3	2	2						
		2002.. 1 452 105	420 144	309 935	722 026	1 421 532	414 801	309 684	697 047	X	X	X	X						
336	Transportation equipment manufacturing	2003.. 59 592 239	10 419 147	33 683 181	15 489 910	60 760 829	11 014 648	34 041 880	15 704 302	1	1	1	1						
		2002.. 61 055 164	11 012 432	34 184 675	15 858 057	62 150 911	11 518 696	34 154 741	16 477 474	X	X	X	X						
3361	Motor vehicle manufacturing	2003.. 4 890 328	527 566	1 588 446	2 774 316	4 571 542	441 235	1 431 642	2 698 666	1	1	1	1						
		2002.. 4 621 166	454 600	1 446 705	2 719 861	4 408 295	424 319	1 559 989	2 423 987	X	X	X	X						
33611	Automobile and light duty motor vehicle manufacturing	2003.. 3 890 389	338 560	1 274 242	2 267 586	3 657 897	302 594	1 160 118	2 195 184	1	1	1	1						
		2002.. 3 668 492	314 843	1 156 948	2 196 701	3 530 628	250 533	1 270 784	2 009 311	X	X	X	X						
336111	Automobile manufacturing	2003.. 1 760 958	108 426	412 227	1 240 304	1 667 655	83 777	373 728	1 210 149	1	1	1	1						
		2002.. 1 581 178	79 456	393 010	1 108 712	1 625 223	68 879	379 022	1 177 322	X	X	X	X						
336112	Light truck and utility vehicle manufacturing	2003.. 2 119 431	230 134	862 015	1 027 282	1 990 242	218 817	786 390	985 035	1	1	1	1						
		2002.. 2 087 314	235 387	763 938	1 087 989	1 905 405	181 654	891 762	831 989	X	X	X	X						
33612	Heavy duty truck manufacturing	2003.. 1 009 939	189 005	314 204	506 729	913 645	138 640	271 523	503 481	1	1	1	1						
		2002.. 952 674	139 757	289 757	523 160	877 667	173 786	289 205	414 676	X	X	X	X						
336120	Heavy duty truck manufacturing	2003.. 1 009 939	189 005	314 204	506 729	913 645	138 640	271 523	503 481	1	1	1	1						
		2002.. 952 674	139 757	289 757	523 160	877 667	173 786	289 205	414 676	X	X	X	X						
3362	Motor vehicle body and trailer manufacturing	2003.. 3 060 902	866 768	809 849	1 384 285	3 033 092	892 512	740 527	1 400 053	2	2	3	2						
		2002.. 3 135 194	908 288	772 342	1 454 564	2 945 106	917 400	705 224	1 322 482	X	X	X	X						

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		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.															
		A	B	C	D	E	F	G	H	A	B	C	D											
336	Transportation equipment manufacturing—Con.																							
3362	Motor vehicle body and trailer manufacturing—Con.																							
33621	Motor vehicle body and trailer manufacturing .....	2003.. 3 060 902	866 768	809 849	1 384 285	3 033 092	892 512	740 527	1 400 053	2	2	3	2											
		2002.. 3 135 194	908 288	772 342	1 454 564	2 945 106	917 400	705 224	1 322 482	X	X	X	X											
336211	Motor vehicle body manufacturing .....	2003.. 1 237 884	334 277	426 601	477 006	1 231 697	310 779	399 484	521 433	3	1	4	4											
		2002.. 1 229 207	304 961	405 836	518 410	1 188 387	345 435	363 274	479 678	X	X	X	X											
336212	Truck trailer manufacturing .....	2003.. 514 317	128 186	115 872	270 258	534 422	134 860	116 463	283 099	6	6	7	8											
		2002.. 593 991	149 761	120 857	323 373	593 127	161 635	105 943	325 549	X	X	X	X											
336213	Motor home manufacturing .....	2003.. 702 134	183 586	194 819	323 729	667 319	208 461	153 803	305 055	3	5	7	1											
		2002.. 698 973	209 551	175 566	313 856	622 559	194 911	167 691	259 957	X	X	X	X											
336214	Travel trailer and camper manufacturing .....	2003.. 606 567	220 719	72 556	313 291	599 653	238 411	70 776	290 465	3	5	4	3											
		2002.. 613 023	244 015	70 083	298 925	541 033	215 419	68 316	257 298	X	X	X	X											
3363	Motor vehicle parts manufacturing .....	2003.. 13 238 699	3 810 007	3 430 147	5 998 544	12 983 470	3 829 537	3 339 632	5 814 301	1	1	1	1											
		2002.. 13 148 875	3 853 023	3 385 458	5 910 394	12 532 312	3 727 276	3 082 008	5 723 028	X	X	X	X											
33631	Motor vehicle gasoline engine and engine parts manufacturing .....	2003.. 2 444 508	449 235	684 546	1 310 727	2 227 246	489 448	688 466	1 049 332	1	3	1	1											
		2002.. 2 217 853	491 988	684 032	1 041 833	2 047 885	470 866	600 689	976 330	X	X	X	X											
33631M	Motor vehicle gasoline engine and engine parts manufacturing .....	2003.. 2 444 508	449 235	684 546	1 310 727	2 227 246	489 448	688 466	1 049 332	1	3	1	1											
		2002.. 2 217 853	491 988	684 032	1 041 833	2 047 885	470 866	600 689	976 330	X	X	X	X											
33632	Motor vehicle electrical and electronic equipment manufacturing .....	2003.. 2 366 890	825 277	479 852	1 061 761	2 382 505	807 018	462 803	1 112 684	1	1	1	3											
		2002.. 2 384 870	805 324	462 906	1 116 640	2 412 060	820 199	412 147	1 179 714	X	X	X	X											
33632M	Motor vehicle electrical and electronic equipment manufacturing .....	2003.. 2 366 890	825 277	479 852	1 061 761	2 382 505	807 018	462 803	1 112 684	1	1	1	3											
		2002.. 2 384 870	805 324	462 906	1 116 640	2 412 060	820 199	412 147	1 179 714	X	X	X	X											
33633	Motor vehicle steering and suspension component (except spring) manufacturing .....	2003.. 706 739	207 485	174 810	324 444	723 155	206 886	195 426	320 843	2	1	1	5											
		2002.. 665 495	178 455	168 520	318 520	668 591	161 318	168 605	338 668	X	X	X	X											
336330	Motor vehicle steering and suspension component (except spring) manufacturing .....	2003.. 706 739	207 485	174 810	324 444	723 155	206 886	195 426	320 843	2	1	1	5											
		2002.. 665 495	178 455	168 520	318 520	668 591	161 318	168 605	338 668	X	X	X	X											
33634	Motor vehicle brake system manufacturing .....	2003.. 889 135	329 718	135 363	424 054	903 888	341 752	131 833	430 303	1	1	3	1											
		2002.. 922 195	352 097	133 604	436 494	841 898	318 559	137 178	386 161	X	X	X	X											
336340	Motor vehicle brake system manufacturing .....	2003.. 889 135	329 718	135 363	424 054	903 888	341 752	131 833	430 303	1	1	3	1											
		2002.. 922 195	352 097	133 604	436 494	841 898	318 559	137 178	386 161	X	X	X	X											
33635	Motor vehicle transmission and power train parts manufacturing .....	2003.. 2 432 338	687 005	924 159	821 174	2 144 322	638 354	703 861	802 108	2	2	2	3											
		2002.. 2 277 468	650 858	755 883	870 727	2 095 153	626 816	674 213	794 124	X	X	X	X											
336350	Motor vehicle transmission and power train parts manufacturing .....	2003.. 2 432 338	687 005	924 159	821 174	2 144 322	638 354	703 861	802 108	2	2	2	3											
		2002.. 2 277 468	650 858	755 883	870 727	2 095 153	626 816	674 213	794 124	X	X	X	X											
33636	Motor vehicle seating and interior trim manufacturing .....	2003.. 521 136	111 172	77 877	332 087	507 352	121 179	79 066	307 107	1	1	6	3											
		2002.. 514 588	120 886	77 526	316 176	477 873	128 983	79 626	269 264	X	X	X	X											
336360	Motor vehicle seating and interior trim manufacturing .....	2003.. 521 136	111 172	77 877	332 087	507 352	121 179	79 066	307 107	1	1	6	3											
		2002.. 514 588	120 886	77 526	316 176	477 873	128 983	79 626	269 264	X	X	X	X											
33637	Motor vehicle metal stamping .....	2003.. 1 245 744	328 079	453 308	464 358	1 323 191	325 354	492 253	505 584	2	4	2	3											
		2002.. 1 357 526	323 538	513 361	520 627	1 227 755	306 221	464 983	456 551	X	X	X	X											
336370	Motor vehicle metal stamping .....	2003.. 1 245 744	328 079	453 308	464 358	1 323 191	325 354	492 253	505 584	2	4	2	3											
		2002.. 1 357 526	323 538	513 361	520 627	1 227 755	306 221	464 983	456 551	X	X	X	X											
33639	Other motor vehicle parts manufacturing .....	2003.. 2 632 210	872 038	500 233	1 259 939	2 771 811	899 547	585 924	1 286 340	1	3	3	2											
		2002.. 2 808 880	929 877	589 626	1 289 377	2 761 097	894 314	544 567	1 322 216	X	X	X	X											
336391	Motor vehicle air-conditioning manufacturing .....	2003.. 406 964	131 953	68 477	206 533	403 490	108 735	83 965	210 790	1	2	1	2											
		2002.. 419 041	113 265	87 862	217 914	417 671	121 668	82 270	213 733	X	X	X	X											
336399	All other miscellaneous motor vehicle parts manufacturing .....	2003.. 2 225 246	740 084	431 756	1 053 406	2 368 321	790 812	501 959	1 075 550	2	3	3	2											
		2002.. 2 389 839	816 612	501 764	1 071 463	2 343 426	772 646	462 297	1 108 483	X	X	X	X											
3364	Aerospace product and parts manufacturing .....	2003.. 33 160 700	4 007 387	25 562 456	3 590 857	34 997 412	4 621 861	26 237 256	4 138 295	1	1	1	2											
		2002.. 35 028 496	4 587 344	26 303 268	4 137 884	37 060 550	5 120 697	26 585 094	5 354 759	X	X	X	X											
33641	Aerospace product and parts manufacturing .....	2003.. 33 160 700	4 007 387	25 562 456	3 590 857	34 997 412	4 621 861	26 237 256	4 138 295	1	1	1	2											
		2002.. 35 028 496	4 587 344	26 303 268	4 137 884	37 060 550	5 120 697	26 585 094	5 354 759	X	X	X	X											
336411	Aircraft manufacturing .....	2003.. 23 957 800	2 300 174	19 638 303	2 019 323	25 137 825	2 814 625	19 896 955	2 426 245	1	1	1	3											
		2002.. 25 122 764	2 790 908	19 910 506	2 421 350	26 555 096	3 158 806	19 797 644	3 598 646	X	X	X	X											
336412	Aircraft engine and engine parts manufacturing .....	2003.. 2 912 516	916 928	1 334 935	660 654	3 068 434	1 025 400	1 382 709	660 325	1	3	1	2											
		2002.. 3 069 240	1 021 978	1 395 807	651 455	3 200 769	1 169 147	1 515 950	515 672	X	X	X	X											

See footnotes at end of table.

**Table 6. Value of Manufacturers Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of Year—Con.**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—				
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.					
		A	B	C	D	E	F	G	H	A	B	C	D	
336	Transportation equipment manufacturing—Con.													
3364	Aerospace product and parts manufacturing—Con.													
33641	Aerospace product and parts manufacturing—Con.													
336413	Other aircraft parts and auxiliary equipment manufacturing . . . . .	2003.. 4 661 173	769 545	3 069 767	821 860	5 138 407	760 077	3 416 736	961 593	1	3	1	4	
		2002.. 5 184 681	752 577	3 458 413	973 691	5 619 754	768 062	3 754 271	1 097 421	X	X	X	X	
336414	Guided missile and space vehicle manufacturing . . . . .	2003.. 904 949	1 864	867 303	35 782	959 964	1 969	913 838	44 157	1	1	1	1	
		2002.. 959 810	1 969	913 874	43 967	979 737	1 301	895 495	82 941	X	X	X	X	
336415	Guided missile and space vehicle propulsion unit and propulsion unit parts manufacturing . . . . .	2003.. 611 154	9 301	565 642	36 211	600 042	9 535	560 142	30 364	2	4	1	11	
		2002.. 580 977	9 658	540 095	31 224	624 352	10 072	567 143	47 137	X	X	X	X	
336419	Other guided missile and space vehicle parts and auxiliary equipment manufacturing . . . . .	2003.. 113 108	9 575	86 506	17 027	92 741	10 255	66 875	15 611	1	1	1	2	
		2002.. 111 024	10 254	84 573	16 197	80 842	13 309	54 591	12 942	X	X	X	X	
3365	Railroad rolling stock manufacturing . . . . .	2003.. 1 428 803	402 501	599 416	426 885	1 463 040	475 933	622 034	365 073	1	1	1	1	
		2002.. 1 376 285	445 762	602 490	328 033	1 430 171	474 726	610 247	345 198	X	X	X	X	
33651	Railroad rolling stock manufacturing . . . . .	2003.. 1 428 803	402 501	599 416	426 885	1 463 040	475 933	622 034	365 073	1	1	1	1	
		2002.. 1 376 285	445 762	602 490	328 033	1 430 171	474 726	610 247	345 198	X	X	X	X	
336510	Railroad rolling stock manufacturing . . . . .	2003.. 1 428 803	402 501	599 416	426 885	1 463 040	475 933	622 034	365 073	1	1	1	1	
		2002.. 1 376 285	445 762	602 490	328 033	1 430 171	474 726	610 247	345 198	X	X	X	X	
3366	Ship and boat building . . . . .	2003.. 2 372 198	440 238	1 294 511	637 449	2 268 370	391 874	1 247 377	629 119	2	4	3	3	
		2002.. 2 260 006	399 163	1 229 108	631 735	2 227 947	384 619	1 192 552	650 776	X	X	X	X	
33661	Ship and boat building . . . . .	2003.. 2 372 198	440 238	1 294 511	637 449	2 268 370	391 874	1 247 377	629 119	2	4	3	3	
		2002.. 2 260 006	399 163	1 229 108	631 735	2 227 947	384 619	1 192 552	650 776	X	X	X	X	
336611	Ship building and repairing . . . . .	2003.. 1 271 383	80 634	1 005 567	185 181	1 182 179	73 411	916 491	192 277	3	14	3	3	
		2002.. 1 145 904	63 930	897 561	184 413	1 155 259	42 094	892 046	221 119	X	X	X	X	
336612	Boat building . . . . .	2003.. 1 100 815	359 603	288 944	452 268	1 086 191	318 463	330 886	436 842	2	5	7	3	
		2002.. 1 114 102	335 233	331 547	447 322	1 072 688	342 525	300 506	429 657	X	X	X	X	
3369	Other transportation equipment manufacturing . . . . .	2003.. 1 440 609	364 680	398 355	677 574	1 443 903	361 696	423 412	658 795	2	2	3	3	
		2002.. 1 485 142	364 252	445 304	675 586	1 546 530	469 659	419 627	657 244	X	X	X	X	
33699	Other transportation equipment manufacturing . . . . .	2003.. 1 440 609	364 680	398 355	677 574	1 443 903	361 696	423 412	658 795	2	2	3	3	
		2002.. 1 485 142	364 252	445 304	675 586	1 546 530	469 659	419 627	657 244	X	X	X	X	
336991	Motorcycle, bicycle, and parts manufacturing . . . . .	2003.. 382 486	123 131	106 261	153 095	397 273	129 070	98 704	169 500	2	3	3	2	
		2002.. 396 914	129 543	98 743	168 628	441 439	211 052	92 126	138 261	X	X	X	X	
336992	Military armored vehicle, tank, and tank component manufacturing . . . . .	2003.. 486 091	7 128	260 459	218 504	485 908	6 016	278 522	201 370	2	36	1	1	
		2002.. 504 884	4 729	283 831	216 324	452 651	3 857	255 098	193 696	X	X	X	X	
336999	All other transportation equipment manufacturing . . . . .	2003.. 572 032	234 422	31 635	305 975	560 722	226 610	46 187	287 925	4	3	28	6	
		2002.. 583 344	229 980	62 730	290 634	652 440	254 750	72 403	325 287	X	X	X	X	
337	Furniture and related product manufacturing . . . . .	2003.. 7 488 750	2 709 129	1 396 538	3 383 084	7 470 218	2 724 048	1 394 202	3 351 969	1	1	1	2	
		2002.. 7 743 076	2 806 384	1 443 172	3 493 520	7 428 879	2 646 132	1 406 549	3 376 198	X	X	X	X	
3371	Household and institutional furniture and kitchen cabinet manufacturing . . . . .	2003.. 5 094 690	1 883 984	930 335	2 280 371	5 021 657	1 918 324	934 561	2 168 772	1	1	2	1	
		2002.. 5 200 824	1 973 568	967 982	2 259 274	4 880 769	1 800 785	951 654	2 128 330	X	X	X	X	
33711	Wood kitchen cabinet and counter top manufacturing . . . . .	2003.. 1 096 257	229 880	273 396	592 980	952 173	210 899	253 291	487 983	2	3	2	3	
		2002.. 968 184	211 392	257 996	498 796	935 395	216 647	255 148	463 600	X	X	X	X	
337110	Wood kitchen cabinet and counter top manufacturing . . . . .	2003.. 1 096 257	229 880	273 396	592 980	952 173	210 899	253 291	487 983	2	3	2	3	
		2002.. 968 184	211 392	257 996	498 796	935 395	216 647	255 148	463 600	X	X	X	X	
33712	Household and institutional furniture manufacturing . . . . .	2003.. 3 998 434	1 654 104	656 939	1 687 391	4 069 485	1 707 425	681 270	1 680 790	1	1	2	1	
		2002.. 4 232 640	1 762 176	709 986	1 760 478	3 945 374	1 584 138	696 506	1 664 730	X	X	X	X	
337121	Upholstered household furniture manufacturing . . . . .	2003.. 1 029 219	240 047	136 675	652 497	973 216	227 429	130 276	615 512	2	3	4	1	
		2002.. 1 007 300	224 827	144 857	637 616	904 484	198 175	143 157	563 152	X	X	X	X	
337122	Nonupholstered wood household furniture manufacturing . . . . .	2003.. 2 005 429	1 092 891	343 436	569 102	2 109 816	1 141 604	379 164	589 048	1	1	4	3	
		2002.. 2 184 072	1 174 523	387 161	622 388	1 985 414	1 015 334	371 762	598 318	X	X	X	X	
337127	Institutional furniture manufacturing . . . . .	2003.. 517 505	139 251	108 839	269 415	540 680	156 841	105 109	278 731	3	5	4	3	
		2002.. 551 043	158 961	105 576	286 506	540 689	154 054	107 004	279 631	X	X	X	X	
33712N	Other household nonupholstered furniture . . . . .	2003.. 446 281	181 915	67 989	196 377	445 772	181 552	66 722	197 499	4	5	4	4	
		2002.. 490 225	203 865	72 392	213 968	514 787	216 575	74 583	223 629	X	X	X	X	

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—				
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.					
		A	B	C	D	E	F	G	H	A	B	C	D	
337	Furniture and related product manufacturing—Con.													
3372	Office furniture (including fixtures) manufacturing .....	2003.. 1 826 613	648 003	418 006	760 603	1 879 745	640 253	411 987	827 506	3	4	2	6	
		2002.. 1 942 582	660 662	421 743	860 177	1 929 560	653 296	406 127	870 137	X	X	X	X	
33721	Office furniture (including fixtures) manufacturing .....	2003.. 1 826 613	648 003	418 006	760 603	1 879 745	640 253	411 987	827 506	3	4	2	6	
		2002.. 1 942 582	660 662	421 743	860 177	1 929 560	653 296	406 127	870 137	X	X	X	X	
337212	Custom architectural woodwork and millwork manufacturing .....	2003.. 355 501	121 149	103 792	130 560	348 405	114 531	99 680	134 194	4	10	6	9	
		2002.. 349 989	117 612	99 156	133 221	347 527	120 491	96 271	130 765	X	X	X	X	
337215	Showcase, partition, shelving, and locker manufacturing .....	2003.. 974 786	401 359	189 441	383 986	990 017	407 026	194 238	388 754	3	5	3	3	
		2002.. 1 022 832	418 216	199 538	405 078	980 290	409 459	188 987	381 844	X	X	X	X	
33721N	Office furniture manufacturing .....	2003.. 496 326	125 495	124 774	246 057	541 322	118 695	118 069	304 558	10	9	2	16	
		2002.. 569 761	124 834	123 049	321 878	601 743	123 346	120 869	357 528	X	X	X	X	
3379	Other furniture related product manufacturing .....	2003.. 567 448	177 142	48 196	342 109	568 816	165 471	47 655	355 691	1	1	3	2	
		2002.. 599 670	172 154	53 447	374 069	618 550	192 051	48 768	377 731	X	X	X	X	
33791	Mattress manufacturing .....	2002.. 218 896	53 454	19 768	145 674	213 736	48 347	21 960	143 429	2	3	7	2	
		2003.. 233 000	51 620	26 516	154 864	207 781	48 182	18 788	140 811	X	X	X	X	
337910	Mattress manufacturing .....	2003.. 218 896	53 454	19 768	145 674	213 736	48 347	21 960	143 429	2	3	7	2	
		2002.. 233 000	51 620	26 516	154 864	207 781	48 182	18 788	140 811	X	X	X	X	
33792	Blind and shade manufacturing .....	2003.. 348 551	123 688	28 428	196 435	355 080	117 124	25 695	212 262	2	2	2	4	
		2002.. 366 670	120 534	26 931	219 205	410 769	143 869	29 980	236 920	X	X	X	X	
337920	Blind and shade manufacturing .....	2003.. 348 551	123 688	28 428	196 435	355 080	117 124	25 695	212 262	2	2	2	4	
		2002.. 366 670	120 534	26 931	219 205	410 769	143 869	29 980	236 920	X	X	X	X	
339	Miscellaneous manufacturing .....	2003.. 18 462 867	9 221 971	3 022 476	6 218 420	17 362 760	8 414 623	2 887 104	6 061 033	1	1	1	1	
		2002.. 17 628 657	8 533 844	2 919 162	6 175 651	17 896 826	8 675 544	2 905 493	6 315 789	X	X	X	X	
3391	Medical equipment and supplies manufacturing .....	2003.. 8 597 315	4 336 872	1 510 000	2 750 444	7 615 432	3 629 261	1 300 718	2 685 452	1	2	2	2	
		2002.. 7 816 993	3 699 184	1 336 705	2 781 104	8 048 646	3 870 521	1 309 706	2 868 419	X	X	X	X	
33911	Medical equipment and supplies manufacturing .....	2003.. 8 597 315	4 336 872	1 510 000	2 750 444	7 615 432	3 629 261	1 300 718	2 685 452	1	2	2	2	
		2002.. 7 816 993	3 699 184	1 336 705	2 781 104	8 048 646	3 870 521	1 309 706	2 868 419	X	X	X	X	
339111	Laboratory apparatus and furniture manufacturing .....	2003.. 614 687	197 356	114 069	303 262	617 502	214 239	116 152	287 111	2	8	5	4	
		2002.. 654 841	226 933	116 795	311 113	671 128	220 031	123 695	327 402	X	X	X	X	
339112	Surgical and medical instrument manufacturing .....	2003.. 2 629 985	1 080 262	496 599	1 053 124	2 425 812	923 271	509 633	992 908	4	5	3	4	
		2002.. 2 526 225	963 122	521 640	1 041 463	2 731 751	1 133 144	531 736	1 066 871	X	X	X	X	
339113	Surgical appliance and supplies manufacturing .....	2003.. 4 312 646	2 495 615	738 759	1 078 272	3 373 927	1 847 829	510 064	1 016 034	2	2	3	3	
		2002.. 3 376 951	1 832 399	505 782	1 038 770	3 436 180	1 875 019	474 741	1 086 420	X	X	X	X	
339114	Dental equipment and supplies manufacturing .....	2003.. 408 331	211 553	74 601	122 176	468 428	224 971	86 710	156 747	4	4	11	11	
		2002.. 477 167	219 504	109 326	148 337	466 124	210 457	99 351	156 316	X	X	X	X	
339115	Ophthalmic goods manufacturing .....	2003.. 444 683	281 817	44 148	118 718	536 700	343 420	35 299	157 981	4	4	5	3	
		2002.. 570 500	376 167	34 593	159 740	529 217	350 641	29 182	169 394	X	X	X	X	
339116	Dental laboratories .....	2003.. 186 984	70 268	41 824	74 891	193 063	75 532	42 860	74 671	6	10	10	9	
		2002.. 211 309	81 059	48 569	81 689	194 246	81 229	51 001	62 016	X	X	X	X	
3399	Other miscellaneous manufacturing .....	2003.. 9 865 551	4 885 100	1 512 476	3 467 976	9 747 328	4 785 361	1 586 386	3 375 581	1	1	1	1	
		2002.. 9 811 664	4 834 660	1 582 457	3 394 547	9 848 180	4 805 023	1 595 787	3 447 370	X	X	X	X	
33991	Jewelry and silverware manufacturing .....	2003.. 1 979 656	1 223 796	284 104	471 756	1 897 723	1 182 052	273 082	442 588	1	1	2	1	
		2002.. 1 961 110	1 232 475	277 255	451 380	1 982 809	1 242 391	279 396	461 022	X	X	X	X	
33991M	Jewelry and silverware manufacturing .....	2003.. 1 979 656	1 223 796	284 104	471 756	1 897 723	1 182 052	273 082	442 588	1	1	2	1	
		2002.. 1 961 110	1 232 475	277 255	451 380	1 982 809	1 242 391	279 396	461 022	X	X	X	X	
33992	Sporting and athletic goods manufacturing .....	2003.. 1 891 067	1 016 619	210 361	664 087	1 763 480	916 942	248 837	597 700	2	2	3	2	
		2002.. 1 796 861	930 010	248 981	617 870	1 915 066	1 017 011	265 803	632 252	X	X	X	X	
339920	Sporting and athletic goods manufacturing .....	2003.. 1 891 067	1 016 619	210 361	664 087	1 763 480	916 942	248 837	597 700	2	2	3	2	
		2002.. 1 796 861	930 010	248 981	617 870	1 915 066	1 017 011	265 803	632 252	X	X	X	X	
33993	Doll, toy, and game manufacturing .....	2003.. 711 121	414 546	57 693	238 883	764 108	449 848	66 993	247 266	2	3	7	3	
		2002.. 770 550	453 880	67 768	248 902	659 048	373 135	68 210	217 703	X	X	X	X	
33993M	Doll, toy, and game manufacturing .....	2003.. 711 121	414 546	57 693	238 883	764 108	449 848	66 993	247 266	2	3	7	3	
		2002.. 770 550	453 880	67 768	248 902	659 048	373 135	68 210	217 703	X	X	X	X	
33994	Office supplies (except paper) manufacturing .....	2003.. 554 010	237 494	99 000	217 516	508 026	222 732	105 548	179 747	8	4	2	17	
		2002.. 520 597	229 319	107 475	183 803	572 687	234 200	100 276	238 211	X	X	X	X	
33994M	Office supplies (except paper) manufacturing .....	2003.. 554 010	237 494	99 000	217 516	508 026	222 732	105 548	179 747	8	4	2	17	
		2002.. 520 597	229 319	107 475	183 803	572 687	234 200	100 276	238 211	X	X	X	X	
33995	Sign manufacturing .....	2003.. 962 608	268 003	275 951	418 653	955 835	254 648	291 142	410 044	2	6	3	2	
		2002.. 961 988	256 441	281 204	424 343	965 495	263 891	285 886	415 718	X	X	X	X	
339950	Sign manufacturing .....	2003.. 962 608	268 003	275 951	418 653	955 835	254 648	291 142	410 044	2	6	3	2	
		2002.. 961 988	256 441	281 204	424 343	965 495	263 891	285 886	415 718	X	X	X	X	

