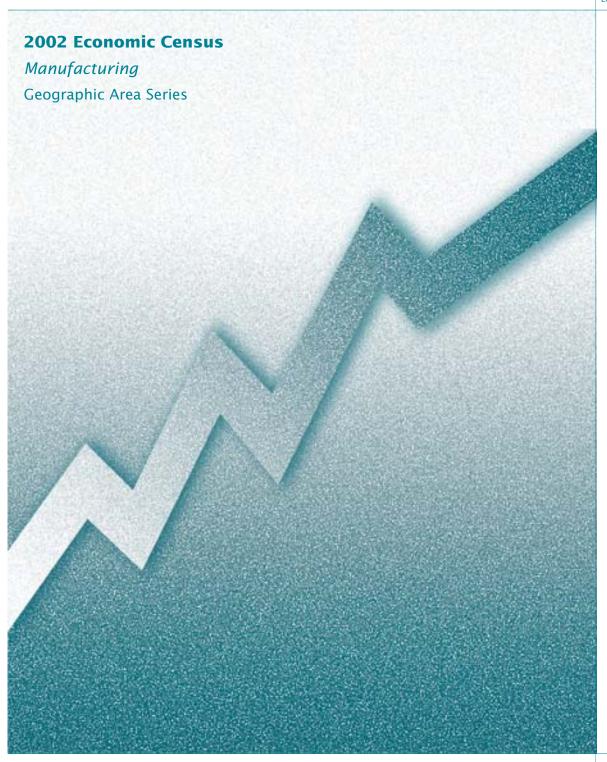
EC02-31A-OK (RV)





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2002 Economic Census

Manufacturing
Geographic Area Series





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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

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

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

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

INDUSTRY CLASSIFICATIONS

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

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

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

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

RELATIONSHIP TO HISTORICAL INDUSTRY CLASSIFICATIONS

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

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

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

BASIS OF REPORTING

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

GEOGRAPHIC AREA CODING

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

AVAILABILITY OF ADDITIONAL DATA

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

HISTORICAL INFORMATION

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

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

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

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

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

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

SOURCES FOR MORE INFORMATION

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

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Manufacturing

SCOPE

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

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

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

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

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

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

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

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

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

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

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

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

REPORTS

The following reports provide statistics on this sector:

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

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

U.S. Census Bureau, 2002 Economic Census

Subject Series:

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

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

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

GEOGRAPHIC AREAS COVERED

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

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

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

DOLLAR VALUES

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

All dollar values are shown in thousands of dollars.

COMPARABILITY OF THE 1997 AND 2002 ECONOMIC CENSUSES

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

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

RELIABILITY OF DATA

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

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

DISCLOSURE

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

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

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

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

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

CONTACTS FOR DATA USERS

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

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with these data:

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

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

Table 1. Industry Statistics for the State: 2002

1011113,	l	Toriu	or table. I	OI IIIIOIIII	lation on geo	grapriic areas i	ollowed by ,	See Append	iix D. Tormes	illing of abbrevie	tilons and symbo	713, 366 IITI Oddc	tory text]
			All establishments ²		All employees		Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA												
31-33	Manufacturing	1	r4 027	r1 074	r149 983	r5 355 937	r109 230	r214 758	r3 438 187	r17 005 404	r23 001 158	r39 924 050	r1 046 987
311 3111	Food manufacturing Animal food manufacturing	1	275 43	83 18	17 141 1 226	491 057 41 400	13 065 840	26 569 1 833	323 335 25 900	1 850 332 205 398	2 721 923 659 405	4 599 804 899 788	91 957 11 708
31111	Animal food manufacturing	_	43	18	1 226	41 400	840	1 833	25 900	205 398	659 405	899 788	11 708
311111	Dog and cat food manufacturing	-	5	3	е	D	D	D	D	D	D	D	D
311119	Other animal food manufacturing	1	38	15	f	D	D	D	D	D	D	D	D
3112	Grain and oilseed milling	1	9	8	847	32 558	649	1 460	20 579	175 525	276 241	448 393	13 597
31121 311211	Flour milling and malt manufacturing Flour milling	_	6	5 5	505 505	17 672 17 672	409 409	920 920	11 755 11 755	50 756 50 756	130 288 130 288	179 058 179 058	3 105 3 105
31122	Starch and vegetable fats and oils manufacturing	2	3	3	342	14 886	240	540	8 824	124 769	145 953	269 335	10 492
311222	Soybean processing	-	1	1	С	D	Ď	D	D	D	D	D	D
3114	Fruit and vegetable preserving and specialty food manufacturing	_	8	4	384	12 336	317	666	8 203	30 347	59 462	89 692	D
31142 311421	Fruit and vegetable canning, pickling, and drying Fruit and vegetable canning.	_ _	4 3	2	e e	D D	D D	D D	D D	D D	D D	D D	D D
3115	Dairy product manufacturing	1	12	5	804	26 768	490	1 120	15 062	81 962	157 045	244 479	D
31151	Dairy product (except frozen) manufacturing	_	7	3	f	D	D	D	D	D	D	D	D
311511 31152	Fluid milk manufacturing Ice cream and frozen dessert	-	3	3	f	D	D	D	D	D	D	D	D
311520	manufacturing Ice cream and frozen dessert manufacturing	3	5	2	c c	D D	D D	D D	D D	D D	D D	D D	D D
3116	Animal slaughtering and processing	2	80	26	8 888	224 291	7 656	16 241	169 046	816 887	1 170 392	1 979 951	24 354
31161	Animal slaughtering and processing	2	80	26	8 888	224 291	7 656	16 241	169 046	816 887	1 170 392	1 979 951	24 354
311611	Animal (except poultry) slaughtering	1	40	3	2 763	75 438	2 340	5 515	58 523	173 118	573 006	739 560	7 465
311612 311615	Meat processed from carcasses	_ 9	30 4	17	3 712	102 075 D	3 116 D	6 401 D	71 588 D	373 570 D	543 172 D	914 888 D	11 288
3118	Bakeries and tortilla manufacturing	2	82	13	g 3 699	119 276	2 095	4 036	59 359	374 582	263 267	635 232	23 864
31181	Bread and bakery product manufacturing	1	69	11	h	D	D	D	D	D	D	D	D
311811 311812 311813	Retail bakeries	5 2	45 19	2 7	1 613	D 54 783	D 597	D 957	D 18 355	D 136 464	D 53 463	D 189 955	195 D
31182	other pastries manufacturing Cookie, cracker, and pasta	-	5	2	g	D	D	D	D	D	D	D	D
311821	manufacturing Cookie and cracker	6	4	2	f	D	D	D	D	D	D	D	D
3119	manufacturing	6	34	2	f 1 242	D 33 481	D 978	D 1 162	D 24 506	D 163 080	D 135 355	D 298 930	D 7 436
31193	Other food manufacturing Flavoring syrup and		34	0	1 242	33 461	976	1 102	24 500	163 060	133 333	296 930	7 430
311930	concentrate manufacturing Flavoring syrup and	-	1	1	С	D	D	D	D	D	D	D	D
31194	concentrate manufacturing . Seasoning and dressing manufacturing	1	7	1	c c	D D	D D	D D	D D	D D	D D	D D	D D
311941	Mayonnaise, dressing, and other prepared sauce												
31199 311991	manufacturing All other food manufacturing Perishable prepared food manufacturing	1 - 5	4 21 4	1 5 3	834 c	D 20 137 D	D 723 D	D 592 D	16 241 D	D 128 938 D	D 45 372 D	D 169 175 D	D 4 759 D
311999	All other miscellaneous food manufacturing	-	17	2	f	D	D	D	D	D	D	D	D
312	Beverage and tobacco product manufacturing	_	27	6	1 208	43 788	244	543	6 928	182 189	241 915	424 481	18 783
3121	Beverage manufacturing	-	27	6	1 208	43 788	244	543	6 928	182 189	241 915	424 481	18 783
31211 312111	Soft drink and ice manufacturing Soft drink manufacturing	 - 	22 7	6 5	g 1 116	D 41 148	D 190	D 450	D 5 809	D 173 816	D 238 054	D 412 245	D 17 855
313	Textile mills	5	19	2	162	3 736	138	260	2 815	4 829	3 936	8 765	115
3132	Fabric mills	4	11	2	151	3 398	129	244	2 598	4 005	3 061	7 066	95

	and geographical delimitoris, see note al	Cild			auon on geog	grapriic areas i	ollowed by ,	3cc Append	iix D. Tol liled	Tilling of abbrevia	and symbol	, see introduc	tory text]
			establisl	III nments ²	All em	ployees	Pro	duction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA—Con.												
314	Textile product mills	2	75	10	806	17 107	646	1 217	11 064	52 254	38 937	92 634	790
3141	Textile furnishings mills	1	27	6	366	6 849	309	629	4 633	17 159	22 285	40 562	346
31412 314121	Curtain and linen mills Curtain and drapery mills	1 2	25 20	6 4	e c	D D	D D	D D	D D	D D	D D	D D	D D
314129	Other household textile product mills	1	5	2	169	3 254	143	304	2 270	10 314	15 929	27 464	236
3149	Other textile product mills	3	48	4	440	10 258	337	588	6 431	35 095	16 652	52 072	444
31491 314912	Textile bag and canvas mills Canvas and related product	1	21	2	304	7 288	230	411	4 429	28 777	9 712	38 828	307
31499	mills	8	19 27	2 2	e 136	D 2 970	D 107	D 177	2 002	D 6 318	D 6 940	D 13 244	307 137
314999	All other miscellaneous textile product mills	8	26	2	С	D	D	D	D	D	D	D	D
315	Apparel manufacturing	-	68	21	3 207	57 782	2 581	4 350	39 330	607 722	133 186	717 809	D
3152	Cut and sew apparel manufacturing	-	55	20	3 132	56 161	2 515	4 224	38 174	605 154	130 638	712 786	D
31521	Cut and sew apparel contractors	2	30	6	f	D	D	D	D	D	D	D	135
315212	Women's, girls', and infants' cut and sew apparel												
31522	contractors	2	23	5	е	D	D	D	D	D	D	D	130
315224	apparel manufacturing Men's and boys' cut and sew	-	10	7	g	D	D	D	D	D	D	D	D
31523	trouser, slack, and jean manufacturing Women's and girls' cut and sew	-	4	4	g	D	D	D	D	D	D	D	D
315231	apparel manufacturing Women's and girls' cut and	-	8	6	365	7 766	292	550	5 774	22 650	60 462	86 509	D
	sew lingerie, loungewear, and nightwear					_	_		_	_	_	_	_
31529	manufacturing Other cut and sew apparel	_	2	2	С	D	D	D	D	D	D	D	D
315299	manufacturing	_	7 6	1	e e	D D	D D	D D	D D	D D	D D	D D	D D
316	Leather and allied product manufacturing	2	18	5	289	4 948	253	432	3 891	13 264	6 244	18 740	D
3169	Other leather and allied product manufacturing	1	16	5	е	D	D	D	D	D	D	D	D
31699	Other leather and allied product	1	16	5		D	D	D	D	D	D	D	D
316999	manufacturing	2	12	4	e 257	4 408	224	385	3 516	12 160	5 583	16 975	D
321	Wood product manufacturing	2	138	25	2 159	60 563	1 915	3 827	51 145	120 934	197 030	317 981	21 745
3211	Sawmills and wood preservation .	_	23	7	728	23 059	689	1 459	21 578	53 243	100 840	153 548	11 151
32111	Sawmills and wood preservation	_	23	7	728	23 059	689	1 459	21 578	53 243	100 840	153 548	11 151
321113 321114	Sawmills	1	19 4	5 2	585 143	20 153 2 906	555 134	1 193 266	18 992 2 586	45 462 7 781	93 887 6 953	139 044 14 504	D D
3212	Veneer, plywood, and engineered		00	4	CEO	10 500	570	1 000		04.000	FC 20F	00.000	0.074
32121	wood product manufacturing Veneer. plywood, and	1	29	4	653	19 599	578	1 200	16 370	34 282	56 305	90 960	8 974
	engineered wood product manufacturing	1	29	4	653	19 599	578	1 200	16 370	34 282	56 305	90 960	8 974
321212	Softwood veneer and plywood manufacturing	-	1	1	е	D	D	D	D.	D	D	D	D
321214 321219	Truss manufacturing Reconstituted wood product manufacturing	5	23	1	c 197	D 4 662	D 159	D 271	3 058	D 13 219	D 13 875	D 27 397	D D
3219	Other wood product manufacturing	4	86	14	778	17 905	648	1 168	13 197	33 409	39 885	73 473	1 620
32191	Millwork	4	39	7	332	7 932	275	517	5 862	16 098	20 905	37 052	778
321911	Wood window and door manufacturing	3	14	5	173	3 863	141	266	2 902	9 619	11 239	20 913	375
321918 32192	Other millwork (including flooring)	5	18	2	130	3 289	107	200	2 337	5 100	7 076	12 171	326
321920	manufacturing	3	22	5	261	5 738	230	414	4 357	9 464	11 367	21 050	503
32199	manufacturing	3	22	5	261	5 738	230	414	4 357	9 464	11 367	21 050	503
321999	manufacturing	4	25	2	185	4 235	143	237	2 978	7 847	7 613	15 371	339
322	product manufacturing Paper manufacturing	4	20 42	1 22	152 3 987	3 391 181 368	121 3 183	194 6 331	2 558 138 375	6 183 912 971	6 328 885 761	12 422 1 796 762	315 48 557
3221	Pulp, paper, and paperboard												
32212	mills	_	7	6	2 428 g	130 368 D	2 078 D	4 165 D	107 220 D	787 302 D	720 371 D	1 503 404 D	41 197 D
322121	Paper (except newsprint) mills	_	4	3	g g f	D	D	D	D	D	D	D	D
32213 322130	Paperboard mills	-	3	3	f	D D	D D	D D	D D	D D	D D	D D	D D

terms,	and geographical definitions, see note at	end			ation on geo	graphic areas	followed by *,	see Append	lix D. For mea	ning of abbrevia	ations and symbo	ols, see introduct	tory text]
			establish	.II nments ²	All em	ployees	Pro	duction worl	kers				
NAICS code	Geographic area and industry	E ¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA—Con.												
322 3222	Paper manufacturing—Con. Converted paper product manufacturing	2	35	16	1 559	51 000	1 105	2 166	31 155	125 669	165 390	293 358	7 360
32221	Paperboard container manufacturing		14	8	f	D	D	D	D	D	D	D	3 564
322211	Corrugated and solid fiber box manufacturing	_	10	6	421	14 225	297	578	8 154	32 003	62 451	94 086	3 304 D
322212	Folding paperboard box manufacturing		2	1	421 C	14 223 D	297 D	5/6 D	D 134	32 003 D	02 431 D	94 000 D	D
32222	Paper bag and coated and treated paper manufacturing	7	6	4	e	D	D	D	D	D	D	D	1 231
322222	Coated and laminated paper manufacturing	9	4	3	309	9 902	148	303	5 516	34 808	24 536	60 248	D
32223	Stationery product manufacturing	2	8	2 2	С	D	D	D	D	D	D	D	1 908
322232 32229	Other converted paper product	1	5		146	5 382	112	207	3 248	9 573	10 138	19 804	D
322291	manufacturing	1	7 2	2	e c	D D	D D	D D	D D	D D	D D	D D	657 D
323	Printing and related support												
3231	activities Printing and related support	1	409	48	4 251	126 818	3 104	5 844	78 349	285 383	175 595	455 280	28 835
00044	activities	1	409	48	4 251	126 818	3 104	5 844	78 349	285 383	175 595	455 280	28 835
32311 323110	Printing	1	382 171	45 26	4 055 2 453	121 276 74 417	2 946	5 550 3 492	74 942	275 566 174 976	173 320	443 195	28 604
323113 323114	printing	1 1 5	66 74	10 1	644 301	19 584 8 535	1 865 436 189	816 322	49 234 9 322 4 862	42 505 18 046	112 670 22 214 8 074	282 664 64 526 26 096	25 435 1 374 522
323116 323119 32312	Manifold business forms printing	2 2 3	8 40 27	1 3 3	194 244 196	5 102 6 975 5 542	149 141 158	344 269 294	3 712 3 213 3 407	11 376 13 879 9 817	11 822 9 180 2 275	23 186 22 764 12 085	134 399 231
323121	Tradebinding and related work	1	9	3	123	2 457	107	217	1 628	4 843	1 075	5 922	106
324	Petroleum and coal products manufacturing	1	51	15	2 691	138 909	1 781	3 582	83 317	359 650	5 017 481	5 335 964	136 388
3241	Petroleum and coal products manufacturing	1	51	15	2 691	138 909	1 781	3 582	83 317	359 650	5 017 481	5 335 964	136 388
32411 324110 32412	Petroleum refineries	1	6 6	5 5	1 680 1 680	103 252 103 252	1 102 1 102	2 331 2 331	60 939 60 939	230 069 230 069	4 753 747 4 753 747	4 943 120 4 943 120	127 256 127 256
324121	manufacturing	-	31	7	697	24 081	449	767	15 180	73 800	123 669	195 928	5 781
324122	block manufacturing Asphalt shingle and coating materials manufacturing	1	24 7	4	399 298	13 922 10 159	211 238	380 387	7 475 7 705	41 966 31 834	64 553 59 116	104 597 91 331	D D
32419	Other petroleum and coal products manufacturing	_	14	3	314	11 576	230	484	7 198	55 781	140 065	196 916	3 351
324191	Petroleum lubricating oil and grease manufacturing	_	12	2	C C	11 370 D	230 D	404 D	7 190 D	33 781 D	D	190 910 D	3 331 D
325	Chemical manufacturing	1		41	3 284	155 981	1 902	3 832	76 780	903 839	835 764	1 748 106	37 754
3251	Basic chemical manufacturing	_	33	9	658	33 629	384	813	16 221	180 383	138 105	316 037	D
32518	Other basic inorganic chemical manufacturing	1	18	7	e	D	D	D	D	D	D	D	D
325188	All other basic inorganic chemical manufacturing	2	17	6	299	13 777	187	371	7 429	54 622	28 368	78 913	1 857
32519	Other basic organic chemical manufacturing	_	5	2	254	13 470	170	383	7 455	69 670	73 523	146 835	D
325199	All other basic organic chemical manufacturing	-	5	2	254	13 470	170	383	7 455	69 670	73 523	146 835	D
3252	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	_	7	6	288	12 404	189	376	6 878	45 416	146 402	189 518	1 660
32521	Resin and synthetic rubber manufacturing	_	7	6	288	12 404	189	376	6 878	45 416	146 402	189 518	1 660
325211	Plastics material and resin manufacturing	-	7	6	288	12 404	189	376	6 878	45 416	146 402	189 518	1 660
3253	Pesticide, fertilizer, and other agricultural chemical manufacturing	_	7	4	e	D	D	D	D	D	D	D	16 678
32531 325311	Fertilizer manufacturing Nitrogenous fertilizer manufacturing	-	7 6	4	e e	D D	D D	D D	D D	D D	D D	D D	16 678 D
3254	Pharmaceutical and medicine manufacturing	8	14	3	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing	8	14	3	f	D	D	D	D	D	D	D	D
325411	Medicinal and botanical manufacturing	_	4	1	С	D	D	D	D	D	D	D	26
325412	Pharmaceutical preparation manufacturing	9		1	e	D	D	D	D	D	D	D	D

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			establisl	ll hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA—Con.												-
325 3255	Chemical manufacturing – Con. Paint, coating, and adhesive manufacturing	1	20	7	470	20 883	188	378	5 461	64 013	77 845	141 251	1 400
32551	Paint and coating		45	_	000	40 405	450	044	4.070	40.044	44.050	00.005	4 000
325510	manufacturing Paint and coating manufacturing	_	15 15	5 5	323 323	13 495 13 495	152 152	314 314	4 273 4 273	42 211 42 211	44 956 44 956	86 995 86 995	1 062 1 062
32552 325520	Adhesive manufacturing Adhesive manufacturing	2	5 5	2 2	147 147	7 388 7 388	36 36	64 64	1 188 1 188	21 802 21 802	32 889 32 889	54 256 54 256	338 338
3256	Soap, cleaning compound, and toilet preparation manufacturing.	5	19	4	С	D	D	D	D	D	D	D	D
32561	Soap and cleaning compound manufacturing	7	15	3	С	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing	1	30	8	673	31 311	388	808	15 113	328 297	125 523	454 850	D
32599 325992	All other chemical product and preparation manufacturing Photographic film, paper,	-	27	8	666	31 081	384	801	15 009	327 713	124 657	453 400	D
325998	plate, and chemical manufacturing All other miscellaneous	-	6	2	е	D	D	D	D	D	D	D	D
	chemical product and preparation manufacturing .	-	20	6	е	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing	-	165	61	13 153	527 575	10 658	21 524	404 133	1 521 300	1 368 153	2 879 286	145 109
3261	Plastics product manufacturing	-	130	52	6 149	200 204	4 517	8 835	128 259	739 298	666 748	1 406 274	89 061
32611	Plastics packaging materials and unlaminated film and sheet manufacturing	_	20	10	1 623	58 731	1 268	2 448	39 453	199 688	254 719	453 254	50 094
326111 326112	Plastics bag manufacturing Plastics packaging film and sheet (including laminated)	_	4	3	559	17 705	465	765	13 129	36 302	60 059	93 446	D
326113	manufacturing Unlaminated plastics film and sheet (except packaging)	1	3	1	132	3 430	114	236	2 370	8 506	13 804	22 799	D
32612	manufacturing Plastics pipe, pipe fitting, and unlaminated profile shape	-	13	6	932	37 596	689	1 447	23 954	154 880	180 856	337 009	42 565
326122	manufacturing Plastics pipe and pipe fitting	1	19	11	783	24 186	615	1 173	16 582	59 541	70 531	131 248	D
32614	manufacturing Polystyrene foam product	-	12	10	723	22 769	564	1 081 D	15 519	55 774 D	68 504	125 495 D	3 588 D
326140	manufacturing Polystyrene foam product manufacturing	_	5 5	2	c c	D D	D D	D	D D	D	D D	D	D
32615	Urethane and other foam product (except polystyrene) manufacturing	1	9	2	210	6 386	170	334	4 289	100 762	15 653	116 108	3 546
326150	Urethane and other foam product (except polystyrene) manufacturing	1	9	2	210	6 386	170	334	4 289	100 762	15 653	116 108	3 546
32616 326160	Plastics bottle manufacturing Plastics bottle manufacturing	-	2	2	c	D D	D D	D	D D	D	D	D	D
32619	Other plastics product manufacturing	1	72	25	3 242	102 880	2 215	4 426	62 127	349 638	298 230	648 797	D
326191	Plastics plumbing fixture manufacturing	_	9	4	С	D	D	D	D	D	D	D	D
326192 326199	Resilient floor covering manufacturing All other plastics product	-	1	1	С	D	D	D	D	D	D	D	D
	manufacturing	2	62	20	2 822	84 314	1 875	3 659	47 849	287 905	205 628	494 424	20 333
3262 32621	Rubber product manufacturing Tire manufacturing	_	35 15	9	7 004 6 217	327 371 305 358	6 141 5 542	12 689 11 500	275 874 262 166	782 002 730 180	701 405 672 804	1 473 012 1 392 669	56 048 53 873
326211	Tire manufacturing (except retreading)	_	4	4	6 152	303 757	5 495	11 409	261 167	726 390	666 209	1 382 429	53 718
32629	Other rubber product manufacturing	2	20	4	787	22 013	599	1 189	13 708	51 822	28 601	80 343	2 175
326291	Rubber product manufacturing for mechanical use	2	11	3	703	19 343	531	1 043	11 981	47 697	24 469	72 112	2 089
327	Nonmetallic mineral product manufacturing	1	277	73	7 390	275 873	6 065	12 158	205 760	879 800	594 636	1 470 630	63 631
3271	Clay product and refractory manufacturing	1	22	12	922	29 472	656	1 333	19 118	109 742	39 356	144 290	2 520
32711 327112	Pottery, ceramics, and plumbing fixture manufacturing	2	7	3	144	3 804	107	227	2 281	7 137	4 382	11 333	685
JE1112	earthenware, and other pottery product manufacturing	2	6	3	С	D	D	D	D	D	D	D	D
32712	Clay building material and refractories manufacturing	1	15	9	778	25 668	549	1 106	16 837	102 605	34 974	132 957	1 835
327121	Brick and structural clay tile manufacturing	3	7	5	403	12 707	325	649	9 554	51 787	11 097	62 592	D
327122	Ceramic wall and floor tile manufacturing	_	5	1	С	D	D	D	D	D	D	D	D
327124	Clay refractory manufacturing	_	2	2	c	D	D	D	D	D	D	D	D