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NAICS and NAICS-based code <sup>1</sup>	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate <sup>2</sup> (percent) for column—								
		Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total	Finished products	Work-in-process	Materials, supplies, fuels, etc.									
		A	B	C	D	E	F	G	H	A	B	C	D					
339	Miscellaneous manufacturing—Con.																	
3399	Other miscellaneous manufacturing—Con.																	
33999	All other miscellaneous manufacturing .....	3 767 089	1 724 643	585 366	1 457 081	3 858 158	1 759 139	600 784	1 498 235	1	1	2	1					
	2002..	3 800 558	1 732 535	599 774	1 468 249	3 753 075	1 674 395	596 216	1 482 464	X	X	X	X					
339991	Gasket, packing, and sealing device manufacturing .....	587 683	286 247	104 766	196 670	579 752	281 542	109 303	188 907	2	2	2	3					
	2002..	592 099	286 461	113 408	192 230	584 082	283 615	111 312	189 155	X	X	X	X					
339992	Musical instrument manufacturing .....	471 547	182 467	101 408	187 672	478 612	180 135	105 862	192 615	1	2	2	1					
	2002..	481 669	182 432	108 246	190 991	464 658	172 064	103 229	189 365	X	X	X	X					
339993	Fastener, button, needle, and pin manufacturing .....	142 128	71 664	36 347	34 118	148 718	71 144	39 075	38 499	4	7	4	3					
	2002..	148 982	71 508	39 618	37 856	154 548	70 354	42 765	41 429	X	X	X	X					
339994	Broom, brush, and mop manufacturing .....	326 876	155 103	35 950	135 823	325 823	154 834	36 422	134 567	5	5	4	5					
	2002..	338 976	161 639	36 861	140 476	314 214	150 996	31 685	131 533	X	X	X	X					
339995	Burial casket manufacturing .....	62 051	22 601	16 431	23 019	66 376	28 270	14 712	23 395	5	7	16	8					
	2002..	66 524	26 664	15 836	24 024	84 672	51 412	15 671	17 589	X	X	X	X					
339999	All other miscellaneous manufacturing .....	2 176 805	1 006 561	290 466	879 778	2 258 876	1 043 213	295 410	920 253	1	1	3	2					
	2002..	2 172 308	1 003 831	285 805	882 672	2 150 901	945 954	291 554	913 393	X	X	X	X					

<sup>1</sup>For a comparison of the Annual Survey of Manufactures (ASM) general statistics NAICS-based codes to the 2002 Economic Census NAICS codes, see Appendix F.

<sup>2</sup>Description of relative standard error of estimate is given in Appendix C. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note 1: Previous years' data may differ from that published in the 2002 Economic Census because of changes encountered in subsequent review of the 2003 Annual Survey of Manufactures (ASM).

Note 2: The data in this table are based on the 2003 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The data in this table contain sampling errors and nonsampling errors. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 7. Value of Shipments for Subsectors: 2003 and 2002**

[Thousand dollars. Data based on the 2003 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

NAICS code	Subsector	Value of shipments			Total miscellaneous receipts			Interplant transfers	Relative standard error of estimate <sup>2</sup> (percent) for column—
		Total	Products <sup>1</sup>	Total miscellaneous receipts	Value of resales	Contract receipts	Other miscellaneous receipts		
		A	C	D	E	F	G		
<b>31-33</b>	<b>Manufacturing</b>	<b>3 979 917 101</b> <b>3 920 631 826</b>	<b>3 792 819 223</b> <b>3 726 501 142</b>	<b>187 097 878</b> <b>194 130 684</b>	<b>149 425 113</b> <b>154 804 492</b>	<b>15 375 953</b> <b>15 008 122</b>	<b>22 296 813</b> <b>24 318 070</b>	<b>298 330 812</b> <b>278 621 367</b>	<b>1</b> <b>X</b>
311	Food manufacturing	482 815 049 460 019 582	461 034 613 437 922 184	21 780 436 22 097 398	20 217 498 20 341 905	778 727 852 904	784 211 902 589	27 981 909 26 381 084	1 X
312	Beverage and tobacco product manufacturing	106 872 812 105 691 110	104 228 630 101 725 313	2 644 181 3 965 797	2 280 662 3 600 561	283 001 245 366	80 518 119 870	1 223 060 2 310 817	1 X
313	Textile mills	42 556 725 45 548 983	41 703 327 44 519 070	853 397 1 029 913	684 335 860 901	119 535 117 635	49 527 51 377	11 118 450 11 429 214	1 X
314	Textile product mills	30 827 381 31 805 579	28 715 397 29 697 839	2 111 984 2 107 740	1 821 276 1 828 909	260 893 241 305	29 815 37 526	4 623 548 4 558 005	1 X
315	Apparel manufacturing	40 624 280 44 515 059	32 917 225 37 638 687	7 707 055 6 876 372	7 467 787 6 620 317	209 600 214 815	29 667 41 240	1 616 771 1 394 006	1 X
316	Leather and allied product manufacturing	6 003 320 6 299 106	5 434 897 5 650 938	568 424 648 168	545 337 618 442	9 329 10 773	13 757 18 953	624 266 D	2 X
321	Wood product manufacturing	91 240 225 88 985 198	86 554 537 83 998 492	4 685 688 4 986 706	3 300 027 3 533 881	284 163 284 193	1 101 498 1 168 632	4 297 467 3 353 842	1 X
322	Paper manufacturing	149 270 288 153 655 337	144 801 449 149 199 455	4 468 839 4 455 882	3 456 364 3 471 662	327 220 241 500	685 255 742 720	13 509 545 13 050 045	1 X
323	Printing and related support activities	92 191 998 95 387 664	87 061 239 89 523 778	5 130 759 5 863 886	3 573 613 3 851 657	— —	1 557 146 2 012 229	938 606 D	1 X
324	Petroleum and coal products manufacturing	237 010 657 215 190 289	232 481 858 210 073 864	4 528 799 5 116 425	4 221 720 4 742 356	119 831 103 138	187 248 270 931	6 909 520 8 774 388	1 X
325	Chemical manufacturing	477 360 035 460 451 102	448 003 376 434 565 137	29 356 659 25 885 965	20 850 857 19 279 828	5 600 538 4 557 196	2 905 264 2 048 941	42 737 922 34 264 693	1 X
326	Plastics and rubber products manufacturing	176 344 190 173 900 666	169 495 935 167 048 265	6 848 255 6 852 401	5 967 175 6 025 083	408 718 278 158	472 362 549 160	6 405 636 5 602 641	1 X
327	Nonmetallic mineral product manufacturing	96 349 223 95 265 486	91 970 990 90 994 840	4 378 233 4 270 646	3 636 633 3 643 307	285 454 250 622	456 146 376 717	3 471 434 2 998 041	1 X
331	Primary metal manufacturing	136 838 586 139 449 499	132 960 827 134 866 983	3 877 759 4 582 516	2 055 102 2 250 078	893 224 1 554 959	929 432 777 479	16 598 012 13 930 184	1 X
332	Fabricated metal product manufacturing	244 662 353 246 734 367	229 680 581 231 460 382	14 981 772 15 273 985	9 877 199 9 755 660	2 290 603 2 210 341	2 813 969 3 307 984	9 008 282 8 127 989	1 X
333	Machinery manufacturing	253 673 036 253 135 046	235 006 513 232 329 844	18 666 523 20 805 202	15 139 810 16 979 671	915 965 926 228	2 610 748 2 899 303	10 985 762 8 949 330	1 X
334	Computer and electronic product manufacturing	353 665 450 358 257 888	334 886 315 336 923 346	18 779 135 21 334 542	15 066 372 16 473 439	591 581 735 695	3 121 182 4 125 408	14 555 505 13 574 787	1 X
335	Electrical equipment, appliance, and component manufacturing	101 770 560 104 472 373	96 229 372 98 074 839	5 541 188 6 397 534	4 861 737 5 672 454	158 318 191 193	521 133 533 887	3 448 160 3 590 305	1 X
336	Transportation equipment manufacturing	653 489 430 637 675 482	636 772 831 620 983 422	16 716 598 16 692 060	12 663 369 12 453 885	1 080 350 1 011 160	2 972 878 3 227 015	113 039 444 111 645 764	1 X
337	Furniture and related product manufacturing	76 620 837 77 242 357	72 099 694 72 582 626	4 521 143 4 659 731	3 984 460 4 146 212	219 954 249 282	316 730 264 237	1 695 675 1 053 498	1 X
339	Miscellaneous manufacturing	129 730 667 126 949 653	120 779 616 116 721 838	8 951 052 10 227 815	7 753 778 8 654 284	538 947 731 659	658 327 841 872	3 541 839 2 211 943	1 X

<sup>1</sup>Data represent the sum of primary and secondary product shipments.

<sup>2</sup>Description of relative standard error of estimate is given in Appendix C. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note 1: Previous years' data may differ from that published in the 2002 Economic Census because of changes encountered in subsequent review of the 2003 Annual Survey of Manufactures (ASM).

Note 2: The data in this table are based on the 2003 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The data in this table contain sampling errors and nonsampling errors. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

# Appendix A.

## Explanation of Terms

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### **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.

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## **Specific materials consumed**

In addition to the total cost of materials, which every establishment was required to report, information also was collected for most manufacturing industries on the consumption of major materials used in manufacturing. The inquiries were restricted to those materials that were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. If less than \$25,000 of a listed material was consumed by an establishment, the cost data could be reported in the "Cost of all other materials" Census material code 00970099.

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

## **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 that included considerable duplication. Since then, these data have been published for all industries at the U.S. level and beginning in 1964, for all geographic levels.

## **NUMBER OF EMPLOYEES**

This item includes all full-time and part-time employees on the payrolls of operating manufacturing establishments during any part of the pay period that included the 12th of the months specified on the report form. Included are employees on paid sick leave, paid holidays, and paid vacations; not included are proprietors and partners of unincorporated businesses.

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

The "all employees" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average for the payroll periods including the 12th of March, May, August, and November.

## **Production Workers**

The "production workers" number includes workers (up through the line-supervisor level) engaged in fabricating, processing, assembling, inspecting, receiving, storing, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial and guard services, product

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development, auxiliary production for plant's own use (e.g., power plant), recordkeeping, and other services closely associated with these production operations at the establishment covered by the report. Employees above the working-supervisor level are excluded from this item.

### **All Other Employees**

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

### **TOTAL FRINGE BENEFITS**

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

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

### **COMPANY**

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

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

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

### **Establishment**

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



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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).

## **PRODUCT CODES AND CLASSES OF PRODUCTS**

NAICS United States industries are identified by a six-digit code. The longer code accommodates the large number of sectors and allows more flexibility in designing subsectors. Each product or service is assigned a ten-digit code. The product coding structure represents an extension by the Census Bureau of the six-digit industry classifications of the manufacturing and mining sectors. The classification system operates so that the industrial coverage is progressively narrower with the successive addition of digits.

As in previous censuses, data were collected for most industries on the quantity and value of individual products shipped. Since the 1997 census programs, information is collected on the output of almost 10,000 individual product items.

In the manufacturing sector for 2002, there are 21 subsectors (three-digit NAICS), 86 industry groups (four-digit NAICS), 184 NAICS industries (five-digit NAICS) that are comparable with Canadian and Mexican classification, and 473 U.S. industries (six-digit NAICS). Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they originate. There are 1,450 product classes (seven-digit codes), 5,674 census products, and an additional 3,746 ten-digit product codes. The ten-digit products are considered the primary products of the industry with the same first six digits.

The list of products for which separate information was collected was prepared after consultation with industry and government representatives.

Comparability with previous figures was given considerable weight in the selection of product categories, so that comparable 1992 information is presented for most products.

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

Shipments include both commercial shipments and transfers of products to other plants of the same company. For industries in which a considerable portion of the total shipments is transferred to other plants of the same company, separate information on interplant transfers also was collected. Moreover, for products that are used to a large degree within the same establishment as

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materials or components in the fabrication of other products, total production and often consumption of the item within the plant (quantity produced and consumed) was collected. Typically, the information on production also was collected for products for which there are significant differences between total production and shipments in a given year because of wide fluctuations in finished goods inventories. Other measures of output of products with long production cycles were used as appropriate and feasible.

### **PRODUCTION-WORKER HOURS**

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

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

Data on the cost of purchased electric energy were collected on all census forms. However, data on the quantity of purchased electric energy were collected only on the Annual Survey of Manufactures (ASM) form. In addition, information is collected on the quantity of electric energy generated by the establishment and the quantity of electric energy sold or transferred to other plants of the same company.

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

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

These data include expenditures for:

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

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

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

### **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

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addition of value added by merchandising operations (i.e., the difference between the sales value and the cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process between the beginning- and end-of-year inventories.

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

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

### **TOTAL VALUE OF SHIPMENTS**

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

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

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

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

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

1. Primary product value of shipments.
2. Secondary product value of shipments.
3. Total miscellaneous receipts.

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

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

The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries includes large amounts of duplication, since the products of some industries are used as materials by others. This duplication results, in part, from the addition of related industries representing successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the food group and the addition of pulp mills to paper mills in the paper and allied products group of industries.

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

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

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

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

### **Specialization and coverage ratio**

An establishment is classified in a particular industry, if its shipments of primary products of that industry exceed in value its shipments of the products of any other single industry.

An establishment's shipments include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), and receipts for miscellaneous activities (merchandising, contract work, resales, etc.).

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

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

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

# Appendix B.

## NAICS Codes, Titles, and Descriptions

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### **311 FOOD MANUFACTURING**

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

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

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

### **3111 ANIMAL FOOD MANUFACTURING**

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

### **31111 ANIMAL FOOD MANUFACTURING**

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

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

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

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

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

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

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

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311211 Flour Milling;
2. 311212 Rice Milling; and
3. 311213 Malt Manufacturing.

### **311211 Flour Milling**

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

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

### **311212 Rice Milling**

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

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

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

### **311213 Malt Manufacturing**

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

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

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

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

### **311221 WET CORN MILLING**

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

### **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.

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## **31122N SOYBEAN AND OTHER OILSEED PROCESSING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311222 Soybean Processing and
2. 311223 Other Oilseed Processing.

### **311222 Soybean Processing**

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

### **311223 Other Oilseed Processing**

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

## **31123 BREAKFAST CEREAL MANUFACTURING**

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

### **311230 BREAKFAST CEREAL MANUFACTURING**

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

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

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

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

### **31131 SUGAR MANUFACTURING**

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

#### **311313 BEET SUGAR MANUFACTURING**

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

#### **31131N SUGAR CANE MILLS AND REFINING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311311 Sugarcane Mills and
2. 311312 Cane Sugar Refining.

##### **311311 Sugarcane Mills**

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

##### **311312 Cane Sugar Refining**

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

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### **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.

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

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

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

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

### **31134 NONCHOCOLATE CONFECTIONERY MANUFACTURING**

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

### **311340 NONCHOCOLATE CONFECTIONERY MANUFACTURING**

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

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

This industry group comprises establishments primarily engaged in the following:

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

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

### **31141 FROZEN FOOD MANUFACTURING**

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

### **31141M FROZEN FOOD MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311411 Frozen Fruit, Juice, and Vegetable Manufacturing and
2. 311412 Frozen Specialty Food Manufacturing.



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### **311411 Frozen Fruit, Juice, and Vegetable Manufacturing**

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

### **311412 Frozen Specialty Food Manufacturing**

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

### **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.

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311421 Fruit and Vegetable Canning;
2. 311422 Specialty Canning; and
3. 311423 Dried and Dehydrated Food Manufacturing.

### **311421 Fruit and Vegetable Canning**

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

### **311422 Specialty Canning**

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

### **311423 Dried and Dehydrated Food Manufacturing**

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

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

### **3115 DAIRY PRODUCT MANUFACTURING**

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

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

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

1. Manufacturing dairy products (except frozen) from raw milk and/or processed milk products;

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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.

### **311513 CHEESE MANUFACTURING**

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

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

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

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

### **31151N FLUID MILK AND BUTTER MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311511 Fluid Milk Manufacturing and
2. 311512 Creamery Butter Manufacturing.

#### **311511 Fluid Milk Manufacturing**

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

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

#### **311512 Creamery Butter Manufacturing**

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

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

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

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

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

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

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

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

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

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### **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.

### **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.

### **31161N ANIMAL (EXCEPT POULTRY) SLAUGHTERING AND PROCESSING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311611 Animal (except Poultry) Slaughtering;
2. 311612 Meat Processed from Carcasses; and
3. 311613 Rendering and Meat Byproduct Processing.

#### **311611 Animal (except Poultry) Slaughtering**

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

#### **311612 Meat Processed from Carcasses**

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

#### **311613 Rendering and Meat Byproduct Processing**

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

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

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

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

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

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311711 Seafood Canning; and
2. 311712 Fresh and Frozen Seafood Processing.

#### **311711 Seafood Canning**

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

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

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

#### **311712 Fresh and Frozen Seafood Processing**

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

1. Eviscerating fresh fish by removing heads, fins, scales, bones, and entrails;
2. Shucking and packing fresh shellfish;
3. Manufacturing frozen seafood; and
4. Processing fresh and frozen marine fats and oils.

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

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

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1. 311811 Retail Bakeries;
  2. 311812 Commercial Bakeries; and
  3. 311813 Frozen Cakes, Pies, and Other Pastries Manufacturing.

### **311811 Retail Bakeries**

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

### **311812 Commercial Bakeries**

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

### **311813 Frozen Cakes, Pies, and Other Pastries Manufacturing**

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

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311821 Cookie and Cracker Manufacturing;
2. 311822 Flour Mixes and Dough Manufacturing from Purchased Flour; and
3. 311823 Dry Pasta Manufacturing.

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

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

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

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

### **311823 DRY PASTA MANUFACTURING**

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

### **31183 TORTILLA MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing tortillas.

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### **311830 TORTILLA MANUFACTURING**

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

### **3119 OTHER FOOD MANUFACTURING**

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

### **31191 SNACK FOOD MANUFACTURING**

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

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

### **31191M SNACK FOOD MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311911 Roasted Nuts and Peanut Butter Manufacturing and
2. 311919 Other Snack Food Manufacturing.

### **311911 Roasted Nuts and Peanut Butter Manufacturing**

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

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

### **311919 Other Snack Food Manufacturing**

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

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

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

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:

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

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

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

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

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311941 Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing and
2. 311942 Spice and Extract Manufacturing.

### **311941 Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing**

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

### **311942 Spice and Extract Manufacturing**

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

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

### **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

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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.

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 311991 Perishable Prepared Food Manufacturing and
2. 311999 All Other Miscellaneous Food Manufacturing.

#### **311991 Perishable Prepared Food Manufacturing**

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

#### **311999 All Other Miscellaneous Food Manufacturing**

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

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

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

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

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

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

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

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

#### **3121 BEVERAGE MANUFACTURING**

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

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

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



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1. Manufacturing soft drinks;
  2. Manufacturing ice; and
  3. Purifying and bottling water.

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 312111 Soft Drink Manufacturing;
2. 312112 Bottled Water Manufacturing; and
3. 312113 Ice Manufacturing.

#### **312111 Soft Drink Manufacturing**

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

#### **312112 Bottled Water Manufacturing**

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

#### **312113 Ice Manufacturing**

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

### **31212 BREWERIES**

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

#### **312120 BREWERIES**

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

#### **31213 WINERIES**

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

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

#### **312130 WINERIES**

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

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

#### **31214 DISTILLERIES**

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

1. Distilling potable liquors (except brandies);
2. Distilling and blending liquors; and

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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.

### **3122 TOBACCO MANUFACTURING**

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

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

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

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 312221 Cigarette Manufacturing and
2. 312229 Other Tobacco Product Manufacturing.

#### **312221 Cigarette Manufacturing**

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

#### **312229 Other Tobacco Product Manufacturing**

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

### **313 TEXTILE MILLS**

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

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

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

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

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

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 313111 Yarn Spinning Mills;
2. 313112 Yarn Texturizing, Throwing, and Twisting Mills; and
3. 313113 Thread Mills.

#### **313111 Yarn Spinning Mills**

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

#### **313112 Yarn Texturizing, Throwing, and Twisting Mills**

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

#### **313113 Thread Mills**

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

### **3132 FABRIC MILLS**

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

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

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### **31321 BROADWOVEN FABRIC MILLS**

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

### **313210 BROADWOVEN FABRIC MILLS**

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 313221 Narrow Fabric Mills and
2. 313222 Schiffli Machine Embroidery.

### **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.

### **313222 Schiffli Machine Embroidery**

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

### **31323 NONWOVEN FABRIC MILLS**

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

### **313230 NONWOVEN FABRIC MILLS**

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

### **31324 KNIT FABRIC MILLS**

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

1. knitting weft (i.e., circular) and warp (i.e., flat) fabric

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

### **31324M KNIT FABRIC MILLS**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 313241 Weft Knit Fabric Mills and
2. 313249 Other Knit Fabric and Lace Mills.

#### **313241 Weft Knit Fabric Mills**

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

#### **313249 Other Knit Fabric and Lace Mills**

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

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

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

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

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

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

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

This industry comprises:

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 313311 Broadwoven Fabric Finishing Mills and
2. 313312 Textile and Fabric Finishing (Except Broadwoven Fabric) Mills.

#### **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.

#### **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, calendaring, mercerizing and napping; as well as cleaning, scouring, and the preparation of natural fibers and raw stock.

### **31332 FABRIC COATING MILLS**

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

#### **313320 FABRIC COATING MILLS**

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

### **314 TEXTILE PRODUCT MILLS**

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

#### **3141 TEXTILE FURNISHINGS MILLS**

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

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

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

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

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.

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

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 314121 Curtain and Drapery Mills and
2. 314129 Other Household Textile Product Mills.

#### **314121 Curtain and Drapery Mills**

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

#### **314129 Other Household Textile Product Mills**

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

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 314911 Textile Bag Mills and
2. 314912 Canvas and Related Product Mills.

#### **314911 Textile Bag Mills**

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

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### **314912 Canvas and Related Product Mills**

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

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

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

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

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

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

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

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

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

## **315 APPAREL MANUFACTURING**

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

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

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

### **3151 APPAREL KNITTING MILLS**

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

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

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



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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 315111 Sheer Hosiery Mills and
2. 315119 Other Hosiery and Sock Mills.

#### **315111 Sheer Hosiery Mills**

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

#### **315119 Other Hosiery and Sock Mills**

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 315191 Outerwear Knitting Mills and
2. 315192 Underwear and Nightwear Knitting Mills.

#### **315191 Outerwear Knitting Mills**

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

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

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

#### **315192 Underwear and Nightwear Knitting Mills**

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

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

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

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

This industry group comprises establishments primarily engaged in manufacturing cut and sew apparel from woven fabric or purchased knit fabric. Included in this industry group is a diverse range of establishments manufacturing full lines of ready-to-wear apparel and custom apparel:

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apparel contractors, performing cutting or sewing operations on materials owned by others; jobbers performing entrepreneurial functions involved in apparel manufacture; and tailors, manufacturing custom garments for individual clients. Establishments weaving or knitting fabric, without manufacturing apparel, are classified in Subsector 313, Textile Mills.

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 315211 Men's and Boys' Cut and Sew Apparel Contractors and
2. 315212 Women's, Girls', and Infants' Cut and Sew Apparel Contractors.

### **315211 Men's and Boys' Cut and Sew Apparel Contractors**

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

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

### **315212 Women's, Girls', and Infants' Cut and Sew Apparel Contractors**

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

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

### **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.

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 315221 Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing;
2. 315222 Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing;
3. 315223 Men's and Boys' Cut and Sew Shirt (except Work Shirt) Manufacturing;
4. 315224 Men's and Boys' Cut and Sew Trouser, Slack, and Jean Manufacturing;
5. 315225 Men's and Boys' Cut and Sew Work Clothing Manufacturing; and
6. 315228 Men's and Boys' Cut and Sew Other Outerwear Manufacturing.

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### **315221 Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing**

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

### **315222 Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing**

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

### **315223 Men's and Boys' Cut and Sew Shirt (except Work Shirt) Manufacturing**

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

### **315224 Men's and Boys' Cut and Sew Trouser, Slack, and Jean Manufacturing**

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

### **315225 Men's and Boys' Cut and Sew Work Clothing Manufacturing**

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

### **315228 Men's and Boys' Cut and Sew Other Outerwear Manufacturing**

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

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### **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.