terris,	and geographical definitions, see note at	enu	establis	JI		ployees		duction work		illing of abbrevia	alloris and symbol	ns, see introduc	lory text]
NAICS			establis										
code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA—Con.												-
327	Nonmetallic mineral product												
3272	manufacturing—Con. Glass and glass product												
00704	manufacturing	-	26	12	2 621	121 137	2 296	4 636	99 592	338 999	234 248	577 133	29 329
32721	Glass and glass product manufacturing	_	26	12	2 621	121 137	2 296	4 636	99 592	338 999	234 248	577 133	29 329 D
327211 327212	Flat glass manufacturing Other pressed and blown glass and glassware manufacturing	_	3	1	f	D D	D	D	D D	D D	D D	D D	D
327213	Glass container manufacturing	_	3	3	857	43 051	760	1 622	36 574	173 994	89 274	264 442	13 642
327215	Glass product manufacturing made of purchased glass	2	19	7	e	40 001 D	, 00 D	D D	D 00 074	D	D	D	D
3273	Cement and concrete product	_				_	_	_	_		_		_
00704	manufacturing	1	194	40	2 914	93 210	2 386	4 737	64 369	316 616	223 759	536 895	29 306
32731 327310	Cement manufacturing Cement manufacturing	_	4 4	3 3	376 376	18 599 18 599	276 276	554 554	9 777 9 777	93 763 93 763	35 865 35 865	126 791 126 791	3 561 3 561
32732	Ready-mix concrete manufacturing	1	136	20	1 308	39 188	1 158	2 215	32 277	128 638	138 003	266 678	16 399
327320 32733	Ready-mix concrete manufacturing Concrete pipe, brick, and block	1	136	20	1 308	39 188	1 158	2 215	32 277	128 638	138 003	266 678	16 399
327331	manufacturing Concrete block and brick	2	18	7	313	9 645	243	479	6 596	27 911	16 603	42 919	2 250
327332	manufacturing	4	11	3	140	4 338	108	193	2 850	9 994	8 634	17 335	743
32739	manufacturing Other concrete product	1	7	4	173	5 307	135	286	3 746	17 917	7 969	25 584	1 507
327390	manufacturing Other concrete product	3	36	10	917	25 778	709	1 489	15 719	66 304	33 288	100 507	7 096
	manufacturing	3	36	10	917	25 778	709	1 489	15 719	66 304	33 288	100 507	7 096
3274	Lime and gypsum product manufacturing	1	8	5	648	23 171	505	1 007	16 901	80 509	67 318	148 835	1 150
32742	Gypsum product manufacturing	1	8	5	648	23 171	505	1 007	16 901	80 509	67 318	148 835	1 150
327420	Gypsum product manufacturing	1	8	5	648	23 171	505	1 007	16 901	80 509	67 318	148 835	1 150
3279	Other nonmetallic mineral product manufacturing	2	27	4	285	8 883	222	445	5 780	33 934	29 955	63 477	1 326
32799	All other nonmetallic mineral product manufacturing	2	27	4	285	8 883	222	445	5 780	33 934	29 955	63 477	1 326
327999	All other miscellaneous nonmetallic mineral product	_											
331	manufacturing	2	9 78	1 38	128 4 450	4 348 163 148	89 3 531	185 7 266	2 485	23 181 332 200	23 264 567 404	46 145 901 212	1 009 19 453
3311	Primary metal manufacturing Iron and steel mills and ferroalloy	'	/0	30	4 450	103 146	3 331	7 200	113 566	332 200	367 404	901 212	19 455
	manufacturing	-	6	3	423	20 792	322	666	13 837	45 050	76 954	122 983	D
33111 331111	Iron and steel mills and ferroalloy manufacturing Iron and steel mills	_	6 5	3	423 e	20 792 D	322 D	666 D	13 837 D	45 050 D	76 954 D	122 983 D	D D
3312	Steel product manufacturing from purchased steel	_	19	13	1 872	69 502	1 513	3 181	48 486	137 427	261 510	399 261	7 936
33121	Iron and steel pipe and tube manufacturing from purchased												
331210	steel	-	8	8	1 001	38 542	774	1 629	25 242	59 429	161 786	222 545	5 689
33122	purchased steel	-	8	8	1 001	38 542	774	1 629	25 242	59 429	161 786	222 545	5 689
331222	purchased steel	_	11 11	5 5	871 871	30 960 30 960	739 739	1 552 1 552	23 244 23 244	77 998 77 998	99 724 99 724	176 716 176 716	2 247 2 247
3313	Alumina and aluminum production and processing	5	7	3	С	D	D	D	D	D	D	D	1 442
33131	Alumina and aluminum production and processing	5	7	3	c	D	D	D	D	D	D	D	1 442
331319	Other aluminum rolling and drawing	9	1	1	c	D	D	D	D	D	D	D	1 442 D
3314	Nonferrous metal (except	9	'	'		D		D		U		D	D
5514	aluminum) production and processing	_	7	2	f	D	D	D	D	D	D	D	D
33142	Copper rolling, drawing, extruding, and alloying		2	2	f	D	D	D	D	D	D	D	D
331421	Copper rolling, drawing, and extruding	_	1	1	e	D	D	D	D	D	D	D	D
331422	Copper wire (except mechanical) drawing	_	' 1	1	c	D	D	D	D	D	D	D	D
3315	Foundries	3	39	17	1 227	38 762	951	1 851	27 701	91 219	46 138	136 211	5 508
33151	Ferrous metal foundries	2	20	12	882	27 768	695	1 316	20 300	66 869	32 610	98 638	4 741
331511 331512 331513	Iron foundries	2	12 4	6 4	441 c	15 272 D	375 D	662 D	12 632 D	45 165 D	19 159 D	63 976 D	D 2 480
	investment)	2	l 4	2	l e	D	l Di	DI	l D	D	l DI	D	D

	l	T	T table. I	OI IIIIOIIII	I	grapriic areas	ionowed by ,	эсс Аррепа	iix D. Tormee	I abbrevie	alions and symbo	513, 366 II II Oddc	tory text]
			establisl	II nments ²	All em	ployees	Pro	oduction work	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA—Con.												
331 3315	Primary metal manufacturing—Con. Foundries—Con.												
33152 331524	Nonferrous metal foundries	5	19	5	345	10 994	256	535	7 401	24 350	13 528	37 573	767
	Aluminum foundries (except die-casting)	5	10	3	158	4 957	101	222	3 202	9 550	4 618	13 862	241
331525	Copper foundries (except diecasting)	8	4	1	101	2 506	83	162	1 767	6 400	3 434	9 835	207
332	Fabricated metal product manufacturing	2	r999	^r 248	^r 24 128	r846 456	^r 18 144	r36 205	r550 269	r2 093 965	'1 798 970	'3 867 427	¹ 95 573
3321	Forging and stamping	6	28	11	906	26 833	672	1 250	18 535	67 442	53 475	120 832	D
33211 332115	Forging and stamping Crown and closure	6	28	11	906	26 833	672	1 250	18 535	67 442	53 475	120 832	D
332116	manufacturing	9 7	1 14	1 7	c 424	D 11 466	D 291	D 551	D 7 168	D 31 149	D 22 200	D 53 531	D 2 015
332117	Powder metallurgy part manufacturing	_	3	3	224	6 854	160	292	4 806	15 746	6 575	22 140	D
3323	Architectural and structural metals manufacturing	1	^r 239	^r 66	^r 5 894	r198 440	^r 4 283	^r 8 451	r121 173	r501 900	^r 404 944	r906 998	r19 793
33231	Plate work and fabricated			00	0 00 .	100 110	. 200	0 .0.	12	00.000		000 000	10 700
332311	structural product manufacturing Prefabricated metal building	1	133	39	r3 115	r114 635	r2 108	r4 347	r65 798	r277 233	r247 667	r524 452	r10 801
332312	and component manufacturing Fabricated structural metal	1	21	7	611	19 168	431	816	11 303	48 413	53 594	102 171	1 447
332313	manufacturing Plate work manufacturing	1 r2	85 27	21 11	1 547 r957	56 674 r38 793	1 107 r570	2 272 r1 259	33 577 r20 918	142 792 r86 028	126 821 r67 252	271 158 r151 123	3 893 r5 461
33232	Ornamental and architectural metal products manufacturing	1	r106	^r 27	^r 2 779	r83 805	^r 2 175	r4 104	r55 375	r224 667	r157 277	r382 546	r8 992
332321	Metal window and door manufacturing	1	r14	r8	r1 249	r37 631	r985	r1 882	r24 682	113 521	r84 304	r198 825	r3 770
332322	Sheet metal work manufacturing	2	62	14	847	28 805	608	1 159	17 211	60 529	48 935	109 235	3 569
332323	Ornamental and architectural metal work manufacturing	_	30	5	683	17 369	582	1 063	13 482	50 617	24 038	74 486	1 653
3324	Boiler, tank, and shipping container manufacturing	1	71	46	4 465	176 918	3 211	6 436	109 770	393 158	532 950	923 788	17 178
33241	Power boiler and heat												
332410	exchanger manufacturing Power boiler and heat	3	38	29	2 377	92 807	1 736	3 605	58 556	193 736	165 057	357 320	11 549
33242	exchanger manufacturing Metal tank (heavy gauge)	3	38	29	2 377	92 807	1 736	3 605	58 556	193 736	165 057	357 320	11 549
332420	manufacturing	-	23	13	1 419	56 338	891	1 608	28 643	83 560	144 118	229 223	2 147
33243	manufacturing	_	23	13	1 419	56 338	891	1 608	28 643	83 560	144 118	229 223	2 147
332431	manufacturing Metal can manufacturing	_	10 4	4 3	669 e	27 773 D	584 D	1 223 D	22 571 D	115 862 D	223 775 D	337 245 D	3 482 D
332439	Other metal container manufacturing	1	6	1	е	D	D	D	D	D	D	D	D
3325	Hardware manufacturing	-	8	2	g	D	D	D	D	D	D	D	D
33251 332510	Hardware manufacturing Hardware manufacturing	_	8 8	2 2	g g	D D	D D	D D	D D	D D	D D	D D	D D
3326	Spring and wire product manufacturing	_	31	8	1 078	31 238	887	1 860	24 351	69 121	80 432	150 508	5 834
33261	Spring and wire product manufacturing	_	31	8	1 078	31 238	887	1 860	24 351	69 121	80 432	150 508	5 834
332611	Spring (heavy gauge) manufacturing	_	4	2	118	2 876	87	170	2 044	3 916	6 957	10 747	D
332612	Spring (light gauge) manufacturing	_	4	2	102	3 293	72	155	2 031	5 554	1 890	7 598	D
332618	Other fabricated wire product manufacturing	_	23	4	858	25 069	728	1 535	20 276	59 651	71 585	132 163	D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing	4	389	45	3 704	129 676	2 838	5 362	90 654	247 128	116 250	357 990	15 776
33271	Machine shops	3	356	36	2 906	98 072	2 232	4 164	67 529	185 596	75 297	258 157	12 004
332710 33272	Machine shops Turned product and screw, nut,	3	356	36	2 906	98 072	2 232	4 164	67 529	185 596	75 297	258 157	12 004
332721	and bolt manufacturing Precision turned product	5	33	9	798	31 604	606	1 198	23 125	61 532	40 953	99 833	3 772
332722	manufacturing Bolt, nut, screw, rivet, and	9	28	6	485	16 095	353	622	11 686	29 391	16 799	45 225	1 545
3328	washer manufacturing Coating, engraving, heat treating,		5	3	313	15 509	253	576	11 439	32 141	24 154	54 608	2 227
33281	and allied activities Coating, engraving, heat	3	77	23	1 468	50 563	1 222	2 446	37 692	111 496	77 879	191 351	8 298
332811 332812	treating, and allied activities Metal heat treating	3 -	77 10	23 5	1 468 333	50 563 11 349	1 222 307	2 446 685	37 692 10 167	111 496 30 878	77 879 34 272	191 351 67 241	8 298 D
332813	services to manufacturers Electroplating, plating,	6	33	11	713	25 333	586	1 159	18 029	55 758	36 515	92 109	4 934
	polishing, anodizing, and coloring	4	34	7	422	13 881	329	602	9 496	24 860	7 092	32 001	D

terms,	and geographical definitions, see note at	l end	A							illing of apprevia	alions and symbo	ois, see introduct	lory text]
			establish	nments ²	All em	ployees	Pro	duction worl	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA—Con.												
332	Fabricated metal product												
3329	manufacturing—Con. Other fabricated metal product manufacturing	2	143	47	5 428	198 988	3 963	8 110	120 944	540 761	410 358	931 888	20 884
33291 332911	Metal valve manufacturing	-	37	15	2 523	101 013	1 879	3 987	63 129	324 643	255 294	559 809	13 283
332912	manufacturing Fluid power valve and hose	-	21	12	1 267	55 369	806	1 770	26 541	187 614	139 636	304 480	7 792
332913	fitting manufacturing	-	6	1	е	D	D	D	D	D	D	D	713
332919	trim manufacturing Other metal valve and pipe	-	2	1	f	D	D	D	D	D	D	D	D
33299	fitting manufacturing All other fabricated metal	1	8	1	С	D	D	D	D	D	D	D	D
332991	product manufacturing Ball and roller bearing	4	106	32	2 905	97 975	2 084	4 123	57 815	216 118	155 064	372 079	7 601
332996	manufacturing Fabricated pipe and pipe	5	39	1 15	152 1 274	5 913 44 407	122 979	182 2 003	4 474 26 656	4 861 110 856	17 436 70 123	23 044 182 592	733 3 136
332999	fitting manufacturing All other miscellaneous fabricated metal product manufacturing	3	46	15	1 357	44 194	890	1 758	24 486	91 431	62 638	153 224	3 638
333	Machinery manufacturing	1	409	145	24 001	883 748	14 487	28 330	436 605	2 401 784	2 740 365	5 163 094	108 508
3331	Agriculture, construction, and mining machinery	ľ	400	140	24 001	000 740	14 407	20 000	400 000	2 401 704	2 740 000	0 100 004	100 000
33311	manufacturing	1	119	43	6 653	256 479	4 333	8 093	136 063	653 476	790 409	1 449 626	33 996
333111	manufacturing Farm machinery and	4	22	2	С	D	D	D	D	D	D	D	391
33312	equipment manufacturing Construction machinery	4	22	2	С	D	D	D	D	D	D	D	391
333120	manufacturing	3	23	12	2 573	95 750	1 584	3 060	47 237	274 651	287 447	552 798	8 705
33313	manufacturing Mining and oil and gas field	3	23	12	2 573	95 750	1 584	3 060	47 237	274 651	287 447	552 798	8 705
333131	machinery manufacturing Mining machinery and	-	74	29	h	D	D	D	D	D	D	D	24 900
333132	equipment manufacturing Oil and gas field machinery and equipment manufacturing	_	6 68	3 26	3 370	D 134 506	D 2 205	D 4 101	72 310	D 265 838	D 459 085	742 449	4 541 20 359
3332	Industrial machinery manufacturing	_	40	15	3 855	122 405	1 329	2 485	45 747	249 558	201 049	447 767	23 703
33322	Plastics and rubber industry						_						_
333220	machinery manufacturing Plastics and rubber industry	-	3	2	е	D D	D D	D D	D	D D	D D	D D	D D
33329	machinery manufacturing Other industrial machinery manufacturing	1	37	13	e h	D	D	D	D D	D	D	D	D
333294	Food product machinery manufacturing	Ė	3	2	c	D	D	D	D	D	D	D	D
333298	All other industrial machinery manufacturing	1	25	11	3 205	93 562	954	1 737	33 176	195 115	161 816	354 253	22 026
3333	Commercial and service industry machinery manufacturing	_	26	7	1 303	58 802	657	1 366	18 638	165 847	154 583	313 796	5 287
33331	Commercial and service industry machinery												
333313	manufacturing	-	26	7	1 303	58 802	657	1 366	18 638	165 847	154 583	313 796	5 287
333315	manufacturing Photographic and photocopying equipment	-	1	1	е	D	D	D	D	D	D	D	D
333319	manufacturing Other commercial and	-	4	1	С	D	D	D	D	D	D	D	D
	service industry machinery manufacturing	_	18	5	889	38 677	408	861	13 553	93 580	93 464	187 297	1 155
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	1	39	19	4 155	139 420	3 080	6 071	86 836	377 900	395 220	778 388	9 630
33341	Ventilation, heating, air- conditioning, and commercial			. 3			2 22	, <u>.</u>				. 2 230	
333412	refrigeration equipment manufacturing	1	39	19	4 155	139 420	3 080	6 071	86 836	377 900	395 220	778 388	9 630
333412	and blower manufacturing Heating equipment (except	-	3	2	е	D	D	D	D	D	D	D	D
333415	warm air furnaces) manufacturing Air-conditioning and warm air	7	6	2	125	4 533	83	164	2 161	12 164	7 850	20 014	265
	heating equipment and commercial and industrial refrigeration equipment manufacturing	1	23	14	3 563	118 957	2 613	5 124	73 848	333 705	357 480	693 638	9 207

	T	Cilu	T table. I	OI IIIIOIIII	I GIOTI OTT GEO	grapriic areas	onowed by ,	3cc Append	aix D. Tol lilec	I abbievie	allons and symbo	713, 366 111110000	lory text]
			A establish	II nments ²	All em	ployees	Pro	duction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
		_			110111001	(\$1,000)		(1,000)	(ψ.,σσσ)	(\$1,000)	(\$1,000)	(\$1,000)	(41,000)
	OKLAHOMA—Con.												
333 3335	Machinery manufacturing—Con. Metalworking machinery												
00054	manufacturing	1	61	9	973	27 165	759	1 610	19 097	68 517	48 998	117 354	5 884
33351	Metalworking machinery manufacturing	1	61	9	973	27 165	759	1 610	19 097	68 517	48 998	117 354	5 884
333511	Industrial mold manufacturing Machine tool (metal cutting	1	16	4	585	14 355	507	1 117	10 530	38 960	37 601	76 758	2 797
333512	Machine tool (metal cutting types) manufacturing	_	2	2	c	D	D	D	D	D	D	D	D
333515	Cutting tool and machine tool accessory manufacturing	4	21	1	150	5 282	108	208	3 719	12 845	4 625	16 914	2 849
3336	Engine, turbine, and power transmission equipment manufacturing	_	12	6	1 284	47 955	924	2 089	26 892	216 967	553 837	775 479	5 072
33361	Engine, turbine, and power												
333611	transmission equipment manufacturing Turbine and turbine generator set units	-	12	6	1 284	47 955	924	2 089	26 892	216 967	553 837	775 479	5 072
333618	manufacturing Other engine equipment	-	3	3	е	D	D	D	D	D	D	D	D
	manufacturing	-	7	3	f	D	D	D	D	D	D	D	3 318
3339	Other general purpose machinery manufacturing	2	112	46	5 778	231 522	3 405	6 616	103 332	669 519	596 269	1 280 684	24 936
33391	Pump and compressor manufacturing	2	37	19	3 314	134 802	1 779	3 479	51 148	473 237	417 107	893 628	16 745
333911	Pump and pumping equipment manufacturing	3	24	13	2 569	105 639	1 347	2 727	38 736	401 412	321 586	719 720	12 669
333912	Air and gas compressor manufacturing	_	13	6	745	29 163	432	752	12 412	71 825	95 521	173 908	4 076
33392	Material handling equipment	2	21	8	893	36 173		1 046	18 314	76 136	69 829	151 996	2 434
333923	manufacturing Overhead traveling crane, hoist, and monorail system manufacturing	2	10	6	672	27 853	565 431	789	14 093	55 809	57 090	118 739	1 891
333924	Industrial truck, tractor,		10	0	0/2	27 033	431	709	14 093	33 809	37 090	110 739	1 091
00000	trailer, and stacker machinery manufacturing	1	8	1	123	4 692	77	145	2 471	9 629	5 288	15 011	104
33399	All other general purpose machinery manufacturing	2	54	19	1 571	60 547	1 061	2 091	33 870	120 146	109 333	235 060	5 757
333994	Industrial process furnace and oven manufacturing	7	7	4	278	12 393	194	396	6 847	16 979	17 661	38 098	870
333996	Fluid power pump and motor manufacturing	_	4	2	е	D	D	D	D	D	D	D	D
333999	All other miscellaneous general purpose machinery manufacturing	_	28	7	688	23 578	424	706	10 517	43 775	41 863	88 681	1 357
334	Computer and electronic product manufacturing	_	123	37	7 811	280 478	4 228	8 147	114 920	595 452	820 494	1 407 782	24 154
3341	Computer and peripheral equipment manufacturing	-	8	3	g	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing	_	8	3	g	D	D	D	D	D	D	D	D
334112	Computer storage device manufacturing	_	2	1	g	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment manufacturing	_	6	2	c	D	D	D		D	D	D	D
3342	Communications equipment manufacturing	_	16	5	2 463	84 631	1 368	2 586	42 223	229 504	510 010	742 434	D
33421	Telephone apparatus			_	_	-							D
334210	manufacturing	_	2	1	g	D	D	D	D	D	D	D	
33422	manufacturing	_	2	1	g	D	D	D	D	D	D	D	D
334220	broadcasting and wireless communications equipment manufacturing Radio and television	_	9	2	f	D	D	D	D	D	D	D	2 173
	broadcasting and wireless communications equipment												
33429	manufacturing Other communications	-	9	2	f	D	D	D	D	D	D	D	2 173
334290	equipment manufacturing Other communications	1	5	2	С	D	D	D	D	D	D	D	599
	equipment manufacturing	1	5	2	С	D	D	D	D	D	D	D	599
3344	Semiconductor and other electronic component manufacturing	_	42	15	2 279	69 011	1 592	3 065	36 954	220 913	203 005	404 324	D
33441	Semiconductor and other electronic component manufacturing		42	15	2 279	69 011	1 592	3 065	36 954	220 913	203 005	404 324	D
334412	Bare printed circuit board manufacturing	2	9	3	2 2/9 C	09 011 D	1 392 D	3 003 D	36 934 D	220 913 D	203 003 D	404 324 D	111
334417	Electronic connector manufacturing	-	3	1	c	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly)	-	3	'		٥		D	"			D	U
334419	manufacturing Other electronic component manufacturing	-	8 16	4 6	754 1 065	27 715 28 775	442 796	921 1 426	12 131 18 671	131 144 42 642	153 227 25 441	262 260 71 161	3 149 D
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NAICS code Geographic area and industry Geographic area and industry E¹ Total more Number³ (\$1,000) Number⁴ (1,000) (\$1,000)				
code Geographic area and industry employ- ees or Payroll Hours Wages				
V V V	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
OKLAHOMA—Con.				
334 Computer and electronic product manufacturing—Con. 3345 Navigational, measuring, electromedical, and control instruments manufacturing 2 51 13 g D D D	D	D	D	D
33451 Navigational, measuring,				
electromedical, and control instruments manufacturing 2 51 13 g D D D D D D D D D D D D D D D D D D	D	D	D	D
variables - 10 3 469 21 820 219 462 6 875 Instrument manufacturing for measuring and testing electricity and electrical	26 398	27 702	63 416	837
Signals	27 900 16 424	14 054 14 553	38 865 30 875	671 668
335 Electrical equipment, appliance, and	369 578	482 783	860 194	18 972
3351 Electric lighting equipment				
manufacturing	D D	D D	D D	D D
3352 Household appliance				
manufacturing - 8 3 g D D D D 33522 Major appliance manufacturing - 5 2 g D D D D	D D	D D	D D	D D
335221 Household cooking appliance manufacturing – 5 2 g D D D D	D	D	D	D
3353 Electrical equipment manufacturing	176 420	150 283	323 056	D
33531 Electrical equipment	176 420	150 283	323 056	D
specialty transformer	8 532	5 403	14 046	D
manufacturing - 16 8 1 091 33 094 867 1 598 21 501 335313 Switchgear and switchboard	118 503	104 999	223 552	2 087
apparatus manufacturing - 8 3 311 10 630 200 395 5 451 335314 Relay and industrial control manufacturing 5 10 3 158 6 053 81 144 1 686	33 015 16 370	34 361 5 520	63 889 21 569	478 D
3359 Other electrical equipment and component manufacturing	23 628	64 560	94 374	D
33593 Wiring device manufacturing 3 1 c D D D	D	D	D	D
335932 Noncurrent-carrying wiring device manufacturing	D	D	D	D
manufacturing	D	D 0.50 700	D	116
manufacturing	2 969 443 D	3 950 763 D	6 889 208 D	135 580 D
33611 Automobile and light duty motor vehicle manufacturing – 4 1 h D D D D	D	D	D	D
336112 Light truck and utility vehicle manufacturing – 2 1 h D D D D	D	D	D	D
33612 Heavy duty truck	D	D	D	D
336120 Heavy duty truck manufacturing – 3 2 f D D D D D 3362 Motor vehicle body and trailer	D	D	D	D
manufacturing 66 32 h D D D	D	D	D	D
33621 Motor vehicle body and trailer manufacturing – 66 32 h D D D D 336211 Motor vehicle body	D	D	D	D
manufacturing	D D	D D	D D	D D
336213 Motor home manufacturing - 1 1 c D D D 336214 Travel trailer and camper manufacturing - 30 16 2 666 70 751 2 288 3 390 53 854	D 141 041	D 125 631	D 278 786	D D
3363 Motor vehicle parts manufacturing – 61 23 6 023 197 690 4 700 9 726 137 101	562 645	723 184	1 266 994	29 603
33631 Motor vehicle gasoline engine and engine parts	_	_	_	_
manufacturing 16 2 e D D D 336312 Gasoline engine and engine parts manufacturing 14 1 284 11 694 226 315 8 113	D 33 456	D 38 854	72 446	D 617
33632 Motor vehicle electrical and electronic equipment				
manufacturing	154 677 154 677	125 226 125 226	277 380 277 380	2 428 2 428

	and geographical definitions, see note at		A							imig or approvid	and dymb	, , , , , , , , , , , , , , , , , , ,	,
			establish	nments ²	All em	ployees	Pro	duction worl	kers				
NAICS code	Geographic area and industry			With 20 em- ploy-		Doumell		Have	\Massa	Volum addad	Total cost of	Total value of	Total capital expendi-
		E ¹	Total	ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	materials (\$1,000)	shipments (\$1,000)	tures (\$1,000)
	OKLAHOMA—Con.												
336	Transportation equipment manufacturing—Con.												
3363	Motor vehicle parts manufacturing—Con.												
33633	Motor vehicle steering and suspension component (except spring)					_			_	_	_		_
336330	manufacturing Motor vehicle steering and suspension component	_	3	2	g	D	D	D	D	D	D	D	D
33635	(except spring) manufacturing Motor vehicle transmission and power train parts	-	3	2	g	D	D	D	D	D	D	D	D
336350	manufacturing	-	10	6	1 345	42 553	1 024	2 244	27 366	121 075	131 975	241 666	7 694
33636	manufacturing Motor vehicle seating and	_	10	6	1 345	42 553	1 024	2 244	27 366	121 075	131 975	241 666	7 694
336360	interior trim manufacturing Motor vehicle seating and interior trim manufacturing	_	3	1	е	D D	D D	D D	D D	D D	D D	D D	D D
33639	Other motor vehicle parts manufacturing	1	14	6	e 1 037	42 493	703	1 529	22 273	35 814	161 856	197 574	2 936
336399	All other motor vehicle parts manufacturing	1	14	6	1 037	42 493	703	1 529	22 273	35 814	161 856	197 574	2 936
3364	Aerospace product and parts manufacturing	-	49	26	5 150	230 657	3 571	7 223	166 308	509 795	610 195	1 101 096	29 485
33641	Aerospace product and parts manufacturing	_	49	26	5 150	230 657	3 571	7 223	166 308	509 795	610 195	1 101 096	29 485
336411 336412	Aircraft manufacturing Aircraft engine and engine parts manufacturing	3	7 16	4 10	815 846	39 772 35 777	682 615	1 517 1 252	31 586 21 659	88 381 74 714	55 176 52 392	153 704 126 105	D D
336413	Other aircraft parts and auxiliary equipment manufacturing	_	26	12	3 489	155 108	2 274	4 454	113 063	346 700	502 627	821 287	21 983
3366	Ship and boat building	1	7	2	С	D	D	D	D	D	D	D	227
33661	Ship and boat building	1	7	2	С	D	D	D	D	D	D	D	227
336612 3369	Boat building Other transportation equipment	2	5 9	1	С	D D	D D	D D	D D	D D	D D	D D	D D
33699	manufacturing Other transportation equipment		9	'	С	D	D	D	D	U	D	D	D
336999	manufacturing	2	9	1	c	D D	D D	D D	D D	D D	D D	D D	D D
337	Furniture and related product												
3371	Furniture and related product manufacturing Household and institutional	2	152	35	2 723	68 382	2 178	4 016	47 008	170 648	117 788	286 246	26 518
	furniture and kitchen cabinet manufacturing	2	¹ 105	17	^r 1 458	r34 380	'1 202	^r 2 199	¹ 25 312	^r 68 199	^r 52 368	¹ 119 189	¹ 22 635
33711	Wood kitchen cabinet and countertop manufacturing	4	^r 60	9	^r 636	¹ 16 512	^r 508	¹ 932	'11 194	^r 28 850	^r 19 944	^r 47 540	D
337110 33712	Wood kitchen cabinet and countertop manufacturing Household and institutional	4	^r 60	9	^r 636	^r 16 512	^r 508	^r 932	'11 194	r28 850	^r 19 944	r47 540	D
337121	furniture manufacturing Upholstered household	1	45	8	822	17 868	694	1 267	14 118	39 349	32 424	71 649	D
337122	furniture manufacturing Nonupholstered wood household furniture	-	5	1	е	D	D	D	D	D	D	D	149
337127	manufacturing Institutional furniture manufacturing	1	32 4	5 1	342 151	7 632 2 379	271 122	555 181	5 826 1 309	14 302 9 197	10 042 1 789	24 058 11 032	D 328
3372	Office furniture (including fixtures) manufacturing	2	'34	12	'1 019	¹ 27 212	⁷ 789	^r 1 486	'17 795	77 156	^r 40 756	¹ 117 097	r3 088
33721	Office furniture (including fixtures) manufacturing	2	^r 34	12	r1 019	¹ 27 212	¹ 789	r1 486	r17 795	77 156	r40 756	r117 097	r3 088
337212	Custom architectural woodwork and millwork manufacturing	3	r16	7	e	D D	D	D	D	77 100 D	40 700 D	D	r1 653
337215	Showcase, partition, shelving, and locker manufacturing	_	15	5	551	13 370	465	828	9 257	38 910	19 299	58 151	D
3379	Other furniture related product manufacturing	2	13	6	246	6 790	187	331	3 901	25 293	24 664	49 960	795
33791 337910	Mattress manufacturing	2 2	12 12	6 6	c c	D D	D D	D D	D D	D D	D D	D D	D D
339	Miscellaneous manufacturing	2	306	48	4 523	137 535	3 195	5 855	74 551	377 867	302 030	682 645	21 541