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 315231 Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing;
2. 315232 Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing;
3. 315233 Women's and Girls' Cut and Sew Dress Manufacturing;
4. 315234 Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing; and
5. 315239 Women's and Girls' Cut and Sew Other Outerwear Manufacturing.

#### **315231 Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing**

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

#### **315232 Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing**

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

#### **315233 Women's and Girls' Cut and Sew Dress Manufacturing**

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

#### **315234 Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing**

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

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### **315239 Women's and Girls' Cut and Sew Other Outerwear Manufacturing**

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 315291 Infants' Cut and Sew Apparel Manufacturing;
2. 315292 Fur and Leather Apparel Manufacturing; and
3. 315299 All Other Cut and Sew Apparel Manufacturing.

### **315291 Infants' Cut and Sew Apparel Manufacturing**

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

### **315292 Fur and Leather Apparel Manufacturing**

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

### **315299 All Other Cut and Sew Apparel Manufacturing**

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

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

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

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## **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.

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 315991 Hat, Cap, and Millinery Manufacturing;
2. 315992 Glove and Mitten Manufacturing;
3. 315993 Men's and Boys' Neckwear Manufacturing; and
4. 315999 Other Apparel Accessories and Other Apparel Manufacturing.

#### **315991 Hat, Cap, and Millinery Manufacturing**

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

#### **315992 Glove and Mitten Manufacturing**

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

#### **315993 Men's and Boys' Neckwear Manufacturing**

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

#### **315999 Other Apparel Accessories and Other Apparel Manufacturing**

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

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

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

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

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

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

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

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

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

### **3162 FOOTWEAR MANUFACTURING**

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

### **31621 FOOTWEAR MANUFACTURING**

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

### **31621M FOOTWEAR MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 316211 Rubber and Plastics Footwear Manufacturing;
2. 316212 House Slipper Manufacturing;
3. 316213 Men’s Footwear (except Athletic) Manufacturing



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4. 316214 Women's Footwear (except Athletic) Manufacturing; and
  5. 316219 Other Footwear Manufacturing.

### **316211 Rubber and Plastics Footwear Manufacturing**

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

### **316212 House Slipper Manufacturing**

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

### **316213 Men's Footwear (except Athletic) Manufacturing**

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

### **316214 Women's Footwear (except Athletic) Manufacturing**

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

### **316219 Other Footwear Manufacturing**

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

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

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

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

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

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 316991 Luggage Manufacturing;
2. 316992 Women's Handbag and Purse Manufacturing;
3. 316993 Personal Leather Good (except Women's Handbag and Purse) Manufacturing; and
4. 316999 All Other Leather Good Manufacturing.

### **316991 Luggage Manufacturing**

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



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### **316992 Women's Handbag and Purse Manufacturing**

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

### **316993 Personal Leather Good (except Women's Handbag and Purse) Manufacturing**

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

### **316999 All Other Leather Good Manufacturing**

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

## **321 WOOD PRODUCT MANUFACTURING**

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

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

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

#### **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.

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

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 321113 Sawmills and
2. 321114 Wood Preservation.

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### **321113 Sawmills**

This U.S. industry comprises establishments primarily engaged in sawing dimension lumber, boards, beams, timbers, poles, ties, shingles, shakes, siding, and wood chips from logs or bolts. Sawmills may plane the rough lumber that they make with a planing machine to achieve smoothness and uniformity of size.

### **321114 Wood Preservation**

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

1. treating wood sawed, planed, or shaped in other establishments with creosote or other preservatives, such as chromated copper arsenate, to prevent decay and to protect against fire and insects and/or
2. sawing round wood poles, pilings, and posts and treating them with preservatives.

### **3212 VENEER, PLYWOOD, AND ENGINEERED WOOD PRODUCT MANUFACTURING**

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

1. Manufacturing veneer and/or plywood;
2. Manufacturing engineered wood members; and
3. Manufacturing reconstituted wood products.

This industry includes manufacturing plywood from veneer made in the same establishment or from veneer made in other establishments, and manufacturing plywood faced with nonwood materials, such as plastics or metal.

### **32121 VENEER, PLYWOOD, AND ENGINEERED WOOD PRODUCT MANUFACTURING**

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

1. manufacturing veneer and/or plywood;
2. manufacturing engineered wood members; and
3. manufacturing reconstituted wood products.

This industry includes manufacturing plywood from veneer made in the same establishment or from veneer made in other establishments, and manufacturing plywood faced with nonwood materials, such as plastics or metal.

### **321219 RECONSTITUTED WOOD PRODUCT MANUFACTURING**

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

### **32121N VENEER AND PLYWOOD MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 321211 Hardwood Veneer and Plywood Manufacturing and
2. 321212 Softwood Veneer and Plywood Manufacturing.

### **321211 Hardwood Veneer and Plywood Manufacturing**

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

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### **321212 Softwood Veneer and Plywood Manufacturing**

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

### **32121P ENGINEERED WOOD PRODUCT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 321213 Engineered Wood Member (except Truss) Manufacturing and
2. 321214 Truss Manufacturing.

### **321213 Engineered Wood Member (except Truss) Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated or laminated wood arches and/or other fabricated or laminated wood structural members.

### **321214 Truss Manufacturing**

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

### **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.

### **32191M MILLWORK**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 321911 Wood Window and Door Manufacturing
2. 321912 Cut Stock, Resawing Lumber, and Planing; and
3. 321918 Other Millwork (including Flooring).

### **321911 Wood Window and Door Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing window and door units, sash, window and door frames, and doors from wood or wood clad with metal or plastics.

### **321912 Cut Stock, Resawing Lumber, and Planing**

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

1. manufacturing dimension lumber from purchased lumber;
2. manufacturing dimension stock (i.e., shapes) or cut stock;
3. resawing the output of sawmills; and
4. planing purchased lumber.

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These establishments generally use woodworking machinery, such as jointers, planers, lathes, and routers to shape wood.

### **321918 Other Millwork (including Flooring)**

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

### **32192 WOOD CONTAINER AND PALLET MANUFACTURING**

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

### **321920 WOOD CONTAINER AND PALLET MANUFACTURING**

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

### **32199 ALL OTHER WOOD PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing wood products (except establishments operating sawmills and wood preservation facilities; and establishments manufacturing veneer, plywood, engineered wood products, millwork, wood containers, or pallets).

### **321991 MANUFACTURED HOME (MOBILE HOME) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in making manufactured homes (i.e., mobile homes) and nonresidential mobile buildings. Manufactured homes are designed to accept permanent water, sewer, and utility connections and although equipped with wheels, they are not intended for regular highway movement.

### **321992 PREFABRICATED WOOD BUILDING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing prefabricated wood buildings and wood sections and panels for prefabricated wood buildings.

### **321999 ALL OTHER MISCELLANEOUS WOOD PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood products (except establishments operating sawmills and preservation facilities; establishments manufacturing veneer, engineered wood products, millwork, wood containers, pallets, and wood container parts; and establishments making manufactured homes (i.e., mobile homes) and prefabricated buildings and components).

### **322 PAPER MANUFACTURING**

Industries in the Paper Manufacturing subsector make pulp, paper, or converted paper products. The manufacturing of these products is grouped together because they constitute a series of vertically connected processes. More than one is often carried out in a single establishment. There are essentially three activities. The manufacturing of pulp involves separating the cellulose fibers from other impurities in wood or used paper. The manufacturing of paper involves matting these fibers into a sheet. Converted paper products are made from paper and other materials by various cutting and shaping techniques and includes coating and laminating activities.

The Paper Manufacturing subsector is subdivided into two industry groups, the first for the manufacturing of pulp and paper and the second for the manufacturing of converted paper products. Paper making is treated as the core activity of the subsector. Therefore, any establishment that

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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, lintens, 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, lintens, scrap paper, and straw.

##### **32212 PAPER MILLS**

This industry comprises establishments primarily engaged in manufacturing paper from pulp. These establishments may manufacture or purchase pulp. In addition, the establishments may convert the paper they make. The activity of making paper classifies an establishment into this industry regardless of the output.

##### **32212M PAPER AND NEWSPRINT MILLS**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 322121 Paper (except Newsprint) Mills and
2. 322122 Newsprint Mills.

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### **322121 Paper (except Newsprint) Mills**

This U.S. industry comprises establishments primarily engaged in manufacturing paper (except newsprint and uncoated groundwood paper) from pulp. These establishments may manufacture or purchase pulp. In addition, the establishments may also convert the paper they make.

### **322122 Newsprint Mills**

This U.S. industry comprises establishments primarily engaged in manufacturing newsprint and uncoated groundwood paper from pulp. These establishments may manufacture or purchase pulp. In addition, the establishments may also convert the paper they make.

### **32213 PAPERBOARD MILLS**

This industry comprises establishments primarily engaged in manufacturing paperboard from pulp. These establishments may manufacture or purchase pulp. In addition, the establishments may also convert the paperboard they make.

### **322130 PAPERBOARD MILLS**

This U.S. industry comprises establishments primarily engaged in manufacturing paperboard from pulp. These establishments may manufacture or purchase pulp. In addition, the establishments may also convert the paperboard they make.

### **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.

### **32221M PAPERBOARD CONTAINER MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 322211 Corrugated and Solid Fiber Box Manufacturing;
2. 322212 Folding Paperboard Box Manufacturing;
3. 322213 Setup Paperboard Box Manufacturing;
4. 322214 Fiber Can, Tube, Drum, and Similar Products Manufacturing; and
5. 322215 Nonfolding Sanitary Food Container Manufacturing.

### **322211 Corrugated and Solid Fiber Box Manufacturing**

This U.S. industry comprises establishments primarily engaged in laminating purchased paper or paperboard into corrugated or solid fiber boxes and related products, such as pads, partitions, pallets, and corrugated paper without manufacturing paperboard. These boxes are generally used for shipping.

### **322212 Folding Paperboard Box Manufacturing**

This U.S. industry comprises establishments primarily engaged in converting paperboard (except corrugated) into folding paperboard boxes without manufacturing paper and paperboard.

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### **322213 Setup Paperboard Box Manufacturing**

This U.S. industry comprises establishments primarily engaged in converting paperboard into setup paperboard boxes (i.e., rigid-sided boxes not shipped flat) without manufacturing paperboard.

### **322214 Fiber Can, Tube, Drum, and Similar Products Manufacturing**

This U.S. industry comprises establishments primarily engaged in converting paperboard into fiber cans, tubes, drums, and similar products without manufacturing paperboard.

### **322215 Nonfolding Sanitary Food Container Manufacturing**

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

### **32222 PAPER BAG AND COATED AND TREATED PAPER MANUFACTURING**

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

1. cutting and coating paper and paperboard;
2. cutting and laminating paper and paperboard and other flexible materials (except plastics film to plastics film);
3. manufacturing bags or multiwall bags or sacks of paper, metal foil, coated paper, or laminates or coated combinations of paper and foil with plastics film;
4. manufacturing laminated aluminum and other converted metal foils from purchased foils; and
5. surface coating paper or paperboard.

### **32222N COATED AND LAMINATED PAPER AND PACKAGING MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 322221 Coated and Laminated Packaging Paper and Plastics Film Manufacturing and
2. 322222 Coated and Laminated Paper Manufacturing.

### **322221 Coated and Laminated Packaging Paper and Plastics Film Manufacturing**

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

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.

### **322222 Coated and Laminated Paper Manufacturing**

This U.S. industry comprises establishments primarily engaged in performing one or more of the following activities associated with making products designed for purposes other than packaging:

1. cutting and coating paper;
2. cutting and laminating paper and other flexible materials (except plastics film to plastics film); and
3. laminating aluminum and other metal foils for nonpackaging uses from purchased foils.

The products made in this industry are made from purchased sheet materials and may be printed in the same establishment.



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## **32222P COATED, UNCOATED, AND MULTIWALL BAG AND PACKAGING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 322223 Plastics, Foil, and Coated Paper Bag Manufacturing;
2. 322224 Uncoated Paper and Multiwall Bag Manufacturing;
3. 322225 Laminated Aluminum Foil Manufacturing for Flexible Packaging Uses; and
4. 322226 Surface-Coated Paperboard Manufacturing.

### **322223 Plastics, Foil, and Coated Paper Bag Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing bags of coated paper, of metal foil, or of laminated or coated combinations of plastics, foil, and paper, whether or not printed.

### **322224 Uncoated Paper and Multiwall Bag Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing uncoated paper bags or multiwall bags and sacks.

### **322225 Laminated Aluminum Foil Manufacturing for Flexible Packaging Uses**

This U.S. industry comprises establishments primarily engaged in laminating aluminum and other metal foil into products with flexible packaging uses or gift wrap and other packaging wrap applications.

### **322226 Surface-Coated Paperboard Manufacturing**

This U.S. industry comprises establishments primarily engaged in laminating, lining, or surface coating purchased paperboard to make other paperboard products.

## **32223 STATIONERY PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in converting paper or paperboard into products used for writing, filing, art work, and similar applications.

### **32223M STATIONERY PRODUCT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 322231 Die-Cut Paper and Paperboard Office Supplies Manufacturing;
2. 322232 Envelope Manufacturing; and
3. 322233 Stationery, Tablet, and Related Product Manufacturing.

### **322231 Die-Cut Paper and Paperboard Office Supplies Manufacturing**

This U.S. industry comprises establishments primarily engaged in converting paper rollstock or paperboard into die-cut paper or paperboard office supplies. For the purpose of this industry, office supplies are defined as office products, such as filing folders, index cards, rolls for adding machines, file separators and dividers, tabulating cards, and other paper and paperboard office supplies.

### **322232 Envelope Manufacturing**

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



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### **322233 Stationery, Tablet, and Related Product Manufacturing**

This U.S. industry comprises establishments primarily engaged in converting paper and paperboard into products used for writing and similar applications (e.g., looseleaf fillers, notebooks, pads, stationery, and tablets).

### **32229 OTHER CONVERTED PAPER PRODUCT MANUFACTURING**

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

1. converting paper and paperboard into products (except containers, bags, coated and treated paper and paperboard, and stationery products), or
2. converting pulp into pulp products, such as disposable diapers, or molded pulp egg cartons, food trays, and dishes.

Processes used include laminating or lining purchased paper or paperboard.

### **322291 SANITARY PAPER PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting purchased sanitary paper stock or wadding into sanitary paper products, such as facial tissues and handkerchiefs, table napkins, toilet paper, towels, disposable diapers, sanitary napkins, and tampons.

### **322299 ALL OTHER CONVERTED PAPER PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting paper or paperboard into products (except containers, bags, coated and treated paper, stationery products, and sanitary paper products) or converting pulp into pulp products, such as egg cartons, food trays, and other food containers from molded pulp.

### **323 PRINTING AND RELATED SUPPORT ACTIVITIES**

Industries in the Printing and Related Support Activities subsector print products, such as newspapers, books, labels, business cards, stationery, business forms, and other materials, and perform support activities, such as data imaging, platemaking services, and bookbinding. The support activities included here are an integral part of the printing industry, and a product (a printing plate, a bound book, or a computer disk or file) that is an integral part of the printing industry is almost always provided by these operations.

Processes used in printing include a variety of methods used to transfer an image from a plate, screen, film, or computer file to some medium, such as paper, plastics, metal, textile articles, or wood. The most prominent of these methods is to transfer the image from a plate or screen to the medium (lithographic, gravure, screen, and flexographic printing). A rapidly growing new technology uses a computer file to directly “drive” the printing mechanism to create the image and new electrostatic and other types of equipment (digital or nonimpact printing).

In contrast to many other classification systems that locate publishing of printed materials in manufacturing, NAICS classifies the publishing of printed products in Subsector 511, Publishing Industries (except Internet). Though printing and publishing are often carried out by the same enterprise (a newspaper, for example), it is less and less the case that these distinct activities are carried out in the same establishment. When publishing and printing are done in the same establishment, the establishment is classified in Sector 51, Information, in the appropriate NAICS industry even if the receipts for printing exceed those for publishing.

This subsector includes printing on clothing because the production process for that activity is printing, not clothing manufacturing. For instance, the printing of T-shirts is included in this subsector. In contrast, printing on fabric (or grey goods) is not included. This activity is part of the process of finishing the fabric and is included in the NAICS Textile Mills subsector in Industry 31331, Textile and Fabric Finishing Mills.

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## **3231 PRINTING AND RELATED SUPPORT ACTIVITIES**

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

1. Printing on apparel and textile products, paper, metal, glass, plastics, and other materials, except fabric (grey goods) and/or
2. Performing prepress (e.g., platemaking, typesetting) and postpress services (e.g., book binding) in support of printing activities.

### **32311 PRINTING**

This industry comprises establishments primarily engaged in printing on apparel and textile products, paper, metal, glass, plastics, and other materials, except fabric (grey goods). The printing processes employed include, but are not limited to, lithographic, gravure, screen, flexographic, digital, and letterpress. Establishments in this industry do not manufacture the stock that they print but may perform postprinting activities, such as folding, cutting, or laminating the materials they print, and mailing.

### **32311M PRINTING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 323110 Commercial Lithographic Printing;
2. 323111 Commercial Gravure Printing;
3. 323112 Commercial Flexographic Printing;
4. 323113 Commercial Screen Printing;
5. 323114 Quick Printing;
6. 323115 Digital Printing;
7. 323116 Manifold Business Forms Printing;
8. 323117 Books Printing;
9. 323118 Blankbook, Looseleaf Binders, and Devices Manufacturing; and
10. 323119 Other Commercial Printing.

### **323110 Commercial Lithographic Printing**

This U.S. industry comprises establishments primarily engaged in lithographic (i.e., offset) printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in lithographic printing on purchased stock materials, such as stationery, letterhead, invitations, labels, and similar items, on a job order basis.

### **323111 Commercial Gravure Printing**

This U.S. industry comprises establishments primarily engaged in gravure printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in gravure printing on purchased stock materials, such as stationery, letterhead, invitations, labels, and similar items, on a job order basis.

### **323112 Commercial Flexographic Printing**

This U.S. industry comprises establishments primarily engaged in flexographic printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in flexographic printing on purchased stock materials, such as stationery, invitations, labels, and similar items, on a job order basis.

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### **323113 Commercial Screen Printing**

This U.S. industry comprises establishments primarily engaged in screen printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in screen printing on purchased stock materials, such as stationery, invitations, labels, and similar items, on a job order basis. Establishments primarily engaged in printing on apparel and textile products, such as T-shirts, caps, jackets, towels, and napkins, are included in this industry.

### **323114 Quick Printing**

This U.S. industry comprises establishments primarily engaged in traditional printing activities, such as short-run offset printing or prepress services, in combination with providing document photocopying service. Prepress services include receiving documents in electronic format and directly duplicating from the electronic file and formatting, colorizing, and otherwise modifying the original document to improve presentation. These establishments, known as quick printers, generally provide short-run printing and copying with fast turnaround times.

### **323115 Digital Printing**

This U.S. industry comprises establishments primarily engaged in printing graphical materials using digital printing equipment. Establishments known as digital printers typically provide sophisticated prepress services including using scanners to input images and computers to manipulate and format the graphic images prior to printing.

### **323116 Manifold Business Forms Printing**

This U.S. industry comprises establishments primarily engaged in printing special forms, including checkbooks, for use in the operation of a business. The forms may be in single and multiple sets, including carbonized, interleaved with carbon, or otherwise processed for multiple reproduction.

### **323117 Books Printing**

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

### **323118 Blankbook, Looseleaf Binders, and Devices Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing blankbooks, looseleaf devices, and binders. Establishments in this industry may print or print and bind.

### **323119 Other Commercial Printing**

This U.S. industry comprises establishments primarily engaged in commercial printing (except lithographic, gravure, screen, or flexographic printing) without publishing (except books, grey goods, and manifold business forms). Printing processes included in this industry are letterpress printing and engraving printing. This industry includes establishments engaged in commercial printing on purchased stock materials, such as stationery, invitations, labels, and similar items, on a job order basis.

### **32312 SUPPORT ACTIVITIES FOR PRINTING**

This industry comprises establishments primarily engaged in performing prepress (e.g., platemaking, typesetting) and postpress services (e.g., book binding) in support of printing activities.

### **32312M SUPPORT ACTIVITIES FOR PRINTING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 323121 Tradebinding and Related Work and
2. 323122 Prepress Services.

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### **323121 Tradebinding and Related Work**

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

1. tradebinding;
2. sample mounting; and
3. postpress services (e.g., book or paper bronzing, die-cutting, edging, embossing, folding, gilding, gluing, indexing).

### **323122 Prepress Services**

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

1. prepress services, such as imagesetting or typesetting, for printers and
2. preparing film or plates for printing purposes.

## **324 PETROLEUM AND COAL PRODUCTS MANUFACTURING**

The Petroleum and Coal Products Manufacturing subsector is based on the transformation of crude petroleum and coal into usable products. The dominant process is petroleum refining that involves the separation of crude petroleum into component products through such techniques as cracking and distillation.

In addition, this subsector includes establishments that primarily further process refined petroleum and coal products and produce products, such as asphalt coatings and petroleum lubricating oils. However, establishments that manufacture petrochemicals from refined petroleum are classified in Industry 32511, Petrochemical Manufacturing.

### **3241 PETROLEUM AND COAL PRODUCTS MANUFACTURING**

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

1. Petroleum refineries manufacturing;
2. Asphalt paving, roofing, and saturated materials manufacturing; and/or
3. Other petroleum and coal products manufacturing.

#### **32411 PETROLEUM REFINERIES**

This industry comprises establishments primarily engaged in refining crude petroleum into refined petroleum. Petroleum refining involves one or more of the following activities:

1. fractionation;
2. straight distillation of crude oil; and
3. cracking.

#### **324110 PETROLEUM REFINERIES**

This U.S. industry comprises establishments primarily engaged in refining crude petroleum into refined petroleum. Petroleum refining involves one or more of the following activities:

1. fractionation;
2. straight distillation of crude oil; and
3. cracking.

### **32412 ASPHALT PAVING, ROOFING, AND SATURATED MATERIALS MANUFACTURING**

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

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1. manufacturing asphalt and tar paving mixtures and blocks and roofing cements and coatings from purchased asphaltic materials and/or
  2. saturating purchased mats and felts with asphalt or tar from purchased asphaltic materials.

#### **324121 ASPHALT PAVING MIXTURE AND BLOCK MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing asphalt and tar paving mixtures and blocks from purchased asphaltic materials.

#### **324122 ASPHALT SHINGLE AND COATING MATERIALS MANUFACTURING**

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

1. saturating purchased mats and felts with asphalt or tar from purchased asphaltic materials and
2. manufacturing asphalt and tar and roofing cements and coatings from purchased asphaltic materials.

#### **32419 OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing petroleum products (except asphalt paving, roofing and saturated materials) from refined petroleum or coal products made in coke ovens not integrated with a steel mill.

#### **324191 PETROLEUM LUBRICATING OIL AND GREASE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in blending or compounding refined petroleum to make lubricating oils and greases and/or re-refining used petroleum lubricating oils.

#### **324199 ALL OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing petroleum products (except asphalt paving, roofing, and saturated materials and lubricating oils and greases) from refined petroleum and coal products made in coke ovens not integrated with a steel mill.

### **325 CHEMICAL MANUFACTURING**

The Chemical Manufacturing subsector is based on the transformation of organic and inorganic raw materials by a chemical process and the formulation of products. This subsector distinguishes the production of basic chemicals that comprise the first industry group from the production of intermediate and end products produced by further processing of basic chemicals that make up the remaining industry groups.

This subsector does not include all industries transforming raw materials by a chemical process. It is common for some chemical processing to occur during mining operations. These beneficiating operations, such as copper concentrating, are classified in Sector 21, Mining. Furthermore, the refining of crude petroleum is included in Subsector 324, Petroleum and Coal Products Manufacturing. In addition, the manufacturing of aluminum oxide is included in Subsector 331, Primary Metal Manufacturing; and beverage distilleries are classified in Subsector 312, Beverage and Tobacco Product Manufacturing. As in the case of these two activities, the grouping of industries into subsectors may take into account the association of the activities performed with other activities in the subsector.

#### **3251 BASIC CHEMICAL MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing chemicals using basic processes, such as thermal cracking and distillation. Chemicals manufactured in this industry group are usually separate chemical elements or separate chemically-defined compounds.

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### **32511 PETROCHEMICAL MANUFACTURING**

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

1. manufacturing acyclic (i.e., aliphatic) hydrocarbons such as ethylene, propylene, and butylene made from refined petroleum or liquid hydrocarbon and/or
2. manufacturing cyclic aromatic hydrocarbons such as benzene, toluene, styrene, xylene, ethyl benzene, and cumene made from refined petroleum or liquid hydrocarbons.

### **325110 PETROCHEMICAL MANUFACTURING**

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

1. manufacturing acyclic (i.e., aliphatic) hydrocarbons such as ethylene, propylene, and butylene made from refined petroleum or liquid hydrocarbon and/or
2. manufacturing cyclic aromatic hydrocarbons such as benzene, toluene, styrene, xylene, ethyl benzene, and cumene made from refined petroleum or liquid hydrocarbons.

### **32512 INDUSTRIAL GAS MANUFACTURING**

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

### **325120 INDUSTRIAL GAS MANUFACTURING**

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

### **32513 SYNTHETIC DYE AND PIGMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing synthetic organic and inorganic dyes and pigments, such as lakes and toners (except electrostatic and photographic).

### **32513M SYNTHETIC DYE AND PIGMENT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 325131 Inorganic Dye and Pigment Manufacturing and
2. 325132 Synthetic Organic Dye and Pigment Manufacturing.

### **325131 Inorganic Dye and Pigment Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing inorganic dyes and pigments.

### **325132 Synthetic Organic Dye and Pigment Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing synthetic organic dyes and pigments, such as lakes and toners (except electrostatic and photographic).

### **32518 OTHER BASIC INORGANIC CHEMICAL MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing basic inorganic chemicals (except industrial gases and synthetic dyes and pigments).

### **325181 ALKALIES AND CHLORINE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing chlorine, sodium hydroxide (i.e., caustic soda), and other alkalies often using an electrolysis process.

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### **325182 CARBON BLACK MANUFACTURING**

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

### **325188 ALL OTHER BASIC INORGANIC CHEMICAL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing basic inorganic chemicals (except industrial gases, inorganic dyes and pigments, alkalies and chlorine, and carbon black).

### **32519 OTHER BASIC ORGANIC CHEMICAL MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing basic organic chemicals (except petrochemicals, industrial gases, and synthetic dyes and pigments).

### **32519M OTHER BASIC ORGANIC CHEMICAL MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 325191 Gum and Wood Chemical Manufacturing;
2. 325192 Cyclic Crude and Intermediate Manufacturing;
3. 325193 Ethyl Alcohol Manufacturing; and
4. 325199 All Other Basic Organic Chemical Manufacturing.

#### **325191 Gum and Wood Chemical Manufacturing**

This U.S. industry comprises establishments primarily engaged in (1) distilling wood or gum into products, such as tall oil and wood distillates, and (2) manufacturing wood or gum chemicals, such as naval stores, natural tanning materials, charcoal briquettes, and charcoal (except activated).

#### **325192 Cyclic Crude and Intermediate Manufacturing**

This U.S. industry comprises establishments primarily engaged in (1) distilling coal tars and/or (2) manufacturing cyclic crudes or, cyclic intermediates (i.e., hydrocarbons, except aromatic petrochemicals) from refined petroleum or natural gas.

#### **325193 Ethyl Alcohol Manufacturing**

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

#### **325199 All Other Basic Organic Chemical Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing basic organic chemical products (except aromatic petrochemicals, industrial gases, synthetic organic dyes and pigments, gum and wood chemicals, cyclic crudes and intermediates, and ethyl alcohol).

### **3252 RESIN, SYNTHETIC RUBBER, AND ARTIFICIAL AND SYNTHETIC FIBERS AND FILAMENTS MANUFACTURING**

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

1. Resin and synthetic rubber manufacturing and
2. Artificial and synthetic fibers and filaments manufacturing.

#### **32521 RESIN AND SYNTHETIC RUBBER MANUFACTURING**

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

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1. manufacturing synthetic resins, plastics materials, and nonvulcanizable elastomers and mixing and blending resins on a custom basis;
  2. manufacturing noncustomized synthetic resins; and
  3. manufacturing synthetic rubber.

### **325211 PLASTICS MATERIAL AND RESIN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in

1. manufacturing resins, plastics materials, and nonvulcanizable thermoplastic elastomers and mixing and blending resins on a custom basis and/or
2. manufacturing noncustomized synthetic resins.

### **325212 SYNTHETIC RUBBER MANUFACTURING**

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

### **32522 ARTIFICIAL AND SYNTHETIC FIBERS AND FILAMENTS MANUFACTURING**

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

1. manufacturing cellulosic (i.e., rayon and acetate) and noncellulosic (i.e., nylon, polyolefin, and polyester) fibers and filaments in the form of monofilament, filament yarn, staple, or tow or
2. manufacturing and texturing cellulosic and noncellulosic fibers and filaments.

### **32522M ARTIFICIAL AND SYNTHETIC FIBERS AND FILAMENTS MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 325221 Cellulosic Organic Fiber Manufacturing and
2. 325222 Noncellulosic Organic Fiber Manufacturing.

#### **325221 Cellulosic Organic Fiber Manufacturing**

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

1. manufacturing cellulosic (i.e., rayon and acetate) fibers and filaments in the form of monofilament, filament yarn, staple, or tow or
2. manufacturing and texturizing cellulosic fibers and filaments.

#### **325222 Noncellulosic Organic Fiber Manufacturing**

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

1. manufacturing noncellulosic (i.e., nylon, polyolefin, and polyester) fibers and filaments in the form of monofilament, filament yarn, staple, or tow, or
2. manufacturing and texturizing noncellulosic fibers and filaments.

### **3253 PESTICIDE, FERTILIZER, AND OTHER AGRICULTURAL CHEMICAL MANUFACTURING**

This industry group includes establishments classified in one of the following:

1. Fertilizer manufacturing and/or
2. Pesticide and other agricultural chemical manufacturing.



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### **32531 FERTILIZER MANUFACTURING**

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

1. manufacturing nitrogenous or phosphatic fertilizer materials;
2. manufacturing fertilizers from sewage or animal waste;
3. manufacturing nitrogenous or phosphatic materials and mixing with other ingredients into fertilizers; and
4. mixing ingredients made elsewhere into fertilizers.

### **325311 NITROGENOUS FERTILIZER MANUFACTURING**

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

1. manufacturing nitrogenous fertilizer materials and mixing ingredients into fertilizers;
2. manufacturing fertilizers from sewage or animal waste; and
3. manufacturing nitrogenous materials and mixing them into fertilizers.

### **325312 PHOSPHATIC FERTILIZER MANUFACTURING**

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

1. manufacturing phosphatic fertilizer materials or
2. manufacturing phosphatic materials and mixing them into fertilizers.

### **325314 FERTILIZER (MIXING ONLY) MANUFACTURING**

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

### **32532 PESTICIDE AND OTHER AGRICULTURAL CHEMICAL MANUFACTURING**

This industry comprises establishments primarily engaged in the formulation and preparation of agricultural and household pest control chemicals (except fertilizers).

### **325320 PESTICIDE AND OTHER AGRICULTURAL CHEMICAL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in the formulation and preparation of agricultural and household pest control chemicals (except fertilizers).

### **3254 PHARMACEUTICAL AND MEDICINE MANUFACTURING**

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

1. Manufacturing biological and medicinal products;
2. Processing (i.e., grading, grinding, and milling) botanical drugs and herbs;
3. Isolating active medicinal principals from botanical drugs and herbs; and
4. Manufacturing pharmaceutical products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

### **32541 PHARMACEUTICAL AND MEDICINE MANUFACTURING**

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

1. manufacturing biological and medicinal products;
2. processing (i.e., grading, grinding, and milling) botanical drugs and herbs;

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3. isolating active medicinal principals from botanical drugs and herbs; and
  4. manufacturing pharmaceutical products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

#### **325411 MEDICINAL AND BOTANICAL MANUFACTURING**

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

1. manufacturing uncompounded medicinal chemicals and their derivatives (i.e., generally for use by pharmaceutical preparation manufacturers) and/or
2. grading, grinding, and milling uncompounded botanicals.

#### **325412 PHARMACEUTICAL PREPARATION MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing in-vivo diagnostic substances and pharmaceutical preparations (except biological) intended for internal and external consumption in dose forms, such as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

#### **325413 IN-VITRO DIAGNOSTIC SUBSTANCE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing in-vitro (i.e., not taken internally) diagnostic substances, such as chemical, biological, or radioactive substances. The substances are used for diagnostic tests that are performed in test tubes, petri dishes, machines, and other diagnostic test-type devices.

#### **325414 BIOLOGICAL PRODUCT (EXCEPT DIAGNOSTIC) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing vaccines, toxoids, blood fractions, and culture media of plant or animal origin (except diagnostic).

#### **3255 PAINT, COATING, AND ADHESIVE MANUFACTURING**

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

1. Paint and coating manufacturing and/or
2. Adhesive manufacturing.

#### **32551 PAINT AND COATING MANUFACTURING**

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

1. mixing pigments, solvents, and binders into paints and other coatings, such as stains, varnishes, lacquers, enamels, shellacs, and water repellent coatings for concrete and masonry, and/or
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.

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### **32552 ADHESIVE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing adhesives, glues, and caulking compounds.

### **325520 ADHESIVE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing adhesives, glues, and caulking compounds.

### **3256 SOAP, CLEANING COMPOUND, AND TOILET PREPARATION MANUFACTURING**

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

1. Soap and cleaning compound manufacturing and/or
2. Toilet preparation manufacturing.

### **32561 SOAP AND CLEANING COMPOUND MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and packaging soap and other cleaning compounds, surface active agents, and textile and leather finishing agents used to reduce tension or speed the drying process.

### **32561M SOAP AND CLEANING COMPOUND MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 325611 Soap and Other Detergent Manufacturing
2. 325612 Polish and Other Sanitation Good Manufacturing; and
3. 325613 Surface Active Agent Manufacturing.

### **325611 Soap and Other Detergent Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing and packaging soaps and other detergents, such as laundry detergents, dishwashing detergents, toothpaste gels and tooth powders and natural glycerin.

### **325612 Polish and Other Sanitation Good Manufacturing**

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

### **325613 Surface Active Agent Manufacturing**

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

1. manufacturing bulk surface active agents for use as wetting agents, emulsifiers, and penetrants, and/or
2. manufacturing textiles and leather finishing agents used to reduce tension or speed the drying process.

### **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.

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### **325620 TOILET PREPARATION MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in preparing, blending, compounding, and packaging toilet preparations, such as perfumes, shaving preparations, hair preparations, face creams, lotions (including sunscreens), and other cosmetic preparations.

### **3259 OTHER CHEMICAL PRODUCT AND PREPARATION MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals; resins, synthetic rubber, cellulosic and noncellulosic fibers and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings, and adhesives; soaps and cleaning compounds; and toilet preparations).

### **32591 PRINTING INK MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing printing and inkjet inks and inkjet cartridges.

### **325910 PRINTING INK MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing printing and inkjet inks and inkjet cartridges.

### **32592 EXPLOSIVES MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing explosives.

### **325920 EXPLOSIVES MANUFACTURING**

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

### **32599 ALL OTHER CHEMICAL PRODUCT AND PREPARATION MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals, resins, and synthetic rubber; cellulosic and noncellulosic fibers and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings, and adhesives; and soaps, cleaning compounds, and toilet preparations; printing inks; and explosives).

### **325991 CUSTOM COMPOUNDING OF PURCHASED RESINS**

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

1. custom mixing and blending plastics resins made elsewhere or
2. reformulating plastics resins from recycled plastics products.

### **32599N ALL OTHER MISCELLANEOUS CHEMICAL PRODUCT AND PREPARATION MANUFACTURING (INCLUDING PHOTOGRAPHIC)**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 325992 Photographic Film, Paper, Plate, and Chemical Manufacturing and
2. 325998 All Other Miscellaneous Chemical Product and Preparation Manufacturing.

### **325992 Photographic Film, Paper, Plate, and Chemical Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing sensitized film, sensitized paper, sensitized cloth, sensitized plates, toners (i.e., for photocopiers, laser printers, and similar electrostatic printing devices), toner cartridges, and photographic chemicals.

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### **325998 All Other Miscellaneous Chemical Product and Preparation Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals, resins, synthetic rubber; cellulosic and noncellulosic fiber and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings and adhesives; soap, cleaning compounds, and toilet preparations; printing inks; explosives; custom compounding of purchased resins; and photographic films, papers, plates, and chemicals).

### **326 PLASTICS AND RUBBER PRODUCTS MANUFACTURING**

Industries in the Plastics and Rubber Products Manufacturing subsector make goods by processing plastics materials and raw rubber. The core technology employed by establishments in this subsector is that of plastics or rubber product production. Plastics and rubber are combined in the same subsector because plastics are increasingly being used as a substitute for rubber; however the subsector is generally restricted to the production of products made of just one material, either solely plastics or rubber.

Many manufacturing activities use plastics or rubber, for example the manufacture of footwear, or furniture. Typically, the production process of these products involves more than one material. In these cases, technologies that allow disparate materials to be formed and combined are of central importance in describing the manufacturing activity. In NAICS, such activities (the footwear and furniture manufacturing) are not classified in the Plastics and Rubber Products Manufacturing subsector because the core technologies for these activities are diverse and involve multiple materials.

Within the Plastics and Rubber Products Manufacturing subsector, a distinction is made between plastics and rubber products at the industry group level, although it is not a rigid distinction, as can be seen from the definition of Industry 32622, Rubber and Plastics Hoses and Belting Manufacturing. As materials technology progresses, plastics are increasingly being used as a substitute for rubber; and eventually, the distinction may disappear as a basis for establishment classification.

In keeping with the core technology focus of plastics, lamination of plastics film to plastics film as well as the production of bags from plastics only is classified in this subsector. Lamination and bag production involving plastics and materials other than plastics are classified in the NAICS Subsector 322, Paper Manufacturing.

### **3261 PLASTICS PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in processing new or spent (i.e., recycled) plastics resins into intermediate or final products, using such processes as compression molding; extrusion molding; injection molding; blow molding; and casting. Within most of these industries, the production process is such that a wide variety of products can be made.

### **32611 PLASTICS PACKAGING MATERIALS AND UNLAMINATED FILM AND SHEET MANUFACTURING**

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

1. converting plastics resins into unsupported plastics film and sheet and/or
2. forming, coating or laminating plastics film and sheet into plastics bags.

### **326111 PLASTICS BAG MANUFACTURING**

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

1. converting plastics resins into plastics bags or
2. forming, coating, or laminating plastics film and sheet into single wall or multiwall plastics bags.

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Establishments in this industry may print on the bags they manufacture.

**326112 PLASTICS PACKAGING FILM AND SHEET (INCLUDING LAMINATED) MANUFACTURING**

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

**326113 UNLAMINATED PLASTICS FILM AND SHEET (EXCEPT PACKAGING) MANUFACTURING**

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

**32612 PLASTICS PIPE, PIPE FITTING, AND UNLAMINATED PROFILE SHAPE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing plastics pipes and pipe fittings, and plastics profile shapes such as rod, tube, and sausage casings.

**326121 UNLAMINATED PLASTICS PROFILE SHAPE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting plastics resins into nonrigid plastics profile shapes (except film, sheet, and bags), such as rod, tube, and sausage casings.

**326122 PLASTICS PIPE AND PIPE FITTING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in converting plastics resins into rigid plastics pipes and pipe fittings.

**32613 LAMINATED PLASTICS PLATE, SHEET (EXCEPT PACKAGING), AND SHAPE MANUFACTURING**

This industry comprises establishments primarily engaged in laminating plastics profile shapes such as plate, sheet (except packaging), and rod. The lamination process generally involves bonding or impregnating profiles with plastics resins and compressing them under heat.

**326130 LAMINATED PLASTICS PLATE, SHEET (EXCEPT PACKAGING), AND SHAPE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in laminating plastics profile shapes such as plate, sheet (except packaging), and rod. The lamination process generally involves bonding or impregnating profiles with plastics resins and compressing them under heat.

**32614 POLYSTYRENE FOAM PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing polystyrene foam products.

**326140 POLYSTYRENE FOAM PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing polystyrene foam products.

**32615 URETHANE AND OTHER FOAM PRODUCT (EXCEPT POLYSTYRENE) MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing plastics foam products (except polystyrene).

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### **326150 URETHANE AND OTHER FOAM PRODUCT (EXCEPT POLYSTYRENE) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing plastics foam products (except polystyrene).

### **32616 PLASTICS BOTTLE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing plastics bottles.

### **326160 PLASTICS BOTTLE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing plastics bottles.

### **32619 OTHER PLASTICS PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing resilient floor covering and other plastics products (except film, sheet, bags, profile shapes, pipes, pipe fittings, laminates, foam products, and bottles).

### **32619M OTHER PLASTICS PRODUCT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 326191 Plastics Plumbing Fixture Manufacturing;
2. 326192 Resilient Floor Covering Manufacturing; and
3. 326199 All Other Plastics Product Manufacturing.

### **326191 Plastics Plumbing Fixture Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing plastics or fiberglass plumbing fixtures. Examples of products made by these establishments are plastics or fiberglass bathtubs, hot tubs, portable toilets, and shower stalls.

### **326192 Resilient Floor Covering Manufacturing**

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

### **326199 All Other Plastics Product Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing plastics products (except film, sheet, bags, profile shapes, pipes, pipe fittings, laminates, foam products, bottles, plumbing fixtures, and resilient floor coverings).

### **3262 RUBBER PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in processing natural, and synthetic or reclaimed rubber materials into intermediate or final products using processes such as vulcanizing, cementing, molding, extruding, and lathe-cutting.

### **32621 TIRE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing tires and inner tubes from natural and synthetic rubber and retreading or rebuilding tires.

### **32621M TIRE MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

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1. 326211 Tire Manufacturing (except Retreading) and
  2. 326212 Tire Retreading.

### **326211 Tire Manufacturing (except Retreading)**

This U.S. industry comprises establishments primarily engaged in manufacturing tires and inner tubes from natural and synthetic rubber.

### **326212 Tire Retreading**

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

## **32622 RUBBER AND PLASTICS HOSES AND BELTING MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing rubber hose and/or plastics (reinforced) hose and belting from natural and synthetic rubber and/or plastics resins. Establishments manufacturing garden hoses from purchased hose are included in this industry.

### **326220 RUBBER AND PLASTICS HOSES AND BELTING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing rubber hose and/or plastics (reinforced) hose and belting from natural and synthetic rubber and/or plastics resins. Establishments manufacturing garden hoses from purchased hose are included in this industry.

### **32629 OTHER RUBBER PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing rubber products (except tires, hoses, and belting) from natural and synthetic rubber.

### **32629M OTHER RUBBER PRODUCT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 326291 Rubber Product Manufacturing for Mechanical Use and
2. 326299 All Other Rubber Product Manufacturing.

### **326291 Rubber Product Manufacturing for Mechanical Use**

This U.S. industry comprises establishments primarily engaged in molding, extruding, or lathe-cutting rubber to manufacture rubber goods (except tubing) for mechanical applications. Products of this industry are generally parts for motor vehicles, machinery, and equipment.

### **326299 All Other Rubber Product Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing rubber products (except tires; hoses and belting; and molded, extruded, and lathe-cut rubber goods for mechanical applications) from natural and synthetic rubber.

## **327 NONMETALLIC MINERAL PRODUCT MANUFACTURING**

The Nonmetallic Mineral Product Manufacturing subsector transforms mined or quarried nonmetallic minerals, such as sand, gravel, stone, clay, and refractory materials, into products for intermediate or final consumption. Processes used include grinding, mixing, cutting, shaping, and honing. Heat often is used in the process and chemicals are frequently mixed to change the composition, purity, and chemical properties for the intended product. For example, glass is produced by heating silica sand to the melting point (sometimes combined with cullet or recycled glass) and then drawn, floated, or blow molded to the desired shape or thickness. Refractory materials are



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heated and then formed into bricks or other shapes for use in industrial applications. The Nonmetallic Mineral Product Manufacturing subsector includes establishments that manufacture products, such as bricks, refractories, ceramic products, and glass and glass products, such as plate glass and containers. Also included are cement and concrete products, lime, gypsum and other nonmetallic mineral products including abrasive products, ceramic plumbing fixtures, statuary, cut stone products, and mineral wool. The products are used in a wide range of activities from construction and heavy and light manufacturing to articles for personal use.

Mining, beneficiating, and manufacturing activities often occur in a single location. Separate receipts will be collected for these activities whenever possible. When receipts cannot be broken out between mining and manufacturing, establishments that mine or quarry nonmetallic minerals, beneficiate the nonmetallic minerals and further process the nonmetallic minerals into a more finished manufactured product are classified based on the primary activity of the establishment. A mine that manufactures a small amount of finished products will be classified in Sector 21, Mining. An establishment that mines whose primary output is a more-finished manufactured product will be classified in the Manufacturing Sector.

Excluded from the Nonmetallic Mineral Product Manufacturing subsector are establishments that primarily beneficiate mined nonmetallic minerals. Beneficiation is the process whereby the extracted material is reduced to particles that can be separated into mineral and waste, the former suitable for further processing or direct use. Beneficiation establishments are included in Sector 21, Mining.

### **3271 CLAY PRODUCT AND REFRACTORY MANUFACTURING**

This industry group comprises establishments primarily engaged in shaping, molding, glazing, and firing pottery, ceramics, and plumbing fixtures made entirely or partly of clay or other ceramic materials and/or shaping, molding, baking, burning, or hardening clay refractories, non-clay refractories, ceramic tile, structural clay tile, brick, and other structural clay building materials.

#### **32711 POTTERY, CERAMICS, AND PLUMBING FIXTURE MANUFACTURING**

This industry comprises establishments primarily engaged in shaping, molding, glazing, and firing pottery, ceramics, and plumbing fixtures made entirely or partly of clay or other ceramic materials.

##### **327111 VITREOUS CHINA PLUMBING FIXTURE AND CHINA AND EARTHENWARE BATHROOM ACCESSORIES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing vitreous china plumbing fixtures and china and earthenware bathroom accessories, such as faucet handles, towel bars, and soap dishes.

##### **327112 VITREOUS CHINA, FINE EARTHENWARE, AND OTHER POTTERY PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing table and kitchen articles, art and ornamental items, and similar vitreous china, fine earthenware, stoneware, coarse earthenware, and pottery products.

##### **327113 PORCELAIN ELECTRICAL SUPPLY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing porcelain electrical insulators, molded porcelain parts for electrical devices, ferrite or ceramic magnets, and electronic and electrical supplies from nonmetallic minerals, such as clay and ceramic materials.

#### **32712 CLAY BUILDING MATERIAL AND REFRACTORIES MANUFACTURING**

This industry comprises establishments primarily engaged in shaping, molding, baking, burning, or hardening clay refractories, nonclay refractories, ceramic tile, structural clay tile, brick, and other structural clay building materials.

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### **327121 BRICK AND STRUCTURAL CLAY TILE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing brick and structural clay tiles.

### **327122 CERAMIC WALL AND FLOOR TILE MANUFACTURING**

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

### **327123 OTHER STRUCTURAL CLAY PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing clay sewer pipe, drain tile, flue lining tile, architectural terra-cotta, and other structural clay products.

### **32712N REFRACTORY MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 327124 Clay Refractory Manufacturing and
2. 327125 Nonclay Refractory Manufacturing.

#### **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.

#### **327125 Nonclay Refractory Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing nonclay refractory, mortar, brick, block, tile, and fabricated nonclay refractories such as graphite, magnesite, silica, or alumina crucibles. A refractory is a material that will retain its shape and chemical identity when subjected to high temperatures and is used in applications that require extreme resistance to heat, such as furnace linings.

### **3272 GLASS AND GLASS PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing glass and/or glass products. Establishments in this industry may manufacture glass and/or glass products by melting silica sand or cullet, or purchasing glass.

#### **32721 GLASS AND GLASS PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing glass and/or glass products. Establishments in this industry may manufacture glass and/or glass products by melting silica sand or cullet, or purchasing glass.

##### **327211 FLAT GLASS MANUFACTURING**

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

1. manufacturing flat glass by melting silica sand or cullet; or
2. manufacturing both flat glass and laminated glass by melting silica sand or cullet.

##### **327212 OTHER PRESSED AND BLOWN GLASS AND GLASSWARE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing glass by melting silica sand or cullet and making pressed, blown, or shaped glass or glassware (except glass packaging containers).

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### **327213 GLASS CONTAINER MANUFACTURING**

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

### **327215 GLASS PRODUCT MANUFACTURING MADE OF PURCHASED GLASS**

This U.S. industry comprises establishments primarily engaged in coating, laminating, tempering, or shaping purchased glass.

### **3273 CEMENT AND CONCRETE PRODUCT MANUFACTURING**

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

1. Cement manufacturing;
2. Ready-mix concrete manufacturing;
3. Concrete pipe, brick, and block manufacturing; and/or
4. Other concrete product manufacturing.

### **32731 CEMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing portland, natural, masonry, pozzalanic, and other hydraulic cements. Cement manufacturing establishments may calcine earths or mine, quarry, manufacture, or purchase lime.

### **327310 CEMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing portland, natural, masonry, pozzalanic, and other hydraulic cements. Cement manufacturing establishments may calcine earths or mine, quarry, manufacture, or purchase lime.

### **32732 READY-MIX CONCRETE MANUFACTURING**

This industry comprises establishments, such as batch plants or mix plants, primarily engaged in manufacturing concrete delivered to a purchaser in a plastic and unhardened state. Ready-mix concrete manufacturing establishments may mine, quarry, or purchase sand and gravel.

### **327320 READY-MIX CONCRETE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing concrete delivered to a purchaser, such as batch plants or mix plants, in a plastic and unhardened state. Ready-mix concrete manufacturing establishments may mine, quarry, or purchase sand and gravel.

### **32733 CONCRETE PIPE, BRICK, AND BLOCK MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing concrete pipe, brick, and block.

### **32733M CONCRETE PIPE, BRICK, AND BLOCK MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 327331 Concrete Block and Brick Manufacturing and
2. 327332 Concrete Pipe Manufacturing.

### **327331 Concrete Block and Brick Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing concrete block and brick.

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### **327332 Concrete Pipe Manufacturing**

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

### **32739 OTHER CONCRETE PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing concrete products (except block, brick, and pipe).

### **327390 OTHER CONCRETE PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing concrete products (except block, brick, and pipe).

### **3274 LIME AND GYPSUM PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing lime from calcitic limestone, dolomitic limestone, or other calcareous materials, such as coral, chalk, and shells and/or gypsum products such as wallboard, plaster, plasterboard, molding, ornamental moldings, statuary, and architectural plaster work.

### **32741 LIME MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing lime from calcitic limestone, dolomitic limestone, or other calcareous materials, such as coral, chalk, and shells. Lime manufacturing establishments may mine, quarry, collect, or purchase the sources of calcium carbonate.

### **327410 LIME MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing lime from calcitic limestone, dolomitic limestone, or other calcareous materials, such as coral, chalk, and shells. Lime manufacturing establishments may mine, quarry, collect, or purchase the sources of calcium carbonate.

### **32742 GYPSUM PRODUCT MANUFACTURING**

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

### **327420 GYPSUM PRODUCT MANUFACTURING**

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

### **3279 OTHER NONMETALLIC MINERAL PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except clay products, refractory products, glass products, cement and concrete products, lime, and gypsum products).

### **32791 ABRASIVE PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing abrasive grinding wheels of natural or synthetic materials, abrasive-coated products, and other abrasive products.

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### **327910 ABRASIVE PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing abrasive grinding wheels of natural or synthetic materials, abrasive-coated products, and other abrasive products.

### **32799 ALL OTHER NONMETALLIC MINERAL PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except pottery, ceramics, and plumbing fixtures; clay building materials and refractories; glass and glass products; cement; ready-mix concrete; concrete products; lime; gypsum products; and abrasive products).

### **327991 CUT STONE AND STONE PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in cutting, shaping, and finishing granite, marble, limestone, slate, and other stone for building and miscellaneous uses. Stone product manufacturing establishments may mine, quarry, or purchase stone.