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

			establis	ll hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E ¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA—Con.												
339 3391	Miscellaneous manufacturing—Con. Medical equipment and supplies manufacturing	4	111	13	1 265	45 268	842	1 429	21 037	121 953	90 312	209 957	5 348
33911	Medical equipment and supplies manufacturing	4	111	13	1 265	45 268	842	1 429	21 037	121 953	90 312	209 957	5 348
339111	Laboratory apparatus and furniture manufacturing	_	1	1	С	D	D	D	D	D	D	D	D
339112	Surgical and medical instrument manufacturing	2	8	5	355	12 946	226	445	5 676	35 191	50 616	85 721	1 560
339113	Surgical appliance and												
339116	supplies manufacturing Dental laboratories	7 3	11 70	2	295 318	12 656 8 923	205 249	282 433	5 522 6 266	54 348 15 085	9 803 3 348	65 475 18 461	1 868 506
3399	Other miscellaneous manufacturing	1	195	35	3 258	92 267	2 353	4 426	53 514	255 914	211 718	472 688	16 193
33992	Sporting and athletic goods manufacturing		28	8	1 066	31 613	761	1 450	17 384	80 376	85 042	169 911	7 476
339920	Sporting and athletic goods	_											
33995	manufacturing	4	28 72	8 6	1 066 541	31 613 16 161	761 349	1 450 590	17 384 8 133	80 376 26 560	85 042 19 100	169 911 45 885	7 476 1 775
339950 33999	Sign manufacturing All other miscellaneous	4	72	6	541	16 161	349	590	8 133	26 560	19 100	45 885	1 775
339991	manufacturing	-	74	18	1 482	39 769	1 114	2 148	25 064	139 422	98 300	237 813	6 692
339999	device manufacturing All other miscellaneous	1	13	5	е	D	D	D	D	D	D	D	1 692
559999	manufacturing	_	57	12	1 001	25 258	721	1 261	14 458	108 489	67 851	176 429	D

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

Includes establishments with payroll at any time during the year.

Jindustries with 100 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 100 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: c–100 to 249 employees; 6–500 to 499 employees; 1–500 to 999 employees; 1–500 to 24,999 employees, h–2,500 to 49,999 employees; 1–50,000 to 9,999 employees; 1–10,000 to 24,999 employees, h–2,500 to 49,999 employees; 1–50,000 to 9,999 employees; 1–5

period that includes the 12th of March.

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

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

For me	aning of abbreviations and symbols, see	e intro	establis	All .	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	FORT SMITH, AR-OK METROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	_	350	119	27 540	806 958	22 987	44 975	610 877	3 072 038	3 296 747	6 394 911	136 782
311	Food manufacturing	2	40	21	8 784	203 388	7 799	15 336	165 103	782 102	1 195 251	1 989 204	26 327
3114	Fruit and vegetable preserving and specialty food manufacturing	_	5	3	f	D	D	D	D	D	D	D	D
31142 311421 311422	Fruit and vegetable canning, pickling, and drying	- - -	4 3 1	3 2 1	f e f	D D D	D D D	D D D	D D D	D D D	D D D	D D D	D D D
3116	Animal slaughtering and processing	4	15	10	6 798	140 778	6 165	11 938	117 514	258 528	715 893	986 941	17 935
31161 311615	Animal slaughtering and processing	4	15 9	10 9	6 798 6 759	140 778 139 854	6 165 6 129	11 938 11 868	117 514 116 727	258 528 256 763	715 893 710 110	986 941 979 420	17 935 D
3118	Bakeries and tortilla manufacturing	_	6	2	e	D	D	D	D	D	D	D	D
31182 311821	Cookie, cracker, and pasta manufacturing Cookie and cracker	_	1	1	е	D	D	D	D	D	D	D	D
3119	manufacturing Other food manufacturing	_	3	1 2	e e	D D	D D	D D	D D	D D	D D	D D	D D
31191 311911	Snack food manufacturing Roasted nuts and peanut butter manufacturing	_ _	1	1	e e	D D	D D	D D	D D	D D	D D	D D	D D
312	Beverage and tobacco product manufacturing	_	7	2	e	D	D	D	D	D	D	D	D
3121	Beverage manufacturing	_	7	2	e	D	D	D	D	D	D	D	D
321	Wood product manufacturing	1	19	6	393	10 226	282	607	6 749	22 440	34 912	54 725	1 494
322	Paper manufacturing	_	14	10	1 222	43 844	1 019	2 168	32 986	142 591	198 985	334 671	D
3222	Converted paper product manufacturing	_	14	10	1 222	43 844	1 019	2 168	32 986	142 591	198 985	334 671	D
32221	Paperboard container manufacturing	_	13	9	g	D	D	D	D	D	D	D	D
322211 322215	Corrugated and solid fiber box manufacturing Nonfolding sanitary food	_	9	6	f	D	D	D	D	D	D	D	D
323	container manufacturing Printing and related support	_	1	1	е	D	D	D	D	D	D	D	D
3231	activities Printing and related support	2	34	4	624	22 411	441	779	14 847	41 633	26 541	68 337	2 557
	activities	2	34	4	624	22 411	441	779	14 847	41 633	26 541	68 337	2 557
32311 323112	Printing Commercial flexographic printing	2	34	1	624 e	22 411 D	441 D	779 D	14 847 D	41 633 D	26 541 D	68 337 D	2 557 D
325	Chemical manufacturing	1	7	2	е	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing	_	1	1	е	D	D	D	D	D	D	D	D
32592 325920	Explosives manufacturing Explosives manufacturing	- -	1	1 1	e e	D D	D D	D D	D D	D D	D D	D D	D D
326	Plastics and rubber products manufacturing	_	21	14	1 792	43 077	1 526	3 060	31 466	130 278	187 031	322 640	12 396
3261	Plastics product manufacturing	_	20	14	g	D	D	D	D	D	D	D	D
32615	Urethane and other foam product (except polystyrene)	_		_									_
326150	manufacturing Urethane and other foam product (except polystyrene)	3	4	3	257	4 861	231	255	3 171	11 749	19 587	31 330	D D
32619	manufacturing Other plastics product manufacturing	3	10	3	257 1 246	4 861 29 939	231 1 032	255 2 206	3 171 21 477	11 749 99 074	19 587 126 977	31 330 226 156	D 11 579
326199	All other plastics product manufacturing	_	10	8	1 246	29 939	1 032	2 206	21 477	99 074	126 977	226 156	11 579
327	Nonmetallic mineral product manufacturing	1	27	7	425	11 866	357	730	9 572	42 529	22 685	64 093	2 495

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For me	aning of abbreviations and symbols, see	intr	oductory te									-	
			establis	nments ²	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry	E ¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	FORT SMITH, AR-OK METROPOLITAN STATISTICAL AREA—Con.												
331 3311	Primary metal manufacturing Iron and steel mills and ferroalloy manufacturing	_	7	4	925 e	45 885 D	655 D	1 433 D	30 598 D	168 628 D	204 783 D	373 767 D	12 302 D
33111 331111	Iron and steel mills and ferroalloy manufacturing Iron and steel mills	_	1 1	1 1	e e	D D	D D	D D	D D	D D	D D	D D	D D
3312	Steel product manufacturing from purchased steel	_	2	1	e	D	D	D	D	D	D	D	D
33122 331222	Rolling and drawing of purchased steel	_	2 2	1 1	e e	D D	D D	D D	D D	D D	D D	D D	D D
332	Fabricated metal product manufacturing	1	62	13	1 583	36 578	1 276	1 720	23 859	85 625	48 554	137 116	4 497
3325 33251 332510	Hardware manufacturing	_ _	1 1	1 1 1	e e e	D D D	D D D	D D D	D D D	D D D	D D D	D D D	D D D
3326	Spring and wire product manufacturing	_	3	3	481	10 836	312	356	6 155	25 770	14 770	40 362	D
33261 332618	Spring and wire product manufacturing Other fabricated wire product	-	3	3	481	10 836	312	356	6 155	25 770	14 770	40 362	D
333	manufacturing Machinery manufacturing	_	3 21	3 5	481 2 486	10 836 93 282	312 1 868	356 4 040	6 155 71 657	25 770 665 336	14 770 284 564	40 362 953 194	D 8 016
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	_	5	4	g	D	D	D	D	D	D	D	7 817
33341	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	_	5	4	g	D	D	D	D	D	D	D	7 817
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing	_	5	4	g	D	D	D	D	D	D	D	7 817
335	Electrical equipment, appliance, and component manufacturing	_	12	9	5 554	197 531	4 915	10 117	160 673	685 600	795 622	1 483 145	33 935
3352	Household appliance manufacturing	_	1	1	h	D	D	D	D	D	D	D	D
33522 335222	Major appliance manufacturing. Household refrigerator and home freezer manufacturing	-	1	1	h	D D	D D	D D	D D	D D	D D	D D	D D
3353	Electrical equipment manufacturing	_	8	5	g	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing	_	8	5	g	D	D	D	D	D	D	D	D
335312	Motor and generator manufacturing	-	5	4	g	D	D	D	D	D	D	D	D
3359	Other electrical equipment and component manufacturing	-	2	2	е	D	D	D	D	D	D	D	D
33591 335911	Battery manufacturing Storage battery manufacturing	_	1	1	e e	D D	D D	D D	D D	D D	D D	D D	D D
336	Transportation equipment manufacturing	-	10	3	495	17 233	397	482	12 144	42 070	68 212	109 890	701
3363	Motor vehicle parts manufacturing	-	6	2	е	D	D	D	D	D	D	D	478
337	Furniture and related product manufacturing	_	30	13	1 809	43 939	1 481	2 836	31 417	87 526	107 558	194 672	3 831
3371	Household and institutional furniture and kitchen cabinet manufacturing	_	24	10	g	D	D	D	D	D	D	D	D
33712 337122	Household and institutional furniture manufacturing Nonupholstered wood household furniture	-	21	10	1 387	35 231	1 120	2 022	25 089	68 660	85 005	151 108	2 967
0070	manufacturing	-	10	5	1 065	26 430	855	1 538	18 687	51 694	66 665	115 630	2 297
3372	Office furniture (including fixtures) manufacturing	-	5	2	383	7 835	327	737	5 745	17 222	20 220	39 582	D
33721 337211	Office furniture (including fixtures) manufacturing Wood office furniture manufacturing	-	5 1	2 1	383 e	7 835 D	327 D	737 D	5 745 D	17 222 D	20 220 D	39 582 D	D D

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

	aning of appreviations and symbols, see		A establis	ui l	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	FORT SMITH, AR-OK METROPOLITAN STATISTICAL AREA—Con.												
339 3399	Miscellaneous manufacturing Other miscellaneous	2	27	3	559	11 757	366	773	5 944	37 840	19 784	58 333	1 706
33992	manufacturing	2	21	3	542	11 188	353	757	5 693	36 693	19 363	56 798	1 677
339920	manufacturing	-	5 5	1	e e	D D	D D	D D	D D	D D	D D	D D	D D
	OKLAHOMA CITY-SHAWNEE, OK COMBINED STATISTICAL AREA												
31-33	Manufacturing	-	1 204	307	44 606	1 658 259	31 717	63 173	1 061 769	5 938 993	6 946 682	12 808 757	317 656
311	Food manufacturing	1	88	25	h	D	D	D	D	D	D	D	D
3111 31111	Animal food manufacturing Animal food manufacturing	_	12 12	5 5	e e	D D	D D	D D	D D	D D	D D	D D	D D
3112	Grain and oilseed milling	4	4	3	e	D	D	D	D	D	D	D	D
3115	Dairy product manufacturing	2	5	3	е	D	D	D	D	D	D	D	D
31151 311511	Dairy product (except frozen) manufacturing Fluid milk manufacturing	_	2 2	2 2	e e	D D	D D	D D	D D	D D	D D	D D	D D
3116	Animal slaughtering and processing	1	20	8	997	31 494	774	1 608	19 169	131 431	237 272	365 966	3 373
31161	Animal slaughtering and processing	1	20	8	997	31 494	774	1 608	19 169	131 431	237 272	365 966	3 373
311612	Meat processed from carcasses	1	13	7	f	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing	1	31	3	f	D	D	D	D	D	D	D	D
31181	Bread and bakery product manufacturing	1	26	3	f	D	D	D	D	D	D	D	D
311812 3119	manufacturing	1	5 11	3	f e	D D	D D	D D	D D	D D	D D	D D	D D
312	Beverage and tobacco product	4				6	_					6	D
3121	manufacturing Beverage manufacturing	1	9	1	f	D D	D D	D D	D D	D D	D D	D D	D
31211	Soft drink and ice	·											
312111	manufacturing Soft drink manufacturing	_	6 2	1 1	f f	D D	D D	D D	D D	D D	D D	D D	D D
315	Apparel manufacturing	1	22	7	f	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing	1	16	6	е	D	D	D	D	D	D	D	D
31529	Other cut and sew apparel manufacturing	_	1	1	е	D	D	D	D	D	D	D	D
315299	All other cut and sew apparel manufacturing	_	1	1	е	D	D	D	D	D	D	D	D
321	Wood product manufacturing	4	46	12	f	D	D	D	D	D	D	D	D
3219	Other wood product manufacturing	3	37	9	е	D	D	D	D	D	D	D	D
322	Paper manufacturing	1	14	6	е	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing	1	13	6	e	D	D	D	D	D	D	D	D
32221	Paperboard container manufacturing	-	6	4	363	11 670	267	555	6 874	22 798	31 898	55 491	D
323	Printing and related support activities	2	165	23	g	D	D	D	D	D	D	D	D
3231	Printing and related support activities	2	165	23	g	D	D	D	D	D	D	D	D
32311 323110	Printing Commercial lithographic	2	151	21	g	D	D	D	D	D	D	D	D
323113	printing	1 –	84 21	14 5	1 006 250	30 952 7 047	738 172	1 336 333	19 162 3 996	62 791 15 608	40 002 11 478	106 146 27 144	D 865
324	Petroleum and coal products manufacturing	1	10	3	e	D	D	D	D	D	D	D	D
3241	Petroleum and coal products manufacturing	1	10	3	е	D	D	D	D	D	D	D	D