### **327992 GROUND OR TREATED MINERAL AND EARTH MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in calcining, dead burning, or otherwise processing beyond beneficiation, clays, ceramic and refractory minerals, barite, and miscellaneous nonmetallic minerals.

### **327993 MINERAL WOOL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing mineral wool and mineral wool (i.e., fiberglass) insulation products made of such siliceous materials as rock, slag, and glass or combinations thereof.

### **327999 ALL OTHER MISCELLANEOUS NONMETALLIC MINERAL PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except pottery, ceramics, and plumbing fixtures; clay building materials and refractories; glass and glass products; cement; ready-mix concrete; concrete products; lime; gypsum products; abrasive products; cut stone and stone products; ground and treated minerals and earth; and mineral wool).

### **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

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shapes, forging and stamping do not use molten metals and are included in Subsector 332, Fabricated Metal Product Manufacturing. Establishments primarily engaged in operating coke ovens are classified in Industry 32419, Other Petroleum and Coal Products Manufacturing.

### **3311 IRON AND STEEL MILLS AND FERROALLOY MANUFACTURING**

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

1. Direct reduction of iron ore;
2. Manufacturing pig iron in molten or solid form;
3. Converting pig iron into steel;
4. Manufacturing ferroalloys;
5. Making steel;
6. Making steel and manufacturing shapes (e.g., bar, plate, rod, sheet, strip, and wire); and
7. Making steel and forming pipe and tube.

### **33111 IRON AND STEEL MILLS AND FERROALLOY MANUFACTURING**

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, and wire); and
7. making steel and forming pipe and tube.

### **33111M IRON AND STEEL MILLS AND FERROALLOY MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 331111 Iron and Steel Mills and
2. 331112 Electrometallurgical Ferroalloy Product Manufacturing.

### **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.

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### **331112 Electrometallurgical Ferroalloy Product Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing electrometallurgical ferroalloys. Ferroalloys add critical elements, such as silicon and manganese for carbon steel and chromium, vanadium, tungsten, titanium, and molybdenum for low- and high-alloy metals. Ferroalloys include iron-rich alloys and more pure forms of elements added during the steel manufacturing process that alter or improve the characteristics of the metal being made.

### **3312 STEEL PRODUCT MANUFACTURING FROM PURCHASED STEEL**

This industry group comprises establishments primarily engaged in manufacturing iron and steel tube and pipe; drawing steel wire; and rolling or drawing shapes from purchased iron or steel.

### **33121 IRON AND STEEL PIPE AND TUBE MANUFACTURING FROM PURCHASED STEEL**

This industry comprises establishments primarily engaged in manufacturing welded, riveted, or seamless pipe and tube from purchased iron or steel.

### **331210 IRON AND STEEL PIPE AND TUBE MANUFACTURING FROM PURCHASED STEEL**

This U.S. industry comprises establishments primarily engaged in manufacturing welded, riveted, or seamless pipe and tube from purchased iron or steel.

### **33122 ROLLING AND DRAWING OF PURCHASED STEEL**

This industry comprises establishments primarily engaged in rolling and/or drawing steel shapes, such as plate, sheet, strip, rod, and bar, from purchased steel.

### **33122M ROLLING AND DRAWING OF PURCHASED STEEL**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 331221 Rolled Steel Shape Manufacturing and
2. 331222 Steel Wire Drawing.

### **331221 Rolled Steel Shape Manufacturing**

This U.S. industry comprises establishments primarily engaged in rolling or drawing shapes (except wire), such as plate, sheet, strip, rod, and bar, from purchased steel.

### **331222 Steel Wire Drawing**

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

### **3313 ALUMINA AND ALUMINUM PRODUCTION AND PROCESSING**

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

1. Refining alumina;
2. Making (i.e., the primary production) aluminum from alumina;
3. Recovering aluminum from scrap or dross;
4. Alloying purchased aluminum; and
5. Manufacturing aluminum primary forms (e.g., bar, foil, pipe, plate, rod, sheet, tube, and wire).

### **33131 ALUMINA AND ALUMINUM PRODUCTION AND PROCESSING**

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

1. refining alumina;

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2. making (i.e., the primary production) aluminum from alumina;
  3. recovering aluminum from scrap or dross;
  4. alloying purchased aluminum; and
  5. manufacturing aluminum primary forms (e.g., bar, foil, pipe, plate, rod, sheet, tube, and wire).

### **331311 ALUMINA REFINING**

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

### **331312 PRIMARY ALUMINUM PRODUCTION**

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

1. making aluminum from alumina and/or
2. making aluminum from alumina and rolling, drawing, extruding, or casting the aluminum they make into primary forms (e.g., bar, billet, ingot, plate, rod, sheet, and strip).

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

### **331314 SECONDARY SMELTING AND ALLOYING OF ALUMINUM**

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

1. recovering aluminum and aluminum alloys from scrap and/or dross (i.e., secondary smelting) and making billet or ingot (except by rolling) and/or
2. manufacturing alloys, powder, paste, or flake from purchased aluminum.

### **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.

### **33131N ALUMINUM ROLLING AND DRAWING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 331315 Aluminum Sheet, Plate, and Foil Manufacturing and
2. 331319 Other Aluminum Rolling and Drawing.

#### **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.

#### **331319 Other Aluminum Rolling and Drawing**

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



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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.

### **3314 NONFERROUS METAL (EXCEPT ALUMINUM) PRODUCTION AND PROCESSING**

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

1. Nonferrous metal (except aluminum) smelting and refining;
2. Copper rolling, drawing, extruding, and alloying; and/or
3. Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying.

### **33141 NONFERROUS METAL (EXCEPT ALUMINUM) SMELTING AND REFINING**

This industry comprises establishments primarily engaged in:

1. smelting ores into nonferrous metals and/or
2. the primary refining of nonferrous metals (except aluminum) using electrolytic or other processes.

### **331411 PRIMARY SMELTING AND REFINING OF COPPER**

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

1. smelting copper ore and/or
2. the primary refining of copper by electrolytic methods or other processes.

Establishments in this industry make primary copper and copper-based alloys, such as brass and bronze, from ore or concentrates.

### **331419 PRIMARY SMELTING AND REFINING OF NONFERROUS METAL (EXCEPT COPPER AND ALUMINUM)**

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

1. making (primary production) nonferrous metals by smelting ore and/or
2. the primary refining of nonferrous metals by electrolytic methods or other processes.

### **33142 COPPER ROLLING, DRAWING, EXTRUDING, AND ALLOYING**

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

1. recovering copper or copper alloys from scraps;
2. alloying purchased copper;
3. rolling, drawing, or extruding shapes, (e.g., bar, plate, sheet, strip, tube, wire) from purchased copper; and
4. recovering copper or copper alloys from scrap and rolling drawing, or extruding shapes (e.g., bar, plate, sheet, strip, tube, wire).

### **33142M COPPER ROLLING, DRAWING, EXTRUDING, AND ALLOYING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 331421 Copper Rolling, Drawing, and Extruding;

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2. 331422 Copper Wire (except Mechanical) Drawing; and
  3. 331423 Secondary Smelting, Refining, and Alloying of Copper.

### **331421 Copper Rolling, Drawing, and Extruding**

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

1. rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube (except bare or insulated copper communication or energy wire)) from purchased copper and/or
2. recovering copper from scrap and rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube (except bare or insulated copper communication or energy wire) in integrated mills.

### **331422 Copper Wire (except Mechanical) Drawing**

This U.S. industry comprises establishments primarily engaged in drawing or drawing and insulating communication and energy wire and cable from purchased copper or in integrated secondary smelting and wire drawing plants.

### **331423 Secondary Smelting, Refining, and Alloying of Copper**

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

1. recovering copper and copper alloys from scrap and/or
2. alloying purchased copper.

Establishments in this industry make primary forms, such as ingot, wire bar, cake, and slab from copper or copper alloys, such as brass and bronze.

### **33149 NONFERROUS METAL (EXCEPT COPPER AND ALUMINUM) ROLLING, DRAWING, EXTRUDING, AND ALLOYING**

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

1. recovering nonferrous metals (except copper and aluminum) and nonferrous metal alloys from scrap;
2. alloying purchased nonferrous metals (except copper and aluminum);
3. rolling, drawing, and extruding shapes from purchased nonferrous metals (except copper and aluminum); and
4. recovering nonferrous metals from scrap (except copper and aluminum) and rolling, drawing, or extruding shapes in integrated facilities.

### **33149M NONFERROUS METAL (EXCEPT COPPER AND ALUMINUM) ROLLING, DRAWING, EXTRUDING, AND ALLOYING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 331491 Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding and
2. 331492 Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum).

### **331491 Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding**

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

1. rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube) from purchased nonferrous metals and/or

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2. recovering nonferrous metals from scrap and rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube) in integrated mills.

### **331492 Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)**

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

1. alloying purchased nonferrous metals and/or
2. recovering nonferrous metals from scrap.

Establishments in this industry make primary forms (e.g., bar, billet, bloom, cake, ingot, slab, slug, and wire) using smelting or refining processes.

### **3315 FOUNDRIES**

This industry group comprises establishments primarily engaged in pouring molten metal into molds or dies to form castings. Establishments making castings and further manufacturing, such as machining or assembling, a specific manufactured product are classified in the industry of the finished product. Foundries may perform operations, such as cleaning and deburring, on the castings they manufacture. More involved processes, such as tapping, threading, milling, or machining to tight tolerances, that transform castings into more finished products are classified elsewhere in the manufacturing sector based on the product being made.

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 made castings. Establishments in this industry purchase iron and steel made in other establishments.

### **33151M FERROUS METAL FOUNDRIES**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 331511 Iron Foundries;
2. 331512 Steel Investment Foundries; and
3. 331513 Steel Foundries (except Investment).

### **331511 Iron Foundries**

This U.S. industry comprises establishments primarily engaged in pouring molten pig iron or iron alloys into molds to manufacture castings (e.g., cast iron manhole covers, cast iron pipe, cast iron skillets). Establishments in this industry purchase iron made in other establishments.

### **331512 Steel Investment Foundries**

This U.S. industry comprises establishments primarily engaged in manufacturing steel investment castings. Investment molds are formed by covering a wax shape with a refractory slurry. After the refractory slurry hardens, the wax is melted, leaving a seamless mold. Investment molds provide highly detailed, consistent castings. Establishments in this industry purchase steel made in other establishments.

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### **331513 Steel Foundries (except Investment)**

This U.S. industry comprises establishments primarily engaged in manufacturing steel castings (except steel investment castings). Establishments in this industry purchase steel made in other establishments.

### **33152 NONFERROUS METAL FOUNDRIES**

This industry comprises establishments primarily engaged in pouring and/or introducing molten nonferrous metal, under high pressure, into metal molds or dies to manufacture castings. Establishments in this industry purchase nonferrous metals made in other establishments.

### **33152N ALUMINUM FOUNDRIES**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 331521 Aluminum Die-Casting Foundries) and
2. 331524 Aluminum Foundries (except Die-Casting).

### **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.

### **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.

### **33152P FOUNDRIES NOT ALUMINUM**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 331522 Nonferrous (except Aluminum) Die-Casting Foundries;
2. 331525 Copper Foundries (except Die-Casting); and
3. 331528 Other Nonferrous Foundries (except Die-Casting).

### **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.

### **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.

### **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.

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## **332 FABRICATED METAL PRODUCT MANUFACTURING**

Industries in the Fabricated Metal Product Manufacturing subsector transform metal into intermediate or end products, other than machinery, computers and electronics, and metal furniture or treating metals and metal formed products fabricated elsewhere. Important fabricated metal processes are forging, stamping, bending, forming, and machining, used to shape individual pieces of metal; and other processes, such as welding and assembling, used to join separate parts together. Establishments in this subsector may use one of these processes or a combination of these processes.

The NAICS structure for this subsector distinguishes the forging and stamping processes in a single industry. The remaining industries, in the subsector, group establishments based on similar combinations of processes used to make products.

The manufacturing performed in the Fabricated Metal Product Manufacturing subsector begins with manufactured metal shapes. The establishments in this sector further fabricate the purchased metal shapes into a product. For instance, the Spring and Wire Product Manufacturing industry starts with wire and fabricates such items.

Within manufacturing there are other establishments that make the same products made by this subsector; only these establishments begin production further back in the production process. These establishments have a more integrated operation. For instance, one establishment may manufacture steel, draw it into wire, and make wire products in the same establishment. Such operations are classified in the Primary Metal Manufacturing subsector.

### **3321 FORGING AND STAMPING**

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

1. Manufacturing forgings from purchased metals;
2. Manufacturing metal custom roll forming products;
3. Manufacturing metal stamped and spun products (except automotive, cans, and coins); and
4. Manufacturing powder metallurgy products.

Establishments making metal forgings, metal stampings, and metal spun products and further manufacturing (e.g., machining and assembling) a specific manufactured product are classified in the industry of the finished product. Metal forging, metal stamping, and metal spun products establishments may perform surface finishing operations, such as cleaning and deburring, on the products they manufacture.

#### **33211 FORGING AND STAMPING**

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

1. manufacturing forgings from purchased metals;
2. manufacturing metal custom roll forming products;
3. manufacturing metal stamped and spun products (except automotive, cans, and coins); and
4. manufacturing powder metallurgy products.

Establishments making metal forgings, metal stampings, and metal spun products and further manufacturing (e.g., machining and assembling) a specific manufactured product are classified in the industry of the finished product. Metal forging, metal stamping, and metal spun products establishments may perform surface finishing operations, such as cleaning and deburring, on the products they manufacture.

#### **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.

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### **332117 POWDER METALLURGY PART MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing powder metallurgy products by compacting them in a shaped die and sintering. Establishments in this industry generally make a wide range of parts on a job or order basis.

### **33211N FORGING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332111 Iron and Steel Forging and
2. 332112 Nonferrous Forging.

#### **332111 Iron and Steel Forging**

This U.S. industry comprises establishments primarily engaged in manufacturing iron and steel forgings from purchased iron and steel by hammering mill shapes. Establishments making iron and steel forgings and further manufacturing (e.g., machining, assembling) a specific manufactured product are classified in the industry of the finished product. Iron and steel forging establishments may perform surface finishing operations, such as cleaning and deburring, on the forgings they manufacture.

#### **332112 Nonferrous Forging**

This U.S. industry comprises establishments primarily engaged in manufacturing nonferrous forgings from purchased nonferrous metals by hammering mill shapes. Establishments making nonferrous forgings and further manufacturing (e.g., machining, assembling) a specific manufactured product are classified in the industry of the finished product. Nonferrous forging establishments may perform surface finishing operations, such as cleaning and deburring, on the forgings they manufacture.

### **33211P CROWN, CLOSURE, AND METAL STAMPING MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332115 Crown and Closure Manufacturing and
2. 332116 Metal Stamping.

#### **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.

### **3322 CUTLERY AND HANDTOOL MANUFACTURING**

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

1. Manufacturing nonprecious and precious plated metal cutlery and flatware;
2. Manufacturing nonpowered hand and edge tools;
3. Manufacturing nonpowered handsaws;
4. Manufacturing saw blades, all types (including those for sawing machines); and
5. Manufacturing metal kitchen utensils (except cutting-type) and pots and pans (except those manufactured by casting (e.g., cast iron skillets) or stamped without further fabrication).

### **33221 CUTLERY AND HANDTOOL MANUFACTURING**

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

- 
1. manufacturing nonprecious and precious plated metal cutlery and flatware;
  2. manufacturing nonpowered hand and edge tools;
  3. manufacturing nonpowered handsaws;
  4. manufacturing saw blades, all types (including those for sawing machines); and
  5. manufacturing metal kitchen utensils (except cutting-type) and pots and pans (except those manufactured by casting (e.g., cast iron skillets) or stamped without further fabrication).

### **33221N CUTLERY, KITCHEN UTENSIL, POT, AND PAN MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332211 Cutlery and Flatware (except Precious) Manufacturing and
2. 332214 Kitchen Utensil, Pot, and Pan Manufacturing.

#### **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.

#### **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).

### **33221P HAND TOOL AND SAW BLADE MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332212 Hand and Edge Tool Manufacturing and
2. 332213 Saw Blade and Handsaw Manufacturing.

#### **332212 Hand and Edge Tool Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing nonpowered hand and edge tools (except saws).

#### **332213 Saw Blade and Handsaw Manufacturing**

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

1. manufacturing nonpowered handsaws and/or
2. manufacturing saw blades, all types (including those for power sawing machines).

### **3323 ARCHITECTURAL AND STRUCTURAL METALS MANUFACTURING**

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

1. Plate work and fabricated structural product manufacturing and
2. Ornamental and architectural metal products manufacturing.

#### **33231 PLATE WORK AND FABRICATED STRUCTURAL PRODUCT MANUFACTURING**

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

1. prefabricated metal buildings, panels and sections;

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2. structural metal products; and
  3. metal plate work products.

### **33231M PLATE WORK AND FABRICATED STRUCTURAL PRODUCT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332311 Prefabricated Metal Building and Component Manufacturing;
2. 332312 Fabricated Structural Metal Manufacturing; and
3. 332313 Plate Work Manufacturing.

#### **332311 Prefabricated Metal Building and Component Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing prefabricated metal buildings, panels, and sections.

#### **332312 Fabricated Structural Metal Manufacturing**

This U.S. industry comprises establishments primarily engaged in fabricating structural metal products, such as concrete reinforcing bars and fabricated bar joists.

#### **332313 Plate Work Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated metal plate work by cutting, punching, bending, shaping, and welding purchased metal plate.

### **33232 ORNAMENTAL AND ARCHITECTURAL METAL PRODUCTS MANUFACTURING**

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

1. metal framed windows (i.e., typically using purchased glass) and metal doors;
2. sheet metal work; and
3. ornamental and architectural metal products.

### **33232M ORNAMENTAL AND ARCHITECTURAL METAL WORK MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332321 Metal Window and Door Manufacturing;
2. 332322 Sheet Metal Work Manufacturing; and
3. 332323 Ornamental and Architectural Metal Work Manufacturing.

#### **332321 Metal Window and Door Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing metal framed windows (typically using purchased glass) and metal doors. Examples of products made by these establishments are: metal door frames; metal framed window and door screens; and metal molding and trim (except automotive).

#### **332322 Sheet Metal Work Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing sheet metal work (except stampings).



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### **332323 Ornamental and Architectural Metal Work Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing ornamental and architectural metal work, such as staircases, metal open steel flooring, fire escapes, railings, and scaffolding.

### **3324 BOILER, TANK, AND SHIPPING CONTAINER MANUFACTURING**

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

1. Power boiler and heat exchanger manufacturing;
2. Metal tank (heavy gauge) manufacturing; and
3. Metal can, box, and other metal container (light gauge) manufacturing.

### **33241 POWER BOILER AND HEAT EXCHANGER MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing power boilers and heat exchangers. Establishments in this industry may perform installation in addition to manufacturing power boilers and heat exchangers.

### **332410 POWER BOILER AND HEAT EXCHANGER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing power boilers and heat exchangers. Establishments in this industry may perform installation in addition to manufacturing power boilers and heat exchangers.

### **33242 METAL TANK (HEAVY GAUGE) MANUFACTURING**

This industry comprises establishments primarily engaged in cutting, forming, and joining heavy gauge metal to manufacture tanks, vessels, and other containers.

### **332420 METAL TANK (HEAVY GAUGE) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in cutting, forming, and joining heavy gauge metal to manufacture tanks, vessels, and other containers.

### **33243 METAL CAN, BOX, AND OTHER METAL CONTAINER (LIGHT GAUGE) MANUFACTURING**

This industry comprises establishments primarily engaged in forming light gauge metal containers.

### **33243M METAL CAN, BOX, AND OTHER METAL CONTAINER (LIGHT GAUGE) MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332431 Metal Can Manufacturing and
2. 332439 Other Metal Container Manufacturing.

### **332431 Metal Can Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing metal cans, lids, and ends.

### **332439 Other Metal Container Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing metal (light gauge) containers (except cans).

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### **3325 HARDWARE MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated and time locks).

#### **33251 HARDWARE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated and time locks).

#### **332510 HARDWARE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated and time locks).

#### **3326 SPRING AND WIRE PRODUCT MANUFACTURING**

This industry group comprises establishments primarily engaged in:

1. Manufacturing steel springs by forming, such as cutting, bending, and heat winding, metal rod or strip stock, and/or
2. Manufacturing wire springs and fabricated wire products from wire drawn elsewhere (except watch and clock springs).

#### **33261 SPRING AND WIRE PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. manufacturing steel springs by forming, such as cutting, bending, and heat winding, metal rod or strip stock, and/or
2. manufacturing wire springs and fabricated wire products from wire drawn elsewhere (except watch and clock springs).

#### **33261M SPRING AND WIRE PRODUCT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332611 Spring (Heavy Gauge) Manufacturing;
2. 332612 Spring (Light Gauge) Manufacturing; and
3. 332618 Other Fabricated Wire Product Manufacturing.

#### **332611 Spring (Heavy Gauge) Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing heavy gauge springs by forming, such as cutting, bending, and heat winding, rod or strip stock.

#### **332612 Spring (Light Gauge) Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing light gauge springs from purchased wire or strip.

#### **332618 Other Fabricated Wire Product Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated wire products (except springs) made from purchased wire.

### **3327 MACHINE SHOPS; TURNED PRODUCT; AND SCREW, NUT, AND BOLT MANUFACTURING**

This industry group comprises establishments primarily engaged in:

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1. Machine shops and/or
  2. Turned product and screw, nut, and bolt manufacturing.

### **33271 MACHINE SHOPS**

This industry comprises establishments primarily engaged in machining metal parts on a job or order basis (known as machine shops). Generally machine shop jobs are low volume using machine tools, such as lathes (including computer numerically controlled); automatic screw machines; and machines for boring, grinding, and milling.

#### **332710 MACHINE SHOPS**

This U.S. industry comprises establishments primarily engaged in machining metal parts on a job or order basis (known as machine shops). Generally machine shop jobs are low volume using machine tools, such as lathes (including computer numerically controlled); automatic screw machines; and machines for boring, grinding, and milling.

### **33272 TURNED PRODUCT AND SCREW, NUT, AND BOLT MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. machining precision turned products or
2. manufacturing metal bolts, nuts, screws, rivets, and other industrial fasteners.

Included in this industry are establishments primarily engaged in manufacturing parts for machinery and equipment on a customized basis.

#### **332721 PRECISION TURNED PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in machining precision products of all materials on a job or order basis (known as precision turned manufacturers). Generally precision turned product jobs are large volume using machines, such as automatic screw machines, rotary transfer machines, computer numerically controlled (CNC) lathes, or turning centers.

#### **332722 BOLT, NUT, SCREW, RIVET, AND WASHER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal bolts, nuts, screws, rivets, washers, and other industrial fasteners using machines, such as headers, threaders, and nut forming machines.

### **3328 COATING, ENGRAVING, HEAT TREATING, AND ALLIED ACTIVITIES**

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

1. Heat treating metals and metal products;
2. Enameling, lacquering, and varnishing metals and metal products;
3. Hot dip galvanizing metals and metal products;
4. Engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates);
5. Powder coating metals and metal products;
6. Electroplating, plating, anodizing, coloring, and finishing metals and metal products; and
7. Providing other metal surfacing services for the trade.

Included in this industry are establishments that coat engravings and heat treat metals and metal formed products fabricated elsewhere.

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## **33281 COATING, ENGRAVING, HEAT TREATING, AND ALLIED ACTIVITIES**

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

1. heat treating metals and metal products;
2. enameling, lacquering, and varnishing metals and metal products;
3. hot dip galvanizing metals and metal products;
4. engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates);
5. powder coating metals and metal products;
6. electroplating, plating, anodizing, coloring, and finishing metals and metal products; and
7. providing other metal surfacing services for the trade.

Included in this industry are establishments that coat engravings and heat treat metals and metal formed products fabricated elsewhere.

### **33281M COATING, ENGRAVING, HEAT TREATING, AND ALLIED ACTIVITIES**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332811 Metal Heat Treating;
2. 332812 Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers; and
3. 332813 Electroplating, Plating, Polishing, Anodizing, and Coloring.

#### **332811 Metal Heat Treating**

This U.S. industry comprises establishments primarily engaged in heat treating, such as annealing, tempering, and brazing, metals and metal products for the trade.

#### **332812 Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers**

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

1. enameling, lacquering, and varnishing metals and metal products;
2. hot dip galvanizing metals and metal products;
3. engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates);
4. powder coating metals and metal products; and
5. providing other metal surfacing services for the trade.

#### **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.

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### **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.

#### **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.

#### **33291N VALVE AND FITTING (EXCEPT PLUMBING) MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332911 Industrial Valve Manufacturing;
2. 332912 Fluid Power Valve and Hose Fitting Manufacturing; and
3. 332919 Other Metal Valve and Pipe Fitting Manufacturing.

#### **332911 Industrial Valve Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial valves and valves for water works and municipal water systems.

#### **332912 Fluid Power Valve and Hose Fitting Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power valves and hose fittings.

#### **332919 Other Metal Valve and Pipe Fitting Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing metal valves (except industrial valves, fluid power valves, fluid power hose fittings, and plumbing fixture fittings and trim).

### **33299 ALL OTHER FABRICATED METAL PRODUCT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metal products, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, nuts and bolts, and metal valves).

#### **332991 BALL AND ROLLER BEARING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing ball and roller bearings of all materials.

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### **332992 SMALL ARMS AMMUNITION MANUFACTURING**

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

### **332994 SMALL ARMS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing small firearms that are carried and fired by the individual.

### **332995 OTHER ORDNANCE AND ACCESSORIES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing ordnance (except small arms) and accessories.

### **332996 FABRICATED PIPE AND PIPE FITTING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in fabricating, such as cutting, threading, and bending metal pipes and pipe fittings made from purchased metal pipe.

### **33299N OTHER FABRICATED METAL PRODUCTS MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 332997 Industrial Pattern Manufacturing;
2. 332998 Enameled Iron and Metal Sanitary Ware Manufacturing; and
3. 332999 All Other Miscellaneous Fabricated Metal Product Manufacturing.

#### **332997 Industrial Pattern Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial patterns.

#### **332998 Enameled Iron and Metal Sanitary Ware Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing enameled iron and metal sanitary ware.

#### **332999 All Other Miscellaneous Fabricated Metal Product Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metals, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, nuts and bolts, metal valves, ball and roller bearings, ammunition, small arms and other ordnances, fabricated pipes and pipe fittings, industrial patterns, and enameled iron and metal sanitary ware).

### **333 MACHINERY MANUFACTURING**

Industries in the Machinery Manufacturing subsector create end products that apply mechanical force, for example, the application of gears and levers, to perform work. Some important processes for the manufacture of machinery are forging, stamping, bending, forming, and machining that are used to shape individual pieces of metal. Processes, such as welding and assembling are used to join separate parts together. Although these processes are similar to those used in metal

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

1. Agricultural implement manufacturing;
2. Construction machinery manufacturing; and
3. Mining and oil and gas field machinery manufacturing.

#### **33311 AGRICULTURAL IMPLEMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing farm machinery and equipment, powered mowing equipment, and other powered home lawn and garden equipment.

##### **333111 FARM MACHINERY AND EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing agricultural and farm machinery and equipment and other turf and grounds care equipment, including planting, harvesting, and grass mowing equipment (except lawn and garden-type).

##### **333112 LAWN AND GARDEN TRACTOR AND HOME LAWN AND GARDEN EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing powered lawnmowers, lawn and garden tractors, and other home lawn and garden equipment, such as tillers, shredders, and yard vacuums and blowers.

#### **33312 CONSTRUCTION MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing construction machinery, surface mining machinery, and logging equipment.

##### **333120 CONSTRUCTION MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing construction machinery, surface mining machinery, and logging equipment.

#### **33313 MINING AND OIL AND GAS FIELD MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing oil and gas field and underground mining machinery and equipment.

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### **33313M MINING AND OIL AND GAS FIELD MACHINERY MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 333131 Mining Machinery and Equipment Manufacturing and
2. 333132 Oil and Gas Field Machinery and Equipment Manufacturing.

#### **333131 Mining Machinery and Equipment Manufacturing**

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

1. manufacturing underground mining machinery and equipment, such as coal breakers, mining cars, core drills, coal cutters, and rock drills and
2. manufacturing mineral beneficiating machinery and equipment used in surface or underground mines.

#### **333132 Oil and Gas Field Machinery and Equipment Manufacturing**

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

1. manufacturing oil and gas field machinery and equipment, such as oil and gas field drilling machinery and equipment; oil and gas field production machinery and equipment; and oil and gas field derricks; and
2. manufacturing water well drilling machinery.

### **3332 INDUSTRIAL MACHINERY MANUFACTURING**

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

1. Sawmill and woodworking machinery manufacturing;
2. Plastics and rubber industry machinery manufacturing; and
3. Other industrial machinery manufacturing.

#### **33321 SAWMILL AND WOODWORKING MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing sawmill and 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.

#### **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.



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### **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).

### **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.

### **33329N OTHER MACHINERY MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 333291 Paper Industry Machinery Manufacturing;
2. 333292 Textile Machinery Manufacturing;
3. 333293 Printing Machinery and Equipment Manufacturing;
4. 333294 Food Product Machinery Manufacturing; and
5. 333298 All Other Industrial Machinery Manufacturing.

### **333291 Paper Industry Machinery Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing paper industry machinery for making paper and paper products, such as pulp making machinery, paper and paperboard making machinery, and paper and paperboard converting machinery.

### **333292 Textile Machinery Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing textile machinery for making thread, yarn, and fiber.

### **333293 Printing Machinery and Equipment Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing printing and bookbinding machinery and equipment, such as printing presses, typesetting machinery, and bindery machinery.

### **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).

### **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).

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### **3333 COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing commercial and service machinery, such as automatic vending machinery, commercial laundry and dry-cleaning machinery, office machinery, photographic and photocopying machinery, optical instruments and machinery, automotive maintenance equipment (except mechanic's handtools), industrial vacuum cleaners, and commercial-type cooking equipment.

#### **33331 COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing commercial and service machinery, such as automatic vending machinery, commercial laundry and dry-cleaning machinery, office machinery, photographic and photocopying machinery, optical instruments and machinery, automotive maintenance equipment (except mechanic's handtools), industrial vacuum cleaners, and commercial-type cooking equipment.

#### **333313 OFFICE MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing office machinery (except computers and photocopying equipment), such as mailhandling machinery and equipment, calculators, typewriters, and dedicated word processing equipment.

#### **333314 OPTICAL INSTRUMENT AND LENS MANUFACTURING**

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

1. manufacturing optical instruments and lens, such as binoculars, microscopes (except electron and proton), telescopes, prisms, and lenses (except ophthalmic);
2. coating or polishing lenses (except ophthalmic); and
3. mounting lenses (except ophthalmic).

#### **333315 PHOTOGRAPHIC AND PHOTOCOPYING EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing photographic and photocopying equipment, such as cameras (except television, video, and digital), projectors, film developing equipment, photocopying equipment, and microfilm equipment.

#### **33331N ALL OTHER COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 333311 Automatic Vending Machine Manufacturing;
2. 333312 Commercial Laundry, Drycleaning, and Pressing Machine Manufacturing; and
3. 333319 Other Commercial and Service Industry Machinery Manufacturing.

#### **333311 Automatic Vending Machine Manufacturing**

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

1. manufacturing coin, token, currency, or magnetic card operated vending machines; and/or
2. manufacturing coin operated mechanism for machines, such as vending machines, lockers, and laundry machines.

#### **333312 Commercial Laundry, Drycleaning, and Pressing Machine Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing commercial and industrial laundry and drycleaning equipment and pressing machines.

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### **333319 Other Commercial and Service Industry Machinery Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing commercial and service industry equipment (except automatic vending machines, commercial laundry, drycleaning and pressing machines, office machinery, optical instruments and lenses, and photographic and photocopying equipment).

### **3334 VENTILATION, HEATING, AIR-CONDITIONING, AND COMMERCIAL REFRIGERATION EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing ventilation, heating, air-conditioning, and commercial and industrial refrigeration and freezer equipment.

### **33341 VENTILATION, HEATING, AIR-CONDITIONING, AND COMMERCIAL REFRIGERATION EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing ventilation, heating, air-conditioning, and commercial and industrial refrigeration and freezer equipment.

### **333414 HEATING EQUIPMENT (EXCEPT WARM AIR FURNACES) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing heating equipment (except electric and warm air furnaces), such as heating boilers, heating stoves, floor and wall furnaces, and wall and baseboard heating units.

### **333415 AIR-CONDITIONING AND WARM AIR HEATING EQUIPMENT AND COMMERCIAL AND INDUSTRIAL REFRIGERATION EQUIPMENT MANUFACTURING**

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

1. manufacturing air-conditioning (except motor vehicle) and warm air furnace equipment and/or
2. manufacturing commercial and industrial refrigeration and freezer equipment.

### **33341N VENTILATION EQUIPMENT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 333411 Air Purification Equipment Manufacturing and
2. 333412 Industrial and Commercial Fan and Blower Manufacturing.

### **333411 Air Purification Equipment Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing stationary air purification equipment, such as industrial dust and fume collection equipment, electrostatic precipitation equipment, warm air furnace filters, air washers, and other dust collection equipment.

### **333412 Industrial and Commercial Fan and Blower Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing attic fans and industrial and commercial fans and blowers, such as commercial exhaust fans and commercial ventilating fans.

### **3335 METALWORKING MACHINERY MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing metalworking machinery, such as metal cutting and metal forming machine tools; cutting tools; and accessories for metalworking machinery; special dies, tools, jigs, and fixtures; industrial molds; rolling mill machinery; assembly machinery; coil handling, conversion, or straightening equipment; and wire drawing and fabricating machines.

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### **33351 METALWORKING MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing metalworking machinery, such as metal cutting and metal forming machine tools; cutting tools; and accessories for metalworking machinery; special dies, tools, jigs, and fixtures; industrial molds; rolling mill machinery; assembly machinery; coil handling, conversion, or straightening equipment; and wire drawing and fabricating machines.

#### **333511 INDUSTRIAL MOLD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial molds for casting metals or forming other materials, such as plastics, glass, or rubber.

#### **333512 MACHINE TOOL (METAL CUTTING TYPES) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal cutting machine tools (except handtools).

#### **333513 MACHINE TOOL (METAL FORMING TYPES) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal forming machine tools (except handtools), such as punching, sheering, bending, forming, pressing, forging, and die-casting machines.

#### **333514 SPECIAL DIE AND TOOL, DIE SET, JIG, AND FIXTURE MANUFACTURING**

This U.S. industry comprises establishments, known as tool and die shops, primarily engaged in manufacturing special tools and fixtures, such as cutting dies and jigs.

#### **333515 CUTTING TOOL AND MACHINE TOOL ACCESSORY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing accessories and attachments for metal cutting and metal forming machine tools.

#### **333516 ROLLING MILL MACHINERY AND EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing rolling mill machinery and equipment for metal production.

#### **333518 OTHER METALWORKING MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing metal working machinery (except industrial molds; metal cutting machine tools; metal forming machine tools; special dies and tools, die sets, jigs, and fixtures; cutting tools and machine tool accessories; and rolling mill machinery and equipment).

### **3336 ENGINE, TURBINE, AND POWER TRANSMISSION EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing turbines, power transmission equipment, and internal combustion engines (except automotive, gasoline, and aircraft).

#### **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.

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### **333612 SPEED CHANGER, INDUSTRIAL HIGH-SPEED DRIVE, AND GEAR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing gears, speed changers, and industrial high-speed drives (except hydrostatic).

### **333613 MECHANICAL POWER TRANSMISSION EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing mechanical power transmission equipment (except motor vehicle and aircraft), such as plain bearings, clutches (except motor vehicle and electromagnetic industrial control), couplings, joints, and drive chains.

### **333618 OTHER ENGINE EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing internal combustion engines (except automotive gasoline and aircraft).

### **3339 OTHER GENERAL PURPOSE MACHINERY MANUFACTURING**

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

1. Pump and compressor manufacturing;
2. Material handling equipment manufacturing; and
3. All other general purpose machinery manufacturing.

### **33391 PUMP AND COMPRESSOR MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing pumps and compressors, such as general purpose air and gas compressors, nonagricultural spraying and dusting equipment, general purpose pumps and pumping equipment (except fluid power pumps and motors), and measuring and dispensing pumps.

### **333911 PUMP AND PUMPING EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing general purpose pumps and pumping equipment (except fluid power pumps and motors), such as reciprocating pumps, turbine pumps, centrifugal pumps, rotary pumps, diaphragm pumps, domestic water system pumps, oil well and oil field pumps, and sump pumps.

### **333912 AIR AND GAS COMPRESSOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing general purpose air and gas compressors, such as reciprocating compressors, centrifugal compressors, vacuum pumps (except laboratory), and nonagricultural spraying and dusting compressors and spray gun units.

### **333913 MEASURING AND DISPENSING PUMP MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing measuring and dispensing pumps, such as gasoline pumps and lubricating oil measuring and dispensing pumps.

### **33392 MATERIAL HANDLING EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing material handling equipment, such as elevators and moving stairs; conveyors and conveying equipment; overhead traveling cranes, hoists, and monorail systems; and industrial trucks, tractors, trailers, and stacker machinery.

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## **33392M MATERIAL HANDLING EQUIPMENT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 333921 Elevator and Moving Stairway Manufacturing;
2. 333922 Conveyor and Conveying Equipment Manufacturing;
3. 333923 Overhead Traveling Crane, Hoist, and Monorail System Manufacturing; and
4. 333924 Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing.

### **333921 Elevator and Moving Stairway Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing elevators and moving stairways.

### **333922 Conveyor and Conveying Equipment Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing conveyors and conveying equipment, such as gravity conveyors, trolley conveyors, tow conveyors, pneumatic tube conveyors, carousel conveyors, farm conveyors, and belt conveyors.

### **333923 Overhead Traveling Crane, Hoist, and Monorail System Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing overhead traveling cranes, hoists, and monorail systems.

### **333924 Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial trucks, tractors, trailers, and stackers (i.e., truck-type), such as forklifts, pallet loaders and unloaders, and portable loading docks.

## **33399 ALL OTHER GENERAL PURPOSE MACHINERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing general purpose machinery (except ventilation, heating, air-conditioning, and commercial refrigeration equipment; metal working machinery; engines, turbines, and power transmission equipment; pumps and compressors; and material handling equipment).

### **333991 POWER-DRIVEN HANDTOOL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing power-driven (e.g., battery, corded, and pneumatic) handtools, such as drills, screwguns, circular saws, chain saws, staplers, and nailers.

### **333993 PACKAGING MACHINERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing packaging machinery, such as wrapping, bottling, canning, and labeling 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, and wood).

### **33399N FLUID POWER EQUIPMENT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 333995 Fluid Power Cylinder and Actuator Manufacturing and

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2. 333996 Fluid Power Pump and Motor Manufacturing.

### **333995 Fluid Power Cylinder and Actuator Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power (i.e., hydraulic and pneumatic) cylinders and actuators.

### **333996 Fluid Power Pump and Motor Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power (i.e., hydraulic and pneumatic) pumps and motors.

## **33399P ALL OTHER MISCELLANEOUS GENERAL PURPOSE MACHINERY MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 333992 Welding and Soldering Equipment Manufacturing;
2. 333997 Scale and Balance (except Laboratory) Manufacturing; and
3. 333999 All Other Miscellaneous General Purpose Machinery Manufacturing.

### **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).

### **333997 Scale and Balance (except Laboratory) Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing scales and balances (except laboratory).

### **333999 All Other Miscellaneous General Purpose Machinery Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing general purpose machinery (except ventilating, heating, air-conditioning, and commercial refrigeration equipment; metal working machinery; engines, turbines, and power transmission equipment; pumps and compressors; material handling equipment; power-driven handtools; welding and soldering equipment; packaging machinery; industrial process furnaces and ovens; fluid power cylinders and actuators; fluid power pumps and motors; and scales and balances).

## **334 COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING**

Industries in the Computer and Electronic Product Manufacturing subsector group establishments that manufacture computers, computer peripherals, communications equipment, and similar electronic products, and establishments that manufacture components for such products. The Computer and Electronic Product Manufacturing industries have been combined in the hierarchy of NAICS because of the economic significance they have attained. Their rapid growth suggests that they will become even more important to the economies of all three North American countries in the future, and in addition their manufacturing processes are fundamentally different from the manufacturing processes of other machinery and equipment. The design and use of integrated circuits and the application of highly specialized miniaturization technologies are common elements in the production technologies of the computer and electronic subsector. Convergence of technology motivates this NAICS subsector. Digitalization of sound recording, for example, causes both the medium (the compact disc) and the equipment to resemble the technologies for recording, storing, transmitting, and manipulating data. Communications technology and equipment have been converging with computer technology. When technologically-related components are in the same sector, it makes it easier to adjust the classification for future changes, without needing



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to redefine its basic structure. The creation of the Computer and Electronic Product Manufacturing subsector will assist in delineating new and emerging industries because the activities that will serve as the probable sources of new industries, such as computer manufacturing and communications equipment manufacturing, or computers and audio equipment, are brought together. As new activities emerge, they are less likely therefore, to cross the subsector boundaries of the classification.

### **3341 COMPUTER AND PERIPHERAL EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, input/output devices and terminals. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following:

1. Store the processing program or programs and the data immediately necessary for the execution of the program;
2. Can be freely programmed in accordance with the requirements of the user;
3. Perform arithmetical computations specified by the user; and
4. Execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run.

Analog computers are capable of simulating mathematical models and comprise at least analog, control, and programming elements.

### **33411 COMPUTER AND PERIPHERAL EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, input/output devices and terminals. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following:

1. store the processing program or programs and the data immediately necessary for the execution of the program;
2. can be freely programmed in accordance with the requirements of the user;
3. perform arithmetical computations specified by the user; and
4. execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run.

Analog computers are capable of simulating mathematical models and comprise at least analog, control, and programming elements.

### **334111 ELECTRONIC COMPUTER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following:

1. store the processing program or programs and the data immediately necessary for the execution of the program;
2. can be freely programmed in accordance with the requirements of the user;
3. perform arithmetical computations specified by the user; and
4. execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run.



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Analog computers are capable of simulating mathematical models and contain at least analog, control, and programming elements. The manufacture of computers includes the assembly or integration of processors, coprocessors, memory, storage, and input/output devices into a user-programmable final product.

### **334112 COMPUTER STORAGE DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, optical, or magnetic/optical media. Examples of products made by these establishments are CD-ROM drives, floppy disk drives, hard disk drives, and tape storage and backup units.

### **334113 COMPUTER TERMINAL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing computer terminals. Computer terminals are input/output devices that connect with a central computer for processing.

### **334119 OTHER COMPUTER PERIPHERAL EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing computer peripheral equipment (except storage devices and computer terminals).

### **3342 COMMUNICATIONS EQUIPMENT MANUFACTURING**

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

1. Telephone apparatus manufacturing;
2. Radio and television broadcasting and wireless communications equipment manufacturing;  
and
3. Other communications equipment manufacturing.

### **33421 TELEPHONE APPARATUS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be standalone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, LAN modems, multi-user modems, and other data communications equipment, such as bridges, routers, and gateways.

### **334210 TELEPHONE APPARATUS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be stand-alone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, and data communications equipment, such as bridges, routers, and gateways.

### **33422 RADIO AND TELEVISION BROADCASTING AND WIRELESS COMMUNICATIONS EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.

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### **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.

### **33429 OTHER COMMUNICATIONS EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, and radio and television broadcast, and wireless communications equipment).

### **334290 OTHER COMMUNICATIONS EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, radio and television broadcast, and wireless communications equipment).

### **3343 AUDIO AND VIDEO EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

### **33431 AUDIO AND VIDEO EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

### **334310 AUDIO AND VIDEO EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

### **3344 SEMICONDUCTOR AND OTHER ELECTRONIC COMPONENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing semiconductors and other components for electronic applications. Examples of products made by these establishments are capacitors, resistors, microprocessors, bare and loaded printed circuit boards, electron tubes, electronic connectors, and computer modems.

### **33441 SEMICONDUCTOR AND OTHER ELECTRONIC COMPONENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing semiconductors and other components for electronic applications. Examples of products made by these establishments are capacitors, resistors, microprocessors, bare and loaded printed circuit boards, electron tubes, electronic connectors, and computer modems.

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### **334411 ELECTRON TUBE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electron tubes and parts (except glass blanks). Examples of products made by these establishments are cathode ray tubes (i.e., picture tubes), klystron tubes, magnetron tubes, and traveling wave tubes.

### **334412 BARE PRINTED CIRCUIT BOARD MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing bare (i.e., rigid or flexible) printed circuit boards without mounted electronic components. These establishments print, perforate, plate, screen, etch, or photoprint interconnecting pathways for electric current on laminates.

### **334413 SEMICONDUCTOR AND RELATED DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing semiconductors and related solid state devices. Examples of products made by these establishments are integrated circuits, memory chips, microprocessors, diodes, transistors, solar cells and other optoelectronic devices.

### **334414 ELECTRONIC CAPACITOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic fixed and variable capacitors and condensers.

### **334415 ELECTRONIC RESISTOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic resistors, such as fixed and variable resistors, resistor networks, thermistors, and varistors.

### **334416 ELECTRONIC COIL, TRANSFORMER, AND OTHER INDUCTOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic inductors, such as coils and transformers.

### **334417 ELECTRONIC CONNECTOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic connectors, such as coaxial; cylindrical; rack and panel; pin and sleeve; printed circuit; and fiber optic.

### **334418 PRINTED CIRCUIT ASSEMBLY (ELECTRONIC ASSEMBLY) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in loading components onto printed circuit boards or who manufacture and ship loaded printed circuit boards. Also known as printed circuit assemblies, electronics assemblies, or modules, these products are printed circuit boards that have some or all of the semiconductor and electronic components inserted or mounted and are inputs to a wide variety of electronic systems and devices.

### **334419 OTHER ELECTRONIC COMPONENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electronic components (except electron tubes; bare printed circuit boards; semiconductors and related devices; electronic capacitors; electronic resistors; coils, transformers, and other inductors; connectors; and loaded printed circuit boards).

### **3345 NAVIGATIONAL, MEASURING, ELECTROMEDICAL, AND CONTROL INSTRUMENTS MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments, navigation and guidance systems, and physical properties testing equipment.

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### **33451 NAVIGATIONAL, MEASURING, ELECTROMEDICAL, AND CONTROL INSTRUMENTS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments, navigation and guidance systems, and physical properties testing equipment.

### **334510 ELECTROMEDICAL AND ELECTROTHERAPEUTIC APPARATUS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electromedical and electrotherapeutic apparatus, such as magnetic resonance imaging equipment, medical ultrasound equipment, pacemakers, hearing aids, electrocardiographs, and electromedical endoscopic equipment.

### **334511 SEARCH, DETECTION, NAVIGATION, GUIDANCE, AERONAUTICAL, AND NAUTICAL SYSTEM AND INSTRUMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing search, detection, navigation, guidance, aeronautical, and nautical systems and instruments. Examples of products made by these establishments are aircraft instruments (except engine), flight recorders, navigational instruments and systems, radar systems and equipment, and sonar systems and equipment.

### **334512 AUTOMATIC ENVIRONMENTAL CONTROL MANUFACTURING FOR RESIDENTIAL, COMMERCIAL, AND APPLIANCE USE**

This U.S. industry comprises establishments primarily engaged in manufacturing automatic controls and regulators for applications, such as heating, air-conditioning, refrigeration, and appliances.

### **334513 INSTRUMENTS AND RELATED PRODUCTS MANUFACTURING FOR MEASURING, DISPLAYING, AND CONTROLLING INDUSTRIAL PROCESS VARIABLES**

This U.S. industry comprises establishments primarily engaged in manufacturing instruments and related devices for measuring, displaying, indicating, recording, transmitting, and controlling industrial process variables. These instruments measure, display, or control (i.e., monitor and analyze) industrial process variables, such as temperature, humidity, pressure, vacuum, combustion, flow, level, viscosity, density, acidity, concentration, and rotation.

### **334514 TOTALIZING FLUID METER AND COUNTING DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing totalizing (i.e., registering) fluid meters and counting devices. Examples of products made by these establishments are gas consumption meters, water consumption meters, parking meters, taxi meters, motor vehicle gauges, and fare collection equipment.

### **334515 INSTRUMENT MANUFACTURING FOR MEASURING AND TESTING ELECTRICITY AND ELECTRICAL SIGNALS**

This U.S. industry comprises establishments primarily engaged in manufacturing instruments for measuring and testing the characteristics of electricity and electrical signals. Examples of products made by these establishments are circuit and continuity testers, volt meters, ohm meters, wattmeters, multimeters, and semiconductor test equipment.

### **334516 ANALYTICAL LABORATORY INSTRUMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing instruments and instrumentation systems for laboratory analysis of the chemical or physical composition or concentration of samples of solid, fluid, gaseous, or composite material.

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### **334517 IRRADIATION APPARATUS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing irradiation apparatus and tubes for applications, such as medical diagnostic, medical therapeutic, industrial, and research and scientific evaluation. Irradiation can take the form of beta-rays, gamma-rays, X-rays, or other ionizing radiation.

### **334518 WATCH, CLOCK, AND PART MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or assembling: clocks; watches; timing mechanisms for clockwork operated devices; time clocks; time and date recording devices; and clock and watch parts (except crystals), such as springs, jewels, and modules.

### **334519 OTHER MEASURING AND CONTROLLING DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing measuring and controlling devices (except search, detection, navigation, guidance, aeronautical, and nautical instruments and systems; automatic environmental controls for residential, commercial, and appliance use; instruments for measurement, display, and control of industrial process variables; totalizing fluid meters and counting devices; instruments for measuring and testing electricity and electrical signals; analytical laboratory instruments; watches, clocks, and parts; irradiation equipment; and electromedical and electrotherapeutic apparatus).

### **3346 MANUFACTURING AND REPRODUCING MAGNETIC AND OPTICAL MEDIA**

This industry group comprises establishments primarily engaged in:

1. Manufacturing optical and magnetic media, such as blank audio tape, blank video tape, and blank diskettes and/or
2. Mass duplicating (i.e., making copies) audio, video, software, and other data on magnetic, optical, and similar media.

### **33461 MANUFACTURING AND REPRODUCING MAGNETIC AND OPTICAL MEDIA**

This industry comprises establishments primarily engaged in:

1. manufacturing optical and magnetic media, such as blank audio tape, blank video tape, and blank diskettes and/or;
2. mass duplicating (i.e., making copies) audio, video, software, and other data on magnetic, optical, and similar media.

### **334611 SOFTWARE REPRODUCING**

This U.S. industry comprises establishments primarily engaged in mass reproducing computer software. These establishments do not generally develop any software, they mass reproduce data and programs on magnetic media, such as diskettes, tapes, or cartridges. Establishments in this industry mass reproduce products, such as CD-ROMs and game cartridges.

### **334612 PRERECORDED COMPACT DISC (EXCEPT SOFTWARE), TAPE, AND RECORD REPRODUCING**

This U.S. industry comprises establishments primarily engaged in mass reproducing audio and video material on magnetic or optical media. Examples of products mass reproduced by these establishments are audio compact discs, prerecorded audio and video cassettes, and laser discs.

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### **334613 MAGNETIC AND OPTICAL RECORDING MEDIA MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing magnetic and optical recording media, such as blank magnetic tape, blank diskettes, blank optical discs, hard drive media, and blank magnetic tape cassettes.

### **335 ELECTRICAL EQUIPMENT, APPLIANCE, AND COMPONENT MANUFACTURING**

Industries in the Electrical Equipment, Appliance, and Component Manufacturing subsector manufacture products that generate, distribute and use electrical power. Electric Lighting Equipment Manufacturing establishments produce electric lamp bulbs, lighting fixtures, and parts. Household Appliance Manufacturing establishments make both small and major electrical appliances and parts. Electrical Equipment Manufacturing establishments make goods, such as electric motors, generators, transformers, and switchgear apparatus. Other Electrical Equipment and Component Manufacturing establishments make devices for storing electrical power (e.g., batteries), for transmitting electricity (e.g., insulated wire), and wiring devices (e.g., electrical outlets, fuse boxes, and light switches).