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	aning of appreviations and symbols, see		Δ	III hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA CITY-SHAWNEE, OK COMBINED STATISTICAL AREA—Con.												
325	Chemical manufacturing	1	39	12	g	D	D	D	D	D	D	D	D
3254	Pharmaceutical and medicine manufacturing	8	9	2	е	D	D	D	D	D	D	D	D
32541	Pharmaceutical and medicine manufacturing	8	9	2	е	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation manufacturing	9	3	1	e	D	D	D	D	D	D	D	D
3259	Other chemical product and preparation manufacturing	_	9	2	e	D	D	D	D	D	D	D	372
32599	All other chemical product and												
326	preparation manufacturing Plastics and rubber products	_	8	2	е	D	D	D	D	D	D	D	D
	manufacturing	-	49	19	4 261	172 835	3 333	6 725	126 552	530 079	385 272	915 454	D
3261 32611	Plastics product manufacturing Plastics packaging materials and unlaminated film and sheet manufacturing	_	42	17	h f	D D	D D	D D	D D	D D	D D	D D	D D
326111 326113	Plastics bag manufacturing Unlaminated plastics film and sheet (except packaging)	_	3	2	e	D	D	D	D	D	D	D	D
32619	manufacturing Other plastics product	_	3	1	е	D	D	D	D	D	D	D	D
326199	manufacturing All other plastics product manufacturing	_	21 15	10 7	g	D D	D D	D D	D D	D D	D D	D D	D D
3262	Rubber product manufacturing	_	7	2	g g	D	D	D	D	D	D	D	D
32621 326211	Tire manufacturing Tire manufacturing (except	-	4	2	g	D	D	D	D	D	D	D	D
327	retreading) Nonmetallic mineral product	-	1	1	g	D	D	D	D	D	D	D	D
3273	manufacturing Cement and concrete product	3	74	25	g	D	D	D	D	D	D	D	12 505
	manufacturing	2	51	17	f	D	D	D	D	D	D	D	D
32732	Ready-mix concrete manufacturing	_	34	8	е	D	D	D	D	D	D	D	D
327320 32739	Ready-mix concrete manufacturing Other concrete product	-	34	8	е	D	D	D	D	D	D	D	D
327390	manufacturing Other concrete product	7	10	6	388	11 172	283	553	4 995	26 309	10 771	37 025	1 318
004	manufacturing	7	10	6	388	11 172	283	553	4 995	26 309	10 771	37 025	1 318
331 3314	Primary metal manufacturing Nonferrous metal (except	2	11	4	†	D	D	D	D	D	D	D	D
	aluminum) production and processing	_	3	1	е	D	D	D	D	D	D	D	D
33142 331421	Copper rolling, drawing, extruding, and alloying Copper rolling, drawing, and extruding	-	1	1	е	D D	D	D D	D D	D D	D D	D D	D
332	Fabricated metal product manufacturing	_	217	55	i	D	D	D	D	D	D	D	D
3323	Architectural and structural metals manufacturing	_	58	21	g	D	D	D	D	D	D	D	D
33231	Plate work and fabricated structural product manufacturing	1	31	11	f	D	D	D	D	D	D	D	D
332311	Prefabricated metal building and component manufacturing	_	9	4	e	D	D	D	D	D	D	D	D
332312	Fabricated structural metal manufacturing	1	18	6	e	D	D	D	D	D	D	D	D
33232	Ornamental and architectural metal products												
332321	manufacturing	-	27	10	g 758	D 23 735	D 603	D 1 107	D 16 761	D 75 222	D 46 302	D 122 768	D D
3324	manufacturing Boiler, tank, and shipping container manufacturing	_	4	2	736 e	23 735 D	D	1 107 D	16 761 D	75 222 D	46 302 D	122 766 D	D
33243	Metal can, box, and other metal container (light gauge)												
332431	manufacturing Metal can manufacturing	_	4 2	2 2	e e	D D	D D	D D	D D	D D	D D	D D	D D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing	2	81	10	f	D	D	D	D	D	D	D	D
33271 332710	Machine shops	2	74 74	7 7	f f	D D	D D	D D	D D	D D	D D	D D	D D

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For me	eaning of abbreviations and symbols, se-	e intr	oductory to	ext]	I								
			establis	ll hments ²	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA CITY-SHAWNEE, OK COMBINED STATISTICAL AREA—Con.												
332 3328	Fabricated metal product manufacturing—Con. Coating, engraving, heat treating, and allied activities	6	23	7	267	9 272	207	398	6 414	17 588	9 391	26 972	D
33281	Coating, engraving, heat treating, and allied activities	6	23	7	267	9 272	207	398	6 414	17 588	9 391	26 972	D
3329	Other fabricated metal product manufacturing	_	32	13	2 549	92 886	1 861	3 924	57 688	303 778	234 386	515 423	10 753
33291	Metal valve manufacturing	-	12	8	1 763	70 490	1 353	2 901	44 995	262 915	205 261	446 127	9 515
332911	Industrial valve manufacturing	_	9	7	985	43 008	641	1 428	21 275	161 619	123 930	262 326	D
332913	Plumbing fixture fitting and trim manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
33299 332999	All other fabricated metal product manufacturing	2	20	5	786	22 396	508	1 023	12 693	40 863	29 125	69 296	1 238
332999	fabricated metal product manufacturing	2	11	4	678	19 014	419	835	10 006	34 681	23 773	57 698	990
333	Machinery manufacturing	1	114	30	i	D	D	D	D	D	D	D	29 700
3331	Agriculture, construction, and mining machinery manufacturing	_	36	10	g	D	D	D	D	D	D	D	D
33312	Construction machinery manufacturing	_	6	1	f	D	D	D	D	D	D	D	D
333120	Construction machinery manufacturing	_	6	1	· f	D	D	D	D	D	D	D	D
33313	Mining and oil and gas field machinery manufacturing	1	28	9	, f	D	D	D	D	D	D	D	D
333132	Oil and gas field machinery and equipment manufacturing	1	28	9	, f	D	D	D	D	D	D	D	D
3334	Ventilation, heating, air- conditioning, and commercial							J					
22241	refrigeration equipment manufacturing	1	14	8	g	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	1	14	8	g	D	D	D	D	D	D	D	D
000410	heating equipment and commercial and industrial refrigeration equipment manufacturing	1	12	8	g	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing	3	34	8	g	D	D	D	D	D	D	D	D
33391	Pump and compressor			_		_							
333911	manufacturing Pump and pumping	4	16	5	g	D	D	D	D	D	D	D	D -
333912	equipment manufacturing Air and gas compressor	4	10	3	f	D	D	D	D	D	D	D	D
33399	manufacturing	-	6	2	е	D	D	D	D	D	D	D	D
333996	machinery manufacturing Fluid power pump and motor manufacturing	_	10	1	e e	D D	D D	D D	D D	D D	D D	D D	D D
334	Computer and electronic product manufacturing	_	39	13	h	D	D	D	D	D	D	D	D
3341	Computer and peripheral equipment manufacturing	_	5	2	g	D	D	D	D	D	D	D	D
33411	Computer and peripheral		_		_	D	D	D	D	D	D	D	D
334112	equipment manufacturing Computer storage device manufacturing	_	5 2	2	g g	D	D	D	D	D	D	D	D
3342	Communications equipment manufacturing	_	6	3	g	D	D	D	D	D	D	D	D
33421	Telephone apparatus												
334210	manufacturing	_	2	1	g g	D D	D D	D D	D D	D D	D D	D D	D D
3344	Semiconductor and other electronic component manufacturing	_	17	7	g	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component		''	,	9	D		5				, , ,	5
334418	manufacturing	-	17	7	g	D	D	D	D	D	D	D	D
334419	manufacturing Other electronic component manufacturing	-	9	2 4	e f	D D	D D	D D	D D	D D	D D	D D	D D

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For me	aning of abbreviations and symbols, sec	e intro	oductory to	extj									
			establis	II hments ²	All em	ployees	Pro	duction worl	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA CITY-SHAWNEE, OK COMBINED STATISTICAL AREA—Con.												
335	Electrical equipment, appliance, and component manufacturing	-	12	2	370	11 174	310	481	8 862	30 183	49 116	81 301	1 119
336	Transportation equipment manufacturing	-	83	34	i	D	D	D	D	D	D	D	D
3361	Motor vehicle manufacturing	-	3	1	h	D	D	D	D	D	D	D	D
33611	Automobile and light duty motor vehicle manufacturing	_	3	1	h	D	D	D	D	D	D	D	D
336112	Light truck and utility vehicle manufacturing	-	2	1	h	D	D	D	D	D	D	D	D
3362	Motor vehicle body and trailer manufacturing	1	25	10	g	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer manufacturing	1	25	10	g	D	D	D	D	D	D	D	D
336212 336214	Truck trailer manufacturing Travel trailer and camper	4	11	4	ě	D	D	D	D	D	D	D	D
	manufacturing	-	10	5	g	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing	-	33	14	4 498	133 270	3 653	7 797	102 114	465 019	483 168	927 180	24 240
33632	Motor vehicle electrical and electronic equipment manufacturing	_	7	3	1 471	40 361	1 197	2 866	32 635	135 038	107 224	238 915	D
336322	Other motor vehicle electrical and electronic equipment												_
33633	manufacturing Motor vehicle steering and suspension component	-	7	3	1 471	40 361	1 197	2 866	32 635	135 038	107 224	238 915	D
336330	(except spring) manufacturing Motor vehicle steering and suspension component	-	3	2	g	D	D	D	D	D	D	D	D
33635	(except spring) manufacturing Motor vehicle transmission and	-	3	2	g	D	D	D	D	D	D	D	D
336350	power train parts manufacturing Motor vehicle transmission	-	7	4	1 222	38 009	934	2 107	24 739	115 988	114 330	216 129	6 958
	and power train parts manufacturing	_	7	4	1 222	38 009	934	2 107	24 739	115 988	114 330	216 129	6 958
33636	Motor vehicle seating and interior trim manufacturing	_	2	1	e	D	D	D	D	D	D	D	D
336360	Motor vehicle seating and interior trim manufacturing	_	2	1	е	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts manufacturing	2	6	3	308	9 606	263	520	7 220	3 148	3 009	7 615	57
336399	All other motor vehicle parts manufacturing	2	6	3	308	9 606	263	520	7 220	3 148	3 009	7 615	57
3364	Aerospace product and parts manufacturing	-	14	8	f	D	D	D	D	D	D	D	D
33641	Aerospace product and parts manufacturing	_	14	8	f	D	D	D	D	D	D	D	D
336412	Aircraft engine and engine parts manufacturing	_	5	4	е	D	D	D	D	D	D	D	D
336413	Other aircraft parts and auxiliary equipment		_		_			5			5		Б.
337	manufacturing Furniture and related product	_	7	3	е	D	D	D	D	D	D	D	D
3371	manufacturing Household and institutional	3	54	14	g	D	D	D	D	D	D	D	D
3371	furniture and kitchen cabinet manufacturing	6	r30	4	е	D	D	D	D	D	D	D	D
3372	Office furniture (including fixtures) manufacturing	2	^r 15	6	^r 659	r16 700	^r 524	^r 942	^r 11 666	^r 49 573	¹ 27 092	76 149	r1 123
33721 337212	Office furniture (including fixtures) manufacturing	2	^r 15	6	^r 659	r16 700	^r 524	^r 942	^r 11 666	^r 49 573	¹ 27 092	⁷ 6 149	r1 123
	Custom architectural woodwork and millwork manufacturing	4	7	4	^r 289	r8 456	^r 193	r389	r5 239	^r 27 838	r10 680	'38 421	D
337215	Showcase, partition, shelving, and locker manufacturing		7	2	e	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing	1	117	18	1 544	46 645	973	1 731	21 881	141 721	138 566	278 138	4 148
3391	Medical equipment and supplies												
33911	manufacturing	1	50	6	f	D	D	D	D	D	D	D	D
339112	Medical equipment and supplies manufacturing Surgical and medical	1	50	6	f	D	D	D	D	D	D	D	D
	instrument manufacturing	1	5	4	el	D	D	D	l D	D	D	D	D