### **3351 ELECTRIC LIGHTING EQUIPMENT MANUFACTURING**

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

1. Electric lamp bulb and part manufacturing and/or
2. Lighting fixture manufacturing.

### **33511 ELECTRIC LAMP BULB AND PART MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing electric light bulbs and tubes, and parts and components (except glass blanks for electric light bulbs).

### **335110 ELECTRIC LAMP BULB AND PART MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electric light bulbs and tubes, and parts and components (except glass blanks for electric light bulbs).

### **33512 LIGHTING FIXTURE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing electric lighting fixtures (except vehicular), nonelectric lighting equipment, lamp shades (except glass and plastics), and lighting fixture components (except current-carrying wiring devices).

### **33512M LIGHTING FIXTURE MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 335121 Residential Electric Lighting Fixture Manufacturing;
2. 335122 Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing; and
3. 335129 Other Lighting Equipment Manufacturing.

### **335121 Residential Electric Lighting Fixture Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing fixed or portable residential electric lighting fixtures and lamp shades of metal, paper, or textiles. Residential electric lighting fixtures include those for use both inside and outside the residence.

### **335122 Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing commercial, industrial, and institutional electric lighting fixtures.

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### **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.

### **3352 HOUSEHOLD APPLIANCE MANUFACTURING**

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

1. Small electrical appliance manufacturing and/or
2. Major appliance manufacturing.

### **33521 SMALL ELECTRICAL APPLIANCE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing small electric appliances and electric housewares, household-type fans, household-type vacuum cleaners, and other electric household-type floor care machines.

### **33521M SMALL ELECTRICAL APPLIANCE MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 335211 Electric Housewares and Household Fan Manufacturing and
2. 335212 Household Vacuum Cleaner Manufacturing.

### **335211 Electric Housewares and Household Fan Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing small electric appliances and electric housewares for heating, cooking, and other purposes, and electric household-type fans (except attic fans).

### **335212 Household Vacuum Cleaner Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing electric vacuum cleaners, electric floor waxing machines, and other electric floor care machines typically for household use.

### **33522 MAJOR APPLIANCE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing household-type cooking appliances, household-type laundry equipment, household-type refrigerators, upright and chest freezers, and other electrical and nonelectrical major household-type appliances, such as dishwashers, water heaters, and garbage disposal units.

### **335221 HOUSEHOLD COOKING APPLIANCE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing household-type electric and nonelectric cooking equipment (except small electric appliances and electric housewares).

### **335222 HOUSEHOLD REFRIGERATOR AND HOME FREEZER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing household-type refrigerators and upright and chest freezers.

### **335224 HOUSEHOLD LAUNDRY EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing household-type laundry equipment.



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### **335228 OTHER MAJOR HOUSEHOLD APPLIANCE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electric and non-electric major household-type appliances (except cooking equipment, refrigerators, upright and chest freezers, and household-type laundry equipment).

### **3353 ELECTRICAL EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers; electric motors, generators, and motor generator sets; switchgear and switchboard apparatus; relays; and industrial controls.

### **33531 ELECTRICAL EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers; electric motors, generators, and motor generator sets; switchgear and switchboard apparatus; relays; and industrial controls.

### **335311 POWER, DISTRIBUTION, AND SPECIALTY TRANSFORMER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers (except electronic components). Industrial-type and consumer-type transformers in this industry vary (e.g., step up or step down) voltage but do not convert alternating to direct or direct to alternating current.

### **335312 MOTOR AND GENERATOR MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing electric motors (except internal combustion engine starting motors), power generators (except battery charging alternators for internal combustion engines), and motor generator sets (except turbine generator set units). This industry includes establishments rewinding armatures on a factory basis.

### **335313 SWITCHGEAR AND SWITCHBOARD APPARATUS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing switchgear and switchboard apparatus.

### **335314 RELAY AND INDUSTRIAL CONTROL MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing relays, motor starters and controllers, and other industrial controls and control accessories.

### **3359 OTHER ELECTRICAL EQUIPMENT AND COMPONENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing electrical equipment and components (except electric lighting equipment, household-type appliances, transformers, switchgear, relays, motors, and generators).

### **33591 BATTERY MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing primary and storage batteries.

### **335911 STORAGE BATTERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing storage batteries.

### **335912 PRIMARY BATTERY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wet or dry primary batteries.



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## **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.

### **33592M COMMUNICATION AND ENERGY WIRE AND CABLE MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 335921 Fiber Optic Cable Manufacturing and
2. 335929 Other Communication and Energy Wire Manufacturing.

#### **335921 Fiber Optic Cable Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing insulated fiber-optic cable from purchased fiber-optic strand.

#### **335929 Other Communication and Energy Wire Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing insulated wire and cable of nonferrous metals from purchased wire.

## **33593 WIRING DEVICE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing current-carrying wiring devices and noncurrent-carrying wiring devices for wiring electrical circuits.

### **33593M WIRING DEVICE MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 335931 Current-Carrying Wiring Device Manufacturing and
2. 335932 Noncurrent-Carrying Wiring Device Manufacturing.

#### **335931 Current-Carrying Wiring Device Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing current-carrying wiring devices.

#### **335932 Noncurrent-Carrying Wiring Device Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing noncurrent-carrying wiring devices.

## **33599 ALL OTHER ELECTRICAL EQUIPMENT AND COMPONENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing electrical equipment (except electric lighting equipment, household-type appliances, transformers, motors, generators, switchgear, relays, industrial controls, batteries, communication and energy wire and cable, and wiring devices).

### **335991 CARBON AND GRAPHITE PRODUCT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing carbon, graphite, and metal-graphite brushes and brush stock; carbon or graphite electrodes for thermal and electrolytic uses; carbon and graphite fibers; and other carbon, graphite, and metal-graphite products.

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### **335999 ALL OTHER MISCELLANEOUS ELECTRICAL EQUIPMENT AND COMPONENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing industrial and commercial electric apparatus and other equipment (except lighting equipment, household appliances, transformers, motors, generators, switchgear, relays, industrial controls, batteries, communication and energy wire and cable, wiring devices, and carbon and graphite products). This industry includes power converters (i.e., AC to DC and DC to AC), power supplies, surge suppressors, and similar equipment for industrial-type and consumer-type equipment.

### **336 TRANSPORTATION EQUIPMENT MANUFACTURING**

Industries in the Transportation Equipment Manufacturing subsector produce equipment for transporting people and goods. Transportation equipment is a type of machinery. An entire subsector is devoted to this activity because of the significance of its economic size in all three North American countries.

Establishments in this subsector utilize production processes similar to those of other machinery manufacturing establishments - bending, forming, welding, machining, and assembling metal or plastic parts into components and finished products. However, the assembly of components and subassemblies and their further assembly into finished vehicles tends to be a more common production process in this subsector than in the Machinery Manufacturing subsector.

NAICS has industry groups for the manufacture of equipment for each mode of transport - road, rail, air and water. Parts for motor vehicles warrant a separate industry group because of their importance and because parts manufacture requires less assembly, and the establishments that manufacture only parts are not as vertically integrated as those that make complete vehicles.

Land use motor vehicle equipment not designed for highway operation (e.g., agricultural equipment, construction equipment, and materials handling equipment) is classified in the appropriate NAICS subsector based on the type and use of the equipment.

### **3361 MOTOR VEHICLE MANUFACTURING**

This industry group comprises establishments primarily engaged in:

1. Automobile and light duty motor vehicle manufacturing and/or
2. Heavy duty truck manufacturing.

### **33611 AUTOMOBILE AND LIGHT DUTY MOTOR VEHICLE MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. manufacturing complete automobile and light duty motor vehicles (i.e., body and chassis or unibody) or
2. manufacturing chassis only.

### **336111 AUTOMOBILE MANUFACTURING**

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

1. manufacturing complete automobiles (i.e., body and chassis or unibody) or
2. manufacturing automobile chassis only.

### **336112 LIGHT TRUCK AND UTILITY VEHICLE MANUFACTURING**

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

1. manufacturing complete light trucks and utility vehicles (i.e., body and chassis) or
2. manufacturing light truck and utility vehicle chassis only.

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Vehicles made include light duty vans, pick-up trucks, minivans, and sport utility vehicles.

### **33612 HEAVY DUTY TRUCK MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. manufacturing heavy duty truck chassis and assembling complete heavy duty trucks, buses, heavy duty motor homes, and other special purpose heavy duty motor vehicles for highway use or
2. manufacturing heavy duty truck chassis only.

### **336120 HEAVY DUTY TRUCK MANUFACTURING**

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

1. manufacturing heavy duty truck chassis and assembling complete heavy duty trucks, buses, heavy duty motor homes, and other special purpose heavy duty motor vehicles for highway use or
2. manufacturing heavy duty truck chassis only.

### **3362 MOTOR VEHICLE BODY AND TRAILER MANUFACTURING**

This industry group comprises establishments primarily engaged in:

1. Manufacturing motor vehicle bodies and cabs or
2. Manufacturing truck, automobile and utility trailers, truck trailer chassis, detachable trailer bodies, and detachable trailer chassis.

The products made may be sold separately or may be assembled on purchased chassis and sold as complete vehicles.

Motor homes are units where the motor and the living quarters are contained in the same integrated unit, while travel trailers are designed to be towed by a motor unit, such as an automobile or a light truck.

### **33621 MOTOR VEHICLE BODY AND TRAILER MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. manufacturing motor vehicle bodies and cabs or
2. manufacturing truck, automobile and utility trailers, truck trailer chassis, detachable trailer bodies, and detachable trailer chassis.

The products made may be sold separately or may be assembled on purchased chassis and sold as complete vehicles.

Motor homes are units where the motor and the living quarters are contained in the same integrated unit, while travel trailers are designed to be towed by a motor unit, such as an automobile or a light truck.

### **336211 MOTOR VEHICLE BODY MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing truck and bus bodies and cabs and automobile bodies. The products made may be sold separately or may be assembled on purchased chassis and sold as complete vehicles.

### **336212 TRUCK TRAILER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing truck trailers, truck trailer chassis, cargo container chassis, detachable trailer bodies, and detachable trailer chassis for sale separately.

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### **336213 MOTOR HOME MANUFACTURING**

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

1. manufacturing motor homes on purchased chassis and/or
2. manufacturing conversion vans on an assembly line basis.

Motor homes are units where the motor and the living quarters are integrated in the same unit.

### **336214 TRAVEL TRAILER AND CAMPER MANUFACTURING**

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

1. manufacturing travel trailers and campers designed to attach to motor vehicles;
2. manufacturing pickup coaches (i.e., campers) and caps (i.e., covers) for mounting on pickup trucks; and
3. manufacturing automobile, utility, and light-truck trailers.

Travel trailers do not have their own motor but are designed to be towed by a motor unit, such as an automobile or a light truck.

### **3363 MOTOR VEHICLE PARTS MANUFACTURING**

This industry group comprises establishments primarily engaged in:

1. Motor vehicle gasoline engine and engine parts manufacturing;
2. Motor vehicle electrical and electronic equipment manufacturing;
3. Motor vehicle steering and suspension components (except spring) manufacturing;
4. Motor vehicle brake system manufacturing;
5. Motor vehicle transmission and power train parts manufacturing;
6. Motor vehicle seating and interior trim manufacturing;
7. Motor vehicle metal stamping; and/or
8. Other motor vehicle parts manufacturing.

### **33631 MOTOR VEHICLE GASOLINE ENGINE AND ENGINE PARTS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle gasoline engines, and engine parts, whether or not for vehicular use.

### **33631M MOTOR VEHICLE GASOLINE ENGINE AND ENGINE PARTS MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 336311 Carburetor, Piston, Piston Ring, and Valve Manufacturing and
2. 336312 Gasoline Engine and Engine Parts Manufacturing.

### **336311 Carburetor, Piston, Piston Ring, and Valve Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding carburetors, pistons, piston rings, and engine intake and exhaust valves.

### **336312 Gasoline Engine and Engine Parts Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding gasoline motor vehicle engines and gasoline motor vehicle engine parts, excluding carburetors, pistons, piston rings, and valves.

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### **33632 MOTOR VEHICLE ELECTRICAL AND ELECTRONIC EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in:

1. manufacturing vehicular lighting and/or
2. manufacturing and/or rebuilding motor vehicle electrical and electronic equipment.

The products made can be used for all types of transportation equipment (i.e., aircraft, automobiles, trains, and ships).

### **33632M MOTOR VEHICLE ELECTRICAL AND ELECTRONIC EQUIPMENT MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 336321 Vehicular Lighting Equipment Manufacturing and
2. 336322 Other Motor Vehicle Electrical and Electronic Equipment Manufacturing.

### **336321 Vehicular Lighting Equipment Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing vehicular lighting fixtures.

### **336322 Other Motor Vehicle Electrical and Electronic Equipment Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding electrical and electronic equipment for motor vehicles and internal combustion engines.

### **33633 MOTOR VEHICLE STEERING AND SUSPENSION COMPONENTS (EXCEPT SPRING) MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle steering mechanisms and suspension components (except springs).

### **336330 MOTOR VEHICLE STEERING AND SUSPENSION COMPONENTS (EXCEPT SPRING) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle steering mechanisms and suspension components (except springs).

### **33634 MOTOR VEHICLE BRAKE SYSTEM MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle brake systems and related components.

### **336340 MOTOR VEHICLE BRAKE SYSTEM MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle brake systems and related components.

### **33635 MOTOR VEHICLE TRANSMISSION AND POWER TRAIN PARTS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle transmission and power train parts.

### **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.

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### **33636 MOTOR VEHICLE SEATING AND INTERIOR TRIM MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing motor vehicle seating, seats, seat frames, seat belts, and interior trimmings.

### **336360 MOTOR VEHICLE SEATING AND INTERIOR TRIM MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing motor vehicle seating, seats, seat frames, seat belts, and interior trimmings.

### **33637 MOTOR VEHICLE METAL STAMPING**

This industry comprises establishments primarily engaged in manufacturing motor vehicle stampings, such as fenders, tops, body parts, trim, and molding.

### **336370 MOTOR VEHICLE METAL STAMPING**

This U.S. industry comprises establishments primarily engaged in manufacturing motor vehicle stampings, such as fenders, tops, body parts, trim, and molding.

### **33639 OTHER MOTOR VEHICLE PARTS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle parts and accessories (except motor vehicle gasoline engines and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, motor vehicle transmission and power train parts, motor vehicle seating and interior trim, and motor vehicle stampings).

### **336391 MOTOR VEHICLE AIR-CONDITIONING MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing air-conditioning systems and compressors for motor vehicles, such as automobiles, trucks, buses, aircraft, farm machinery, construction machinery, and other related vehicles.

### **336399 ALL OTHER MOTOR VEHICLE PARTS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle parts and accessories (except motor vehicle gasoline engines and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, motor vehicle transmission and power train parts, motor vehicle seating and interior trim, motor vehicle stampings, and motor vehicle air-conditioning systems and compressors).

### **3364 AEROSPACE PRODUCT AND PARTS MANUFACTURING**

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

1. Manufacturing complete aircraft, missiles, or space vehicles;
2. Manufacturing aerospace engines, propulsion units, auxiliary equipment or parts;
3. Developing and making prototypes of aerospace products;
4. Aircraft conversion (i.e., major modifications to systems); and
5. Complete aircraft or propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

### **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;

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2. manufacturing aerospace engines, propulsion units, auxiliary equipment or parts;
  3. developing and making prototypes of aerospace products;
  4. aircraft conversion (i.e., major modifications to systems); and
  5. complete aircraft or propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

### **336411 AIRCRAFT MANUFACTURING**

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

1. manufacturing or assembling complete aircraft;
2. developing and making aircraft prototypes;
3. aircraft conversion (i.e., major modifications to systems); and
4. complete aircraft overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

### **336412 AIRCRAFT ENGINE AND ENGINE PARTS MANUFACTURING**

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

1. manufacturing aircraft engines and engine parts;
2. developing and making prototypes of aircraft engines and engine parts;
3. aircraft propulsion system conversion (i.e., major modifications to systems); and
4. aircraft propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft propulsion system to original design specifications).

### **336413 OTHER AIRCRAFT PARTS AND AUXILIARY EQUIPMENT MANUFACTURING**

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

1. manufacturing aircraft parts or auxiliary equipment (except engines and aircraft fluid power subassemblies) and/or
2. developing and making prototypes of aircraft parts and auxiliary equipment.

Auxiliary equipment includes such items as crop dusting apparatus, armament racks, inflight refueling equipment, and external fuel tanks.

### **336414 GUIDED MISSILE AND SPACE VEHICLE MANUFACTURING**

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

1. manufacturing complete guided missiles and space vehicles and/or
2. developing and making prototypes of guided missile or space vehicles.

### **336415 GUIDED MISSILE AND SPACE VEHICLE PROPULSION UNIT AND PROPULSION UNIT PARTS MANUFACTURING**

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

1. manufacturing guided missile and/or space vehicle propulsion units and propulsion unit parts and/or
2. developing and making prototypes of guided missile and space vehicle propulsion units and propulsion unit parts.

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### **336419 OTHER GUIDED MISSILE AND SPACE VEHICLE PARTS AND AUXILIARY EQUIPMENT MANUFACTURING**

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

1. manufacturing guided missile and space vehicle parts and auxiliary equipment (except guided missile and space vehicle propulsion units and propulsion unit parts) and/or
2. developing and making prototypes of guided missile and space vehicle parts and auxiliary equipment.

### **3365 RAILROAD ROLLING STOCK MANUFACTURING**

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

1. Manufacturing and/or rebuilding locomotives, locomotive frames, and parts;
2. Manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and
3. Manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

### **33651 RAILROAD ROLLING STOCK MANUFACTURING**

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

1. manufacturing and/or rebuilding locomotives, locomotive frames, and parts;
2. manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and
3. manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

### **336510 RAILROAD ROLLING STOCK MANUFACTURING**

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

1. manufacturing and/or rebuilding locomotives, locomotive frames, and parts;
2. manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and
3. manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

### **3366 SHIP AND BOAT BUILDING**

This industry group comprises establishments primarily engaged in operating shipyards or boat yards (i.e., ship or boat manufacturing facilities). Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for other than personal or recreational use. Boats are defined as watercraft typically suitable or intended for personal use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

### **33661 SHIP AND BOAT BUILDING**

This industry comprises establishments primarily engaged in operating shipyards or boat yards (i.e., ship or boat manufacturing facilities). Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for



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other than personal or recreational use. Boats are defined as watercraft typically suitable or intended for personal use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

### **336611 SHIP BUILDING AND REPAIRING**

This U.S. industry comprises establishments primarily engaged in operating a shipyard. Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for other than personal or recreational use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

### **336612 BOAT BUILDING**

This U.S. industry comprises establishments primarily engaged in building boats. Boats are defined as watercraft not built in shipyards and typically of the type suitable or intended for personal use.

### **3369 OTHER TRANSPORTATION EQUIPMENT MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing transportation equipment (except motor vehicles and parts, aerospace products and parts, railroad rolling stock, ship building, and boat manufacturing).

### **33699 OTHER TRANSPORTATION EQUIPMENT MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing motorcycles, bicycles, metal tricycles, complete military armored vehicles, tanks, self-propelled weapons, vehicles pulled by draft animals, and other transportation equipment (except motor vehicles, boats, ships, railroad rolling stock, and aerospace products), including parts thereof.

### **336991 MOTORCYCLE, BICYCLE, AND PARTS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing motorcycles, bicycles, tricycles and similar equipment, and parts.

### **336992 MILITARY ARMORED VEHICLE, TANK, AND TANK COMPONENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing complete military armored vehicles, combat tanks, specialized components for combat tanks, and self-propelled weapons.

### **336999 ALL OTHER TRANSPORTATION EQUIPMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing transportation equipment (except motor vehicles, motor vehicle parts, boats, ships, railroad rolling stock, aerospace products, motorcycles, bicycles, and armored vehicles and tanks).

### **337 FURNITURE AND RELATED PRODUCT MANUFACTURING**

Industries in the Furniture and Related Product Manufacturing subsector make furniture and related articles, such as mattresses, window blinds, cabinets, and fixtures. The processes used in the manufacture of furniture include the cutting, bending, molding, laminating, and assembly of such materials as wood, metal, glass, plastics, and rattan. However, the production process for

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furniture is not solely bending metal, cutting and shaping wood, or extruding and molding plastics. Design and fashion trends play an important part in the production of furniture. The integrated design of the article for both esthetic and functional qualities is also a major part of the process of manufacturing furniture. Design services may be performed by the furniture establishment's work force or may be purchased from industrial designers.

Furniture may be made of any material, but the most common ones used in North America are metal and wood. Furniture manufacturing establishments may specialize in making articles primarily from one material. Some of the equipment required to make a wooden table, for example, is different from that used to make a metal one. However, furniture is usually made from several materials. A wooden table might have metal brackets, and a wooden chair a fabric or plastics seat. Therefore, in NAICS, furniture initially is classified based on the type of furniture (application for which it is designed) rather than the material used. For example, an upholstered sofa is treated as household furniture, although it may also be used in hotels or offices.

When classifying furniture according to the component material from which it is made, furniture made from more than one material is classified based on the material used in the frame, or if there is no frame, the predominant component material. Upholstered household furniture (excluding kitchen and dining room chairs with upholstered seats) is classified without regard to the frame material. Kitchen or dining room chairs with upholstered seats are classified according to the frame material.

Furniture may be made on a stock or custom basis and may be shipped assembled or unassembled (i.e., knockdown). The manufacture of furniture parts and frames is included in this subsector.

Some of the processes used in furniture manufacturing are similar to processes that are used in other segments of manufacturing. For example, cutting and assembly occurs in the production of wood trusses that are classified in Subsector 321, Wood Product Manufacturing. However, the multiple processes that distinguish wood furniture manufacturing from wood product manufacturing warrant inclusion of wooden furniture manufacturing in the Furniture and Related Product Manufacturing subsector. Metal furniture manufacturing uses techniques that are also employed in the manufacturing of roll-formed products classified in Subsector 332, Fabricated Metal Product Manufacturing. The molding process for plastics furniture is similar to the molding of other plastics products. However, plastics furniture producing establishments tend to specialize in furniture.

NAICS attempts to keep furniture manufacturing together, but there are two notable exceptions: seating for transportation equipment and laboratory and hospital furniture. These exceptions are related to that fact that some of the aspects of the production process for these products, primarily the design, are highly integrated with that of other manufactured goods, namely motor vehicles and health equipment.

### **3371 HOUSEHOLD AND INSTITUTIONAL FURNITURE AND KITCHEN CABINET MANUFACTURING**

This industry group comprises establishments manufacturing household-type furniture, such as living room, kitchen and bedroom furniture and institutional (i.e., public building) furniture, such as furniture for schools, theaters, and churches.

#### **33711 WOOD KITCHEN CABINET AND COUNTERTOP MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing wood or plastics laminated on wood kitchen cabinets, bathroom vanities, and countertops (except freestanding). The cabinets and counters may be made on a stock or custom basis.

##### **337110 WOOD KITCHEN CABINET AND COUNTERTOP MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood or plastics laminated on wood kitchen cabinets, bathroom vanities, and countertops (except freestanding). The cabinets and counters may be made on a stock or custom basis.

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## **33712 HOUSEHOLD AND INSTITUTIONAL FURNITURE MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing household-type and public building furniture (i.e., library, school, theater, and church furniture). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

### **337121 UPHOLSTERED HOUSEHOLD FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing upholstered household-type furniture. The furniture may be made on a stock or custom basis.

### **337122 NONUPHOLSTERED WOOD HOUSEHOLD FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonupholstered wood household-type furniture and freestanding cabinets (except television, radio, and sewing machine cabinets). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

### **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).

### **33712N OTHER HOUSEHOLD NONUPHOLSTERED FURNITURE**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 337124 Metal Household Furniture Manufacturing;
2. 337125 Household Furniture (except Wood and Metal) Manufacturing; and
3. 337129 Wood Television, Radio, and Sewing Machine Cabinet Manufacturing.

#### **337124 Metal Household Furniture Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing metal household-type furniture and freestanding cabinets. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

#### **337125 Household Furniture (except Wood and Metal) Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing household-type furniture of materials other than wood or metal, such as plastics, reed, rattan, wicker, and fiberglass. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

#### **337129 Wood Television, Radio, and Sewing Machine Cabinet Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing wood cabinets used as housings by television, stereo, loudspeaker, and sewing machine manufacturers.

## **3372 OFFICE FURNITURE (INCLUDING FIXTURES) MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing office furniture and/or office and store fixtures. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

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### **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).

### **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.

### **337215 SHOWCASE, PARTITION, SHELVING, AND LOCKER MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood and non-wood 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.

### **33721N OFFICE FURNITURE MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 337211 Wood Office Furniture Manufacturing and
2. 337214 Office Furniture (except Wood) Manufacturing.

### **337211 WOOD OFFICE FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing wood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

### **337214 OFFICE FURNITURE (EXCEPT WOOD) MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing nonwood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

### **3379 OTHER FURNITURE RELATED PRODUCT MANUFACTURING**

This industry group comprises establishments manufacturing furniture related products, such as mattresses, blinds, and shades.

### **33791 MATTRESS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing innerspring, box spring, and noninnerspring mattresses, including mattresses for waterbeds.

### **337910 MATTRESS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing innerspring, box spring, and noninnerspring mattresses, including mattresses for waterbeds.

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### **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:

1. venetian blinds, other window blinds, shades;
2. curtain and drapery rods, poles; and/or
3. curtain and drapery fixtures.

The blinds and shades may be made on a stock or custom basis and may be made of any material.

### **339 MISCELLANEOUS MANUFACTURING**

Industries in the Miscellaneous Manufacturing subsector make a wide range of products that cannot readily be classified in specific NAICS subsectors in manufacturing. Processes used by these establishments vary significantly, both among and within industries. For example, a variety of manufacturing processes are used in manufacturing sporting and athletic goods that include products, such as tennis racquets and golf balls. The processes for these products differ from each other, and the processes differ significantly from the fabrication processes used in making dolls or toys, the melting and shaping of precious metals to make jewelry, and the bending, forming, and assembly used in making medical products.

The industries in this subsector are defined by what is made rather than how it is made. Although individual establishments might be appropriately classified elsewhere in the NAICS structure, for historical continuity, these product-based industries were maintained. In most cases, no one process or material predominates for an industry.

Establishments in this subsector manufacture products as diverse as medical equipment and supplies, jewelry, sporting goods, toys, and office supplies.

### **3391 MEDICAL EQUIPMENT AND SUPPLIES MANUFACTURING**

This industry group comprises establishments primarily engaged in manufacturing medical equipment and supplies. Examples of products made by these establishments are laboratory apparatus and furniture, surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, dentures, and orthodontic appliances.

### **33911 MEDICAL EQUIPMENT AND SUPPLIES MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing medical equipment and supplies. Examples of products made by these establishments are laboratory apparatus and furniture, surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, dentures, and orthodontic appliances.

### **339111 LABORATORY APPARATUS AND FURNITURE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing laboratory apparatus and laboratory and hospital furniture (except dental). Examples of products made by these establishments are hospital beds, operating room tables, laboratory balances and scales, furnaces, ovens, centrifuges, cabinets, cases, benches, tables, and stools.

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For this industry, the 1997 Economic Census did not fully implement the conversion to NAICS. The data from 1997 to 2001 for NAICS industry 339111 did not include establishments primarily engaged in the manufacture of hospital beds and other hospital furniture. These establishments are included in the 2002 Economic Census data.

### **339112 SURGICAL AND MEDICAL INSTRUMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing medical, surgical, ophthalmic, and veterinary instruments and apparatus (except electrotherapeutic, electro-medical and irradiation apparatus). Examples of products made by these establishments are syringes, hypodermic needles, anesthesia apparatus, blood transfusion equipment, catheters, surgical clamps, and medical thermometers.

### **339113 SURGICAL APPLIANCE AND SUPPLIES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing surgical appliances and supplies. Examples of products made by these establishments are orthopedic devices, prosthetic appliances, surgical dressings, crutches, surgical sutures, and personal industrial safety devices (except protective eyewear).

### **339114 DENTAL EQUIPMENT AND SUPPLIES MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing dental equipment and supplies used by dental laboratories and offices of dentists, such as dental chairs, dental instrument delivery systems, dental hand instruments, and dental impression material and dental cements.

### **339115 OPHTHALMIC GOODS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing ophthalmic goods. Examples of products made by these establishments are prescription eyeglasses (except manufactured in a retail setting), contact lenses, sunglasses, eyeglass frames, reading glasses made to standard powers, and protective eyewear.

### **339116 DENTAL LABORATORIES**

This U.S. industry comprises establishments primarily engaged in manufacturing dentures, crowns, bridges, and orthodontic appliances customized for individual application.

### **3399 OTHER MISCELLANEOUS MANUFACTURING**

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

1. Jewelry and silverware manufacturing;
2. Sporting and athletic goods manufacturing;
3. Doll, toy, and game manufacturing;
4. Office supplies (except paper) manufacturing;
5. Sign manufacturing; and/or
6. All other miscellaneous manufacturing.

### **33991 JEWELRY AND SILVERWARE MANUFACTURING**

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

1. manufacturing, engraving, chasing, or etching jewelry;
2. manufacturing metal personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases);

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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.

### **33991M JEWELRY AND SILVERWARE MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 339911 Jewelry (except Costume) Manufacturing;
2. 339912 Silverware and Hollowware Manufacturing;
3. 339913 Jewelers' Material and Lapidary Work Manufacturing; and
4. 339914 Costume Jewelry and Novelty Manufacturing.

#### **339911 Jewelry (except Costume) Manufacturing**

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

1. manufacturing, engraving, chasing, or etching precious metal solid or precious metal clad jewelry;
2. manufacturing, engraving, chasing, or etching personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases) made of precious solid or clad metal; and
3. stamping coins.

#### **339912 Silverware and Hollowware Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing, engraving, chasing, or etching precious metal solid, precious metal clad, or pewter flatware and other hollowware.

#### **339913 Jewelers' Material and Lapidary Work Manufacturing**

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

1. manufacturing unassembled jewelry parts and stock shop products, such as sheet, wire, and tubing;
2. cutting, slabbing, tumbling, carving, engraving, polishing, or faceting precious or semiprecious stones and gems;
3. recutting, repolishing, and setting gem stones; and
4. drilling, sawing, and peeling cultured pearls.

#### **339914 Costume Jewelry and Novelty Manufacturing**

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

1. manufacturing, engraving, chasing, and etching costume jewelry; and/or



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2. manufacturing, engraving, chasing, or etching nonprecious metal personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases).

This industry includes establishments primarily engaged in manufacturing precious plated jewelry and precious plated personal goods.

### **33992 SPORTING AND ATHLETIC GOODS MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing sporting and athletic goods (except apparel and footwear).

#### **339920 SPORTING AND ATHLETIC GOODS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing sporting and athletic goods (except apparel and footwear).

#### **33993 DOLL, TOY, AND GAME MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing dolls, toys, and games, such as complete dolls, doll parts, doll clothes, action figures, toys, games (including electronic), hobby kits, and children's vehicles (except metal bicycles and tricycles).

#### **33993M DOLL, TOY, AND GAME MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 339931 Doll and Stuffed Toy Manufacturing and
2. 339932 Game, Toy, and Children's Vehicle Manufacturing.

#### **339931 Doll and Stuffed Toy Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing complete dolls, doll parts, and doll clothes; action figures; and stuffed toys.

#### **339932 Game, Toy, and Children's Vehicle Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing games (including electronic), toys, and children's vehicles (except bicycles and metal tricycles).

#### **33994 OFFICE SUPPLIES (EXCEPT PAPER) MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing office supplies. Examples of products made by these establishments are pens, pencils, felt tip markers, crayons, chalk, pencil sharpeners, staplers, hand operated stamps, modeling clay, and inked ribbons.

#### **33994M OFFICE SUPPLIES (EXCEPT PAPER) MANUFACTURING**

This Annual Survey of Manufactures (ASM) rollup industry comprises establishments primarily engaged in the following North American Industrial Classification System (NAICS) industries:

1. 339941 Pen and Mechanical Pencil Manufacturing;
2. 339942 Lead Pencil and Art Good Manufacturing;
3. 339943 Marking Device Manufacturing; and
4. 339944 Carbon Paper and Inked Ribbon Manufacturing.

#### **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.



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### **339942 Lead Pencil and Art Good Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing nonmechanical pencils and art goods. Examples of products made by these establishments are pencil leads, crayons, chalk, framed blackboards, pencil sharpeners, staplers, artists' palettes and paints, and modeling clay.

### **339943 Marking Device Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing marking devices, such as hand operated stamps, embossing stamps, stamp pads, and stencils.

### **339944 Carbon Paper and Inked Ribbon Manufacturing**

This U.S. industry comprises establishments primarily engaged in manufacturing carbon paper and inked ribbons.

### **33995 SIGN MANUFACTURING**

This industry comprises establishments primarily engaged in manufacturing signs and related displays of all materials (except printing paper and paperboard signs, notices, and displays).

### **339950 SIGN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing signs and related displays of all materials (except printing paper and paperboard signs, notices, and displays).

### **33999 ALL OTHER MISCELLANEOUS MANUFACTURING**

This industry comprises establishments primarily engaged in miscellaneous manufacturing (except medical equipment and supplies, jewelry and flatware, sporting and athletic goods, dolls, toys, games, office supplies (except paper), and signs).

### **339991 GASKET, PACKING, AND SEALING DEVICE MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing gaskets, packing, and sealing devices of all materials.

### **339992 MUSICAL INSTRUMENT MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing musical instruments (except toys).

### **339993 FASTENER, BUTTON, NEEDLE, AND PIN MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing fasteners, buttons, needles, pins, and buckles (except precious metals or precious and semiprecious stones and gems).

### **339994 BROOM, BRUSH, AND MOP MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing brooms, mops, and brushes.

### **339995 BURIAL CASKET MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in manufacturing burial caskets, cases, and vaults (except concrete).

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**339999 ALL OTHER MISCELLANEOUS MANUFACTURING**

This U.S. industry comprises establishments primarily engaged in miscellaneous manufacturing (except medical equipment and supplies, jewelry and flatware, sporting and athletic goods, dolls, toys, games, office supplies (except paper), musical instruments, fasteners, buttons, needles, pins, brooms, brushes, mops, and burial caskets).

# Appendix C.

## Methodology

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### SOURCES OF THE DATA

The Annual Survey of Manufactures (ASM) is a sample survey of approximately 57,000 establishments. A new sample is selected at 5-year intervals beginning the second survey year subsequent to the Economic Census — Manufacturing. The current sample was selected from the 1997 Economic Census — Manufacturing and has been used as the ASM sample since 1999. A new ASM sample will be introduced for the 2004-2008 surveys based on the 2002 Economic Census — Manufacturing.

In 1997, there were approximately 366,000 individual manufacturing establishments. For sample efficiency and cost considerations, the 1997 manufacturing population was divided into those sent report forms and those not sent report forms. The coverage of and the method of obtaining the Annual Survey of Manufactures (ASM) sample information from each are described below:

1. Establishments sent a report form:

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 200,000 of the 366,000 establishments in the 1997 Economic Census — Manufacturing 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).

The 1999-2003 ASM sample design is similar to the one used since 1984. Companies in the 1997 Economic Census — Manufacturing with manufacturing shipments of at least \$1 billion were defined as company certainties. For these large companies, each manufacturing establishment is included in the mail sample. For the 1999-2003 sample, there are approximately 500 certainty companies collectively accounting for over 14,000 establishments.

For the remaining portion of the mail component of the survey, the establishment was defined as the sample unit. All establishments with 500 employees or more were defined as employment certainties. In addition, all establishments producing electronic computers were defined as certainties. A final certainty category, small industry certainties, was added for the 1999 sample. This category assured that all establishments of small industries (20 establishments or less) were included in the sample. Across these four arbitrary certainty classes, there were approximately 16,600 establishments included in the sample with certainty. Collectively, these certainty establishments accounted for approximately 62 percent of the total value of shipments in the 1997 Economic Census — Manufacturing.

Smaller establishments in the remaining portion of the mail stratum were sampled with probabilities ranging from .02 to 1.00. The initial probabilities of selection assigned to these establishments were proportionate to a measure-of-size determined for each establishment. The measure-of-size was a function of the establishment's 1997 industry classification and its 1997 product class data. For each product class and six-digit industry, a desired reliability constraint was specified. The product class constraints were based on product class size (1997 shipments) while the industry constraints were a function of both current size (1997 shipments) and change in size since 1992. 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.

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This method of assigning probabilities based on product class shipments is motivated by the Census Bureau's primary desire to produce reliable estimates of both product class and industry shipments. The high correlation between shipments and employment, value-added, and other general statistics assures that these variables will also be well represented by the sample. The actual sample selection procedure uses an independent chance of selection method (Poisson sampling).

2. Establishments not sent a report form:

- a. Nonmail stratum. The nonmail component of the Annual Survey of Manufactures (ASM) traditionally consists of small, single-establishment companies from the Economic Census — Manufacturing. For the 1999 sample, this component also included approximately 3,600 single-establishment companies that were rotated from the mail stratum to the nonmail stratum in order to prevent their selection in consecutive sample panels. The combined initial nonmail component of the 1999 sample contained approximately 166,000 single-establishment companies from the 1997 Economic Census — Manufacturing. The nonmail stratum is also supplemented annually using the list of newly active single-location companies provided by the Internal Revenue Service (IRS) and payroll cutoffs. Companies with payroll below the payroll cutoff are added to the nonmail stratum. For this portion of the population, sampling is not used. The data for these companies 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.
- b. All nonemployers, i.e., all firms subject to federal income tax, with no paid employees, during 2003 are excluded as in previous Annual Survey of Manufactures (ASM). Data for nonemployers are not included in this report, but are released in the annual *Nonemployer Statistics* series.

The report forms, frequently asked questions, and instructions used to collect information from establishments in the Annual Survey of Manufactures (ASM) are available at <http://help.econ.census.gov/BHS/ASM/index.html>.

The Annual Survey of Manufactures (ASM) reports to review online are available at <http://www.census.gov/mcd/asmhome.html>.

### **ESTABLISHMENT BASIS OF REPORTING**

The Annual Survey of Manufactures (ASM) is conducted on an establishment basis. Reports are filed for 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. Estimates are based on the reports from a representative sample of manufacturing establishments. These estimates represent the portion of the manufacturing population accounted for by establishments with paid employees. Nonemployers are defined as out-of-scope of the ASM. The tables provide estimates for employment, plant hours, payrolls, value added by manufacture, capital expenditures, cost of materials, inventories, value of industry shipments, and fuels and electric energy consumed for most manufacturing industries.

The Annual Survey of Manufactures (ASM) 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.

### **RELIABILITY OF DATA**

All data compiled in the Annual Survey of Manufactures (ASM) are subject to nonsampling errors. Nonsampling errors can be attributed to many sources during the development or execution of the ASM. The following are two ways that further explain this method:

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1. **Estimating Procedure.** Most of the Annual Survey of Manufactures (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 historical 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 a base year is computed from sample cases and added to the corresponding base-year values. For the 1998-2001 ASM estimates, the 1997 Economic Census — Manufacturing values serve as the base year. For the 2003 ASM, the base has been updated to the 2002 Economic Census — Manufacturing.

Due to the positive year-to-year correlation, estimates derived using this methodology are generally more reliable than comparable estimates developed from the current sample data alone. Estimates for the capital expenditures variables are not generated using the difference estimator because the year-to-year correlations are considerably weaker. The standard linear estimator is used for these variables.

For the nonmail stratum, estimates for payroll are directly tabulated from the administrative-record data provided by the Internal Revenue Service (IRS) and the Social Security Administration (SSA). Estimates of the other data variables are developed from industry averages. Although the nonmail stratum contained approximately 156,000 individual establishments in 2003, it accounted for less than 3 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.

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

The particular sample selected for the Annual Survey of Manufactures (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 Annual Survey of Manufactures (ASM) statistics in this report. They are represented in the form of relative standard errors (the standard errors divided by the estimated values to which they refer).

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

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

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

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

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

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

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables in this publication having an associated standard error exceeding 15 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

## **DUPLICATION IN COST OF MATERIALS AND VALUE OF SHIPMENTS**

Data for cost of materials and value of shipments include varying amounts of duplication, especially at higher levels of aggregation. This is because the products of one establishment may be the materials of another. The value added statistics avoid this duplication and are, for most purposes, the best measure for comparing the relative economic importance of industries and geographic areas.

## **VALUE OF INDUSTRY SHIPMENTS COMPARED WITH VALUE OF PRODUCT SHIPMENTS**

The Annual Survey of Manufactures (ASM) 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 (resales, contract receipts, repair work, etc.). Value of product shipments shown in the products statistics tables and files represent the total value of all products shipped that are classified as primary to an industry regardless of the classification of the producing establishment.

## **DISCLOSURE**

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

The disclosure analysis for the industry statistics files is based on the total value of shipments. When the total value of shipments cannot be shown without disclosing information for individual companies, the complete line is suppressed except for capital expenditures. Nonetheless, the suppressed data are included in higher-level totals. A separate disclosure analysis is performed for capital expenditures, which can be suppressed even though value of shipments data are published.

# Appendix D. Geographic Notes

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Not applicable for this report.

# Appendix E. Metropolitan and Micropolitan Statistical Areas

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Not applicable for this report.



# Appendix F. Comparability of NAICS Codes and NAICS-based Codes

NAICS code	NAICS-based code	NAICS code	NAICS-based code	NAICS code	NAICS-based code	NAICS code	NAICS-based code
31111	31111	31214	31214	31699	31699	32518	32518
311111	311111	312140	312140	316991	31699M	325181	325181
311119	311119			316992	31699M	325182	325182
		31221	31221	316993	31699M	325188	325188
31121	31121	312210	312210	316999	31699M		
311211	31121M					32519	32519
311212	31121M	31222	31222	32111	32111	325191	32519M
311213	31121M	312221	31222M	321113	32111M	325192	32519M
		312229	31222M	321114	32111M	325193	32519M
						325199	32519M
31122	31122	31311	31311	32121	32121		
311221	311221	313111	31311M	321211	32121N	32521	32521
311222	31122N	313112	31311M	321212	32121N	325211	325211
311223	31122N	313113	31311M	321213	32121P	325212	325212
311225	311225			321214	32121P		
		31321	31321	321219	321219	32522	32522
31123	31123	313210	313210			325221	32522M
311230	311230					325222	32522M
		31322	31322	32191	32191		
31131	31131	313221	31322M	321911	32191M	32531	32531
311311	31131N	313222	31322M	321912	32191M	325311	325311
311312	31131N			321918	32191M	325312	325312
311313	311313	31323	31323			325314	325314
		313230	313230	32192	32192		
31132	31132			321920	321920	32532	32532
311320	311320	31324	31324			325320	325320
		313241	31324M	32199	32199		
31133	31133	313249	31324M	321991	321991	32541	32541
311330	311330			321992	321992	325411	325411
		31331	31331	321999	321999	325412	325412
31134	31134	313311	31331M			325413	325413
311340	311340	313312	31331M	32211	32211	325414	325414
		31332	31332	322110	322110		
31141	31141	313320	313320			32551	32551
311411	31141M			32212	32212	325510	325510
311412	31141M	31411	31411	322121	32212M		
		314110	314110	322122	32212M		
31142	31142					32552	32552
311421	31142M	31412	31412	32213	32213	325520	325520
311422	31142M	314121	31412M	322130	322130		
311423	31142M	314129	31412M			32561	32561
				32221	32221	325611	32561M
31151	31151			322211	32221M	325612	32561M
311511	31151N	31491	31491	322212	32221M	325613	32561M
311512	31151N	314911	31491M	322213	32221M		
311513	311513	314912	31491M	322214	32221M	32562	32562
311514	311514			322215	32221M	325620	325620
		31499	31499				
31152	31152	314991	314991	32222	32222	32591	32591
311520	311520	314992	314992	322221	32222N	325910	325910
		314999	314999	322222	32222N		
31161	31161			322223	32222P	32592	32592
311611	31161N	31511	31511	322224	32222P	325920	325920
311612	31161N	315111	31511M	322225	32222P		
311613	31161N	315119	31511M	322226	32222P	32599	32599
311615	311615					325991	325991
		31519	31519	32223	32223	325992	32599N
31171	31171	315191	31519M	322231	32223M	325998	32599N
311711	31171M	315192	31519M	322232	32223M		
311712	31171M			322233	32223M		
		31521	31521			32611	32611
31181	31181	315211	31521M	32229	32229	326111	326111
311811	31181M	315212	31521M	322291	322291	326112	326112
311812	31181M			322299	322299	326113	326113
311813	31181M						
		31522	31522			32612	32612
31182	31182	315221	31522M	32311	32311	326121	326121
311821	31182M	315222	31522M	323110	32311M	326122	326122
311822	31182M	315223	31522M	323111	32311M		
311823	31182M	315224	31522M	323112	32311M		
		315225	31522M	323113	32311M	32613	32613
31183	31183	315228	31522M	323114	32311M	326130	326130
311830	311830			323115	32311M		
		31523	31523	323116	32311M	32614	32614
31191	31191	315231	31523M	323117	32311M	326140	326140
311911	31191M	315232	31523M	323118	32311M		
311919	31191M	315233	31523M	323119	32311M	32615	32615
		315234	31523M			326150	326150
31192	31192	315239	31523M				
311920	311920			32312	32312M	32616	32616
				323121	32312M	326160	326160
31193	31193			323122	32312M		
311930	311930	31529	31529			32619	32619
		315291	31529M	32411	32411	326191	32619M
		315292	31529M	324110	324110	326192	32619M
31194	31194	315299	31529M			326199	32619M
311941	31194M			32412	32412		
311942	31194M	31599	31599	324121	324121	32621	32621
		315991	31599M	324122	324122	326211	32621M
31199	31199	315992	31599M			326212	32621M
311991	31199M	315993	31599M	32419	32419		
311999	31199M	315999	31599M	324191	324191	32622	32622
				324199	324199	326220	326220
31211	31211	31611	31611				
312111	31211M	316110	316110	32511	32511	32629	32629
312112	31211M			325110	325110	326291	32629M
312113	31211M					326299	32629M
		31621	31621				
31212	31212	316211	31621M	32512	32512		
312120	312120	316212	31621M	325120	325120		
		316213	31621M			32711	32711
		316214	31621M	32513	32513	327111	327111
31213	31213	316219	31621M	325131	32513M	327112	327112
312130	312130			325132	32513M	327113	327113

NAICS code	NAICS-based code	NAICS code	NAICS-based code	NAICS code	NAICS-based code	NAICS code	NAICS-based code
32712	32712	33241	33241	33392	33392	33612	33612
327121	327121	332410	332410	333921	33392M	336120	336120
327122	327122			333922	33392M	33621	33621
327123	327123	33242	33242	333923	33392M	336211	336211
327124	32712N	332420	332420	333924	33392M	336212	336212
327125	32712N					336213	336213
						336214	336214
32721	32721	33243	33243	33399	33399		
327211	327211	332431	33243M	333991	33399P	33631	33631
327212	327212	332439	33243M	333992	33399P	336311	33631M
327213	327213			333993	333993	336312	33631M
327215	327215	33251	33251	333994	33399N		
		332510	332510	333995	33399N	33632	33632
				333996	33399N	336321	33632M
32731	32731			333997	33399P	336322	33632M
327310	327310	33261	33261	333999	33399P		
		332611	33261M			33633	33633
		332612	33261M			336330	336330
		332618	33261M				
32732	32732			33411	33411	33634	33634
327320	327320			334111	334111	336340	336340
				334112	334112		
32733	32733	33271	33271	334113	334113	33635	33635
327331	32733M	332710	332710	334119	334119	336350	336350
327332	32733M						
32739	32739	33272	33272	33421	33421	33636	33636
327390	327390	332721	332721	334210	334210	336360	336360
		332722	332722				
32741	32741	33281	33281	33422	33422	33637	33637
327410	327410	332811	33281M	334220	334220	336370	336370
		332812	33281M				
32742	32742	332813	33281M	33429	33429	33639	33639
327420	327420			334290	334290	336391	336391
						336399	336399
32791	32791	33291	33291			33641	33641
327910	327910	332911	33291M	33431	33431	336411	336411
		332912	33291M	334310	334310	336412	336412
		332913	33291M			336413	336413
		332919	33291M			336414	336414
32799	32799			33441	33441	336415	336415
327991	327991	33299	33299	334411	334411	336419	336419
327992	327992	332991	332991	334412	334412		
327993	327993	332992	332992	334413	334413		
327999	327999	332993	332993	334414	334414		
		332994	332994	334415	334415		
33111	33111	332995	332995	334416	334416	33651	33651
331111	33111M	332996	332996	334417	334417	336510	336510
331112	33111M	332997	332997	334418	334418		
		332998	332998	334419	334419	33661	33661
33121	33121	332999	332999			336611	336611
331210	331210					336612	336612
33122	33122			33451	33451	33699	33699
331221	33122M			334510	334510	336991	336991
331222	33122M	33311	33311	334511	334511	336992	336992
		333111	33311M	334512	334512	336999	336999
		333112	33311M	334513	334513		
33131	33131			334514	334514	33711	33711
331311	33131M	33312	33312	334515	334515	337110	337110
331312	33131M	333120	33312M	334516	334516		
331314	33131M			334517	334517	33712	33712
331315	33131M	33313	33313	334518	334518	337121	33712M
331316	33131M	333131	33313M	334519	334519	337122	33712M
331319	33131M	333132	33313M			337123	33712M
						337127	33712M
						337129	33712M
33141	33141	33321	33321	33461	33461		
331411	33141M	333210	33321M	334611	334611	33721	33721
331419	33141M			334612	334612	337211	33721M
				334613	334613	337212	33721M
						337214	33721M
33142	33142	33322	33322			337215	33721M
331421	33142M	333220	33322M	33511	33511		
331422	33142M			335110	335110		
331423	33142M	33329	33329				
		333291	33329M	33512	33512	33791	33791
		333292	33329M	33512M	33512M	337910	337910
33149	33149	333293	33329M	335122	335122		
331491	33149M	333294	33329M	335129	335129	33792	33792
331492	33149M	333295	33329M			337920	337920
		333298	33329M				
33151	33151			33521	33521	33911	33911
331511	33151M	33331	33331	335211	33521M	339111	339111
331512	33151M	333311	33331M	335212	33521M	339112	339112
331513	33151M	333312	33331M			339113	339113
		333313	33331M	33522	33522	339114	339114
33152	33152	333313	33331M	335221	335221	339115	339115
331521	33152M	333314	33331M	335222	335222	339116	339116
331522	33152P	333315	33331M	335224	335224		
331524	33152P	333319	33331M	335228	335228	33991	33991
331525	33152P					339911	33991M
331528	33152P	33341	33341	33531	33531	339912	33991M
		333411	33341M	335311	335311	339913	33991M
		333412	33341M	335312	335312	339914	33991M
33211	33211	333414	33341M	335313	335313		
332111	33211M	333415	33341M	335314	335314	33992	33992
332112	33211M					339920	339920
332114	33211M						
332115	33211P	33351	33351				
332116	33211P	333511	33351M	33591	33591	33993	33993
332117	33211P	333512	33351M	335911	335911	339931	33993M
		333513	33351M	335912	335912	339932	33993M
		333514	33351M				
33221	33221	333515	33351M	33592	33592	33994	33994
332211	33221M	333516	33351M	335921	33592M	339941	33994M
332212	33221P	333518	33351M	335929	33592M	339942	33994M
332213	33221P					339943	33994M
332214	33221M			33593	33593	339944	33994M
				335931	33593M		
33231	33231	33361	33361	335932	33593M	33995	33995
332311	33231M					339950	339950
332312	33231M	333612	33361M				
332313	33231M	333613	33361M	33599	33599	33999	33999
		333618	33361M	335991	335991	339991	339991
				335999	335999	339992	339992
33232	33232					339993	339993
332321	33232M	33391	33391			339994	339994
332322	33232M	333911	33391M	33611	33611	339995	339995
332323	33232M	333912	33391M	336111	336111	339999	339999
		333913	33391M	336112	336112		