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Torme	aning of abbreviations and symbols, see	3 11111	A establish	JI I	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry	E1	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA CITY-SHAWNEE, OK COMBINED STATISTICAL AREA—Con.	_	Total	more	Number	(\$1,000)	Number	(1,000)	(ψ1,000)	(ψ1,000)	(\$1,000)	(\$1,000)	(\$1,000)
339 3399	Miscellaneous manufacturing—Con. Other miscellaneous manufacturing	1	67	12	f	D	D	D	D	D	D	D	D
33995 339950 33999	Sign manufacturing	3	32 32	3	e e	D D	D D	D D	D D	D D	D D	D D	D D
339999	manufacturing	_	21 15	7 5	e e	D D	D D	D D	D D	D D	D D	D D	D D
	Oklahoma City, OK Metropolitan Statistical Area												
31-33	Manufacturing	-	1 141	287	41 197	1 542 123	29 147	58 132	984 886	5 652 120	6 645 156	12 220 074	262 757
311	Food manufacturing	1	84	24	3 025	102 153	2 014	4 258	58 886	429 584	880 460	1 310 891	17 249
3111	Animal food manufacturing	-	10	5	395	17 758	259	598	11 060	168 730	356 763	516 915	5 795
31111	Animal food manufacturing	-	10	5	395	17 758	259	598	11 060	168 730	356 763	516 915	5 795
3115	Dairy product manufacturing	2	5	3	е	D	D	D	D	D	D	D	D
31151 311511	Dairy product (except frozen) manufacturing Fluid milk manufacturing	_	2 2	2 2	e e	D D	D D	D D	D D	D D	D D	D D	D D
3116	Animal slaughtering and processing	1	20	8	997	31 494	774	1 608	19 169	131 431	237 272	365 966	3 373
31161	Animal slaughtering and	1	20	8	997	31 494	774	1 608	19 169	131 431	237 272	365 966	3 373
311612	processing	1	13	7	99 <i>1</i>	31 494 D	774 D	D	19 109 D	131 431 D	237 272 D	303 900 D	3 3/3 D
3118	Bakeries and tortilla manufacturing	1	30	3	f	D	D	D	D	D	D	D	D
31181 311812	Bread and bakery product manufacturing	1	25 5	3	f	D D	D D	D D	D D	D D	D D	D D	D D
3119	Other food manufacturing	4	11	2	e	D	D	D	D	D	D	D	D
312	Beverage and tobacco product manufacturing	1	9	1	f	D	D	D	D	D	D	D	D
3121	Beverage manufacturing	1	9	1	f	D	D	D	D	D	D	D	D
31211	Soft drink and ice					_	_	_	_	_	_	_	_
312111	manufacturing Soft drink manufacturing	_	6 2	1 1	f f	D D	D D	D D	D D	D D	D D	D D	D D
315	Apparel manufacturing	1	21	6	460	12 497	252	445	4 736	26 869	38 234	63 766	D
3152	Cut and sew apparel manufacturing	1	15	5	404	11 395	202	351	3 925	25 083	36 606	60 401	D
31529 315299	Other cut and sew apparel manufacturing	_	1	1	е	D	D	D	D	D	D	D	D
010200	manufacturing	-	1	1	е	D	D	D	D	D	D	D	D
321	Wood product manufacturing	4	43	10	509	11 819	412	753	8 484	19 669	21 888	41 581	D
3219	Other wood product manufacturing	3	36	8	409	9 989	328	619	7 126	16 735	16 602	33 319	D
322	Paper manufacturing	1	14	6	е	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing	1	13	6	е	D	D	D	D	D	D	D	D
32221	Paperboard container manufacturing	_	6	4	363	11 670	267	555	6 874	22 798	31 898	55 491	D
323	Printing and related support activities	2	160	23	1 559	46 558	1 141	2 098	28 567	96 864	59 498	159 773	7 692
3231	Printing and related support activities	2	160	23	1 559	46 558	1 141	2 098	28 567	96 864	59 498	159 773	7 692
32311	Printing	2	146	21	1 460	44 482	1 055	1 933	27 239	93 264	58 748	155 422	D
323110 323113	Commercial lithographic printing	1 –	81 21	14 5	1 002 250	30 815 7 047	734 172	1 330 333	19 075 3 996	62 527 15 608	39 811 11 478	105 691 27 144	6 247 865
324	Petroleum and coal products manufacturing	1	9	3	310	10 312	148	306	4 488	24 788	62 632	89 111	1 128
3241	Petroleum and coal products manufacturing	1	9	3	310	10 312	148	306	4 488	24 788	62 632	89 111	1 128

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For me	eaning of abbreviations and symbols, sec	e intre	oductory to	extJ									
			establis	ll hments ²	All em	ployees	Pro	duction work	ers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA CITY-SHAWNEE, OK COMBINED STATISTICAL AREA-Con.												
	Oklahoma City, OK Metropolitan Statistical Area —Con.												
325	Chemical manufacturing	1	38	12	1 172	55 761	591	1 148	22 681	450 130	220 455	667 772	3 466
3254	Pharmaceutical and medicine manufacturing	8	8	2	486	23 796	268	474	10 367	118 249	14 848	130 985	1 675
32541	Pharmaceutical and medicine manufacturing	8	8	2	486	23 796	268	474	10 367	118 249	14 848	130 985	1 675
325412	Pharmaceutical preparation manufacturing	9	3	1	e	23 730 D	D	D	10 307 D	D D	D	D	T 0/3
3259	Other chemical product and		9	2		D	D	D	D	D	D	D	372
32599	preparation manufacturing All other chemical product and	_			е								
326	preparation manufacturing Plastics and rubber products	-	8	2	е	D	D	D	D	D	D	D	D
	manufacturing	-	39	15	3 187	132 587	2 624	5 339	103 969	422 073	285 760	706 994	41 561
3261	Plastics product manufacturing	-	34	13	g	D	D	D	D	D	D	D	D
32611	Plastics packaging materials and unlaminated film and sheet manufacturing	_	6	2	e	D	D	D	D	D	D	D	D
326111 32619	Plastics bag manufacturing Other plastics product	-	3	2	e	Ď	Ď	Б	Ď	Ď	Б	D	Ď
326199	manufacturing	-	18	8	912	30 301	659	1 436	20 384	99 699	80 486	182 226	D
2000	manufacturing	-	12	5	f	D D	D	D D	D	D D	D D	D D	D D
3262 32621	Rubber product manufacturing	-	5	2	g g	D	D D	D	D D	D	D	D	D
326211	Tire manufacturing (except retreading)	_	1	1	g	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing	3	69	23	1 326	41 265	1 029	2 042	26 690	119 585	92 125	210 987	11 532
3273	Cement and concrete product manufacturing	2	49	16	946	29 659	747	1 453	19 219	91 020	71 413	161 994	10 191
32732	Ready-mix concrete		32	7	436	14 630	371	701	11 573	51 032	54 890	105 897	7 637
327320	manufacturing		32	7	436	14 630	371	701	11 573	51 032	54 890	105 897	7 637
32739	Other concrete product manufacturing	7	10	6	388	11 172	283	553	4 995	26 309	10 771	37 025	1 318
327390	Other concrete product manufacturing	7	10	6	388	11 172	283	553	4 995	26 309	10 771	37 025	1 318
331	Primary metal manufacturing	6	9	3	330	11 892	249	554	8 610	27 102	61 347	87 431	2 045
332	Fabricated metal product manufacturing	_	207	53	5 992	213 129	4 456	8 876	138 781	625 138	601 613	1 203 119	19 470
3323	Architectural and structural metals manufacturing	_	54	19	1 905	63 940	1 400	2 722	40 371	174 410	136 097	312 330	2 813
33231	Plate work and fabricated structural product												
332311	manufacturing Prefabricated metal building and component	1	29	9	878	31 586	609	1 232	18 288	80 582	72 507	153 387	1 206
332312	manufacturing Fabricated structural metal	-	8	3	412	13 058	296	554	7 749	28 999	36 494	65 617	D
33232	manufacturing Ornamental and architectural	1	17	5	430	17 592	292	637	9 911	49 352	34 470	83 981	668
332321	metal products manufacturing Metal window and door	-	25	10	1 027	32 354	791	1 490	22 083	93 828	63 590	158 943	1 607
3324	manufacturing Boiler, tank, and shipping	-	3	3	758	23 735	603	1 107	16 761	75 222	46 302	122 768	D
	container manufacturing	-	3	2	е	D	D	D	D	D	D	D	D
33243 332431	Metal can, box, and other metal container (light gauge) manufacturing	_	3 2	2 2	e e	D D	D D	D D	D D	D D	D D	D D	D D
3327	Machine shops; turned product; and screw, nut, and bolt	2	78	10		26 149	619	1 087	18 448				1 917
33271	manufacturing		71	7	825 592	18 537	468	870	13 116	44 682 33 249	20 571 11 646	64 619 44 757	1 504
332710 3328	Coating, engraving, heat treating,		71	7	592	18 537	468	870	13 116	33 249	11 646	44 757	1 504
33281	and allied activities Coating, engraving, heat	6	23	7	267	9 272	207	398	6 414	17 588	9 391	26 972	D
	treating, and allied activities	6	23	7	267	9 272	207	398	6 414	17 588	9 391	26 972	D

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-or me	aning of abbreviations and symbols, see	e intre	Δ	JI	All em	ployees	Pro	oduction work	vers				
NAICC			establis	hments ²	All Cili	pioyees		Jauction work	Neis .				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA CITY-SHAWNEE, OK COMBINED STATISTICAL AREA—Con.												
	Oklahoma City, OK Metropolitan Statistical Area —Con.												
332	Fabricated metal product manufacturing—Con.												
3329	Other fabricated metal product manufacturing	_	32	13	2 549	92 886	1 861	3 924	57 688	303 778	234 386	515 423	10 753
33291 332911	Metal valve manufacturing Industrial valve	-	12	8	1 763	70 490	1 353	2 901	44 995	262 915	205 261	446 127	9 515
332913	manufacturing Plumbing fixture fitting and	-	9	7	985	43 008	641	1 428	21 275	161 619	123 930	262 326	D
33299	trim manufacturing All other fabricated metal	-	1	1	f	D	D	D	D	D	D	D	D
332999	product manufacturing All other miscellaneous	2	20	5	786	22 396	508	1 023	12 693	40 863	29 125	69 296	1 238
	fabricated metal product manufacturing	2	11	4	678	19 014	419	835	10 006	34 681	23 773	57 698	990
333	Machinery manufacturing	2	107	28	4 988	174 809	3 281	6 615	100 739	554 225	537 913	1 084 169	27 315
3331	Agriculture, construction, and mining machinery manufacturing	_	33	9	g	D	D	D	D	D	D	D	D
33312	Construction machinery manufacturing	_	5	1	f	D	D	D	D	D	D	D	D
333120	Construction machinery manufacturing Mining and oil and gas field	_	5	1	f	D	D	D	D	D	D	D	D
33313	machinery manufacturing	1	26	8	711	28 426	519	1 037	17 067	62 948	83 652	155 472	11 459
333132	Oil and gas field machinery and equipment manufacturing	1	26	8	711	28 426	519	1 037	17 067	62 948	83 652	155 472	11 459
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	1	13	8	2 015	68 448	1 366	2 768	43 319	188 270	235 770	425 929	5 593
33341	Ventilation, heating, air-	ľ			2 010	00 440	1 000	2 700	40 010	100 270	200 770	420 020	0 000
333415	conditioning, and commercial refrigeration equipment manufacturing	1	13	8	2 015	68 448	1 366	2 768	43 319	188 270	235 770	425 929	5 593
	commercial and industrial refrigeration equipment manufacturing	1	12	8	g	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing	4	32	7	1 274	44 893	776	1 552	22 985	185 254	151 981	335 270	5 837
33391	Pump and compressor manufacturing	4	16	5	g	D	D	D	D	D	D	D	D
333911	Pump and pumping equipment manufacturing	4	10	3	f	D	D	D	D	D	D	D	D
333912	Air and gas compressor manufacturing	-	6	2	е	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing	-	36	11	4 211	174 210	2 013	4 187	63 916	385 652	643 900	1 004 763	8 421
3341	Computer and peripheral equipment manufacturing	_	5	2	g	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing	_	5	2	g	D	D	D	D	D	D	D	D
334112	Computer storage device manufacturing	_	2	1	g	D	D	D	D	D	D	D	D
3342	Communications equipment manufacturing	_	5	3	g	D	D	D	D	D	D	D	D
33421	Telephone apparatus manufacturing	_	1	1	g	D	D	D	D	D	D	D	D
334210	Telephone apparatus manufacturing	_	1	1	g	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing	_	15	5	798	25 070	516	969	11 689	134 143	147 138	260 952	D
33441	Semiconductor and other												
334418	electronic component manufacturing Printed circuit assembly (electronic assembly)	-	15	5	798	25 070	516	969	11 689	134 143	147 138	260 952	D
334419	manufacturing Other electronic component manufacturing	1	7	2	e e	D D	D D	D D	D D	D D	D D	D D	D D
335	Electrical equipment, appliance, and component manufacturing		12	2	370	11 174	310	481	8 862	30 183	49 116	81 301	1 119

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			establis		All em	ployees	Pro	oduction worl	kers				
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	OKLAHOMA CITY-SHAWNEE, OK COMBINED STATISTICAL AREA—Con.												
	Oklahoma City, OK Metropolitan Statistical Area —Con.												
336	Transportation equipment manufacturing	_	79	31	9 713	423 933	8 142	16 432	348 383	2 149 474	2 754 144	4 882 835	98 818
3361	Motor vehicle manufacturing	_	3	1	h	D	D	D	D	D	D	D	D
33611 336112	Automobile and light duty motor vehicle manufacturing Light truck and utility vehicle manufacturing	_ _	3 2	1	h h	D D	D D	D D	D D	D D	D D	D D	D D
3362	Motor vehicle body and trailer manufacturing	1	23	9	g	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer manufacturing	1	23	9	a	D	D	D	D	D	D	D	D
336212 336214	Truck trailer manufacturing Travel trailer and camper manufacturing	5 -	10	3 5	265 1 097	7 301 28 596	235 935	332 1 451	6 033 21 493	6 099 58 365	15 824 54 705	21 828 117 167	D 969
3363	Motor vehicle parts manufacturing	_	33	14	4 498	133 270	3 653	7 797	102 114	465 019	483 168	927 180	24 240
33632	Motor vehicle electrical and electronic equipment												
336322	manufacturing Other motor vehicle electrical and electronic equipment manufacturing	_	7	3	1 471 1 471	40 361 40 361	1 197 1 197	2 866 2 866	32 635 32 635	135 038 135 038	107 224 107 224	238 915 238 915	D D
33633	Motor vehicle steering and suspension component (except spring)												
336330	manufacturing Motor vehicle steering and suspension component (except spring)	_	3	2	g	D	D	D	D	D	D	D	D
33635	manufacturing Motor vehicle transmission and power train parts	_	3	2	g	D	D	D	D	D	D	D	D
336350	manufacturing Motor vehicle transmission and power train parts	-	7	4	1 222	38 009	934	2 107	24 739	115 988	114 330	216 129	6 958
33636	manufacturing Motor vehicle seating and	_	7	4	1 222	38 009	934	2 107	24 739	115 988	114 330	216 129	6 958
336360	interior trim manufacturing Motor vehicle seating and interior trim manufacturing	_	2 2	1	e e	D D	D D	D D	D D	D D	D D	D D	D D
33639	Other motor vehicle parts manufacturing	2	6	3	308	9 606	263	520	7 220	3 148	3 009	7 615	57
336399	All other motor vehicle parts manufacturing	2	6	3	308	9 606	263	520	7 220	3 148	3 009	7 615	57
3364	Aerospace product and parts manufacturing	-	13	7	866	36 711	636	1 061	21 913	113 885	66 633	179 213	D
33641 336412	Aerospace product and parts manufacturing Aircraft engine and engine	_	13	7	866	36 711	636	1 061	21 913	113 885	66 633	179 213	D
336413	parts manufacturing Other aircraft parts and	_	5	4	е	D	D	D	D	D	D	D	D
007	auxiliary equipment manufacturing	-	6	2	е	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing	3	53	14	1 103	28 780	875	1 606	19 684	77 955	51 914	129 332	2 178
3371	Household and institutional furniture and kitchen cabinet manufacturing	r6	^r 29	4	е	D	D	D	D	D	D	D	D
3372	Office furniture (including fixtures) manufacturing	2	¹ 15	6	^r 659	r16 700	^r 524	^r 942	^r 11 666	^r 49 573	^r 27 092	¹ 76 149	^r 1 123
33721	Office furniture (including fixtures) manufacturing	2	'15	6	^r 659	¹ 16 700	^r 524	^r 942	'11 666	^r 49 573	^r 27 092	^r 76 149	^r 1 123
337212	Custom architectural woodwork and millwork manufacturing	4	7	4	^r 289	^r 8 456	^r 193	r389	r5 239	^r 27 838	^r 10 680	^r 38 421	D
337215	Showcase, partition, shelving, and locker manufacturing	_	7	2	е	0 430 D	D	D	D 200	27 030 D	D 000	00 421 D	D
339	Miscellaneous manufacturing	1	113	18	1 530	46 220	963	1 715	21 658	141 038	138 053	276 942	4 129
3391	Medical equipment and supplies manufacturing	1	49	6	661	22 461	403	736	9 494	45 732	75 239	117 760	2 372
33911	Medical equipment and supplies manufacturing	1	49	6	661	22 461	403	736	9 494	45 732	75 239	117 760	2 372
339112	Surgical and medical instrument manufacturing	1		4	е	D	D	D		D	D	D	D

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			establis	ll hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA CITY-SHAWNEE, OK COMBINED STATISTICAL AREA—Con.												
	Oklahoma City, OK Metropolitan Statistical Area —Con.												
339 3399	Miscellaneous manufacturing—Con. Other miscellaneous manufacturing	1	64	12	869	23 759	560	979	12 164	95 306	62 814	159 182	1 757
33995 339950 33999	Sign manufacturing Sign manufacturing All other miscellaneous	3	30 30	3	316 316	9 200 9 200	198 198	331 331	4 548 4 548	15 642 15 642	10 389 10 389	26 268 26 268	324 324
339999	manufacturing	-	20	7	455	11 651	296	533	6 005	73 427	47 882	122 124	1 262
	manufacturing Shawnee, OK Micropolitan	_	14	5	374	9 293	231	394	4 264	68 635	45 355	114 871	D
	Statistical Area												
31-33	Manufacturing	-	63	20	3 409	116 136	2 570	5 041	76 883	286 873	301 526	588 683	54 899
326	Plastics and rubber products manufacturing	-	10	4	1 074	40 248	709	1 386	22 583	108 006	99 512	208 460	D
3261	Plastics product manufacturing	-	8	4	g	D	D	D	D	D	D	D	D
32611 326113	Plastics packaging materials and unlaminated film and sheet manufacturing Unlaminated plastics film and	_	2	1	е	D	D	D	D	D	D	D	D
32619	sheet (except packaging) manufacturing	-	1	1	е	D	D	D	D	D	D	D	D
326199	Other plastics product manufacturing All other plastics product	-	3	2	е	D	D	D	D	D	D	D	D
	manufacturing	-	3	2	е	D	D	D	D	D	D	D	D
331 3314	Primary metal manufacturing	-	2	1	е	D	D	D	D	D	D	D	D
	Nonferrous metal (except aluminum) production and processing	-	2	1	е	D	D	D	D	D	D	D	D
33142	Copper rolling, drawing, extruding, and alloying	-	1	1	е	D	D	D	D	D	D	D	D
331421	Copper rolling, drawing, and extruding	-	1	1	е	D	D	D	D	D	D	D	D
333	Machinery manufacturing	-	7	2	е	D	D	D	D	D	D	D	2 385
3339	Other general purpose machinery manufacturing	-	2	1	е	D	D	D	D	D	D	D	D
33399	All other general purpose machinery manufacturing	_	1	1	е	D	D	D	D	D	D	D	D
333996	Fluid power pump and motor manufacturing	-	1	1	е	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing	-	3	2	f	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component												
334419	manufacturing Other electronic component manufacturing	_	2	2	f f	D D	D D	D D	D D	D D	D D	D D	D D
	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA												
31-33	Manufacturing	1	1 557	^r 454	r55 395	^r 2 035 439	r37 648	73 436	'1 197 919	r5 580 812	7 051 139	r12 649 347	r314 534
311	Food manufacturing	1	51	14	h	D	D	D	D	D	D	D	D
3115	Dairy product manufacturing	-	4	2	е	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	2	7	3	444	12 357	357	750	8 775	64 505	74 234	138 282	D
31161	Animal slaughtering and processing	2	7	3	444	12 357	357	750	8 775	64 505	74 234	138 282	D
311612	processing	2	3	2	е		D	D	D	D D	D	D	D
3118	Bakeries and tortilla manufacturing	1	25	6	1 862	61 920	883	1 771	26 865	136 283	73 069	207 709	6 264
31181	Bread and bakery product manufacturing	1	20	6	1 846	61 674	868	1 747	26 659	135 708	72 760	206 826	6 243
311812 311813	manufacturing	3	8	3	f	D D	D D	D	D D	D D	D D	D D	D D
	manuaciumy	. –			'		וט	D		Di	יט	יט	D

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	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA-Con.												
311 3119 31199	Food manufacturing—Con. Other food manufacturing All other food manufacturing	-	8	2 2	f f	D D	D D	D D	D D	D D	D D	D D	D D
311999	All other miscellaneous food manufacturing Beverage and tobacco product	-	5	1	f	D	D	D	D	D	D	D	D
3121	manufacturing Beverage manufacturing	-	4	3 3	e e	D D	D D	D D	D D	D D	D D	D D	D D
31211 312111	Soft drink and ice manufacturing Soft drink manufacturing	_	4 3	3	e e	D D	D D	D D	D D	D D	D D	D D	D D
322	Paper manufacturing	-	15	9	g	D	D	D	D	D	D	D	D
3221 32212	Pulp, paper, and paperboard mills	-	1	1	е	D D	D D	D D	D D	D D	D D	D D	D D
322121	Paper mills	_	1	1	e e	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing	4	14	8	f	D	D	D	D	D	D	D	D
32222 322222	Paper bag and coated and treated paper manufacturing Coated and laminated paper manufacturing	7 9	5 4	4	e 309	D 9 902	D 148	D 303	D 5 516	D 34 808	D 24 536	D 60 248	D 1 177
323	Printing and related support activities	1	144	18	9 g	9 902 D	D	D	D D	D D	24 330 D	00 240 D	D D
3231	Printing and related support activities	1	144	18	g	D	D	D	D	D	D	D	D
32311 323110	Printing Commercial lithographic printing	1 -	132 41	17 9	g f	D D	D D	D D	D D	D D	D D	D D	D D
324	Petroleum and coal products manufacturing	_	18	6	f	D	D	D	D	D	D	D	D
3241	Petroleum and coal products manufacturing	_	18	6	f	D	D	D	D	D	D	D	D
32411 324110	Petroleum refineries Petroleum refineries	_	3	2	f f	D D	D D	D D	D D	D D	D D	D D	D D
325 326	Chemical manufacturing Plastics and rubber products	_	50	14	f	D	D	D	D	D	D	D	D
3261	manufacturing Plastics product manufacturing	1	58 45	20 17	1 629 1 273	48 160 38 790	1 273 979	2 445 1 869	30 572 24 180	125 558 108 293	129 676 120 191	255 246 228 438	10 682 D
32611 32612	Plastics packaging materials and unlaminated film and sheet manufacturing Plastics pipe, pipe fitting, and	_	5	3	335	12 230	233	485	5 676	45 552	71 151	116 591	D
326122	unlaminated profile shape manufacturing Plastics pipe and pipe fitting	2	7	5	377	11 858	311	576	8 902	28 179	25 628	53 884	1 491
32619	manufacturing Other plastics product	2	4 25	4 7	e 431	D 11 109	D 329	D 578	7 326	D 23 844	D 14 204	D 38 207	D D
326199	manufacturing All other plastics product manufacturing	4	25	6	431 e	11 109 D	529 D	576 D	7 320 D	23 644 D	14 204 D	36 207 D	721
3262 32629	Rubber product manufacturing Other rubber product	7	13	3	356	9 370	294	576	6 392	17 265	9 485	26 808	D
326291	manufacturing Rubber product manufacturing for	7	10	3	е	D	D	D	D	D	D	D	D
327	mechanical use Nonmetallic mineral product manufacturing	8	70	26	e h	D D	D D	D D	D D	D D	D D	D D	D D
3271	Clay product and refractory manufacturing	1	5	5	406	12 962	246	493	7 307	57 719	24 104	77 760	952
32712	Clay building material and refractories manufacturing	1	4	4	е	D	D	D	D	D	D	D	D
3272	Glass and glass product manufacturing	-	12	8	2 190	103 387	1 935	3 909	85 361	278 067	202 081	484 442	26 087
32721 327211 327212	Glass and glass product manufacturing Flat glass manufacturing Other pressed and blown	Ξ	12 1	8 1	2 190 f	103 387 D	1 935 D	3 909 D	85 361 D	278 067 D	202 081 D	484 442 D	26 087 D
327213	glass and glassware manufacturing Glass container	-	3	1	f	D	D	D	D	D	D	D	D
327215	manufacturing	1	6	2 4	f e	D D	D D	D D	D D	D D	D D	D D	D D

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NAICS			establisl		7 111 0111	pioyeee							
code	Geographic area and industry	E ¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA—Con.												
327 3273	Nonmetallic mineral product manufacturing—Con. Cement and concrete product manufacturing	1	44	11	f	D	D	D	D	D	D	D	D
32732	Ready-mix concrete												_
327320	manufacturing	_	25 25	4	e e	D D	D D	D D	D D	D D	D D	D D	D D
32739	manufacturing Other concrete product manufacturing	2	11	2	383	10 858	321	725	8 669	31 373	14 492	47 276	1 968
327390	Other concrete product manufacturing	2	11	2	383	10 858	321	725	8 669	31 373	14 492	47 276	1 968
331	Primary metal manufacturing	1	45	22	2 577	101 644	1 963	4 134	65 270	194 586	376 646	575 493	10 767
3311	Iron and steel mills and ferroalloy manufacturing	_	3	3	e	D	D	D	D	D	D	D	D
33111 331111	Iron and steel mills and ferroalloy manufacturing Iron and steel mills	_	3 3	3	e e	D D	D D	D D	D D	D D	D D	D D	D D
3312	Steel product manufacturing from purchased steel	_	13	10	1 452	54 437	1 144	2 377	36 192	105 457	198 885	305 581	D
33121	Iron and steel pipe and tube manufacturing from purchased steel	_	7	7	f	D	D	D	D	D	D	D	D
331210	Iron and steel pipe and tube manufacturing from			_				5					
33122	purchased steel	-	7 6	7	f	D D	D D	D D	D D	D D	D D	D D	D D
331222	purchased steel	=	6	3	e e	D	D	D	D D	D	D	D	D
3315	Foundries	6	24	6	435	14 771	350	733	10 937	38 794	19 733	58 306	1 110
332	Fabricated metal product manufacturing	2	r518	r144	r13 103	r478 468	r9 599	r19 348	r300 710	r1 085 027	r890 751	r1 975 371	r55 184
3321	Forging and stamping	6	16	6	f	D	D	D	D	D	D	D	D
33211 332116	Forging and stamping Metal stamping	6 7	16 9	6 5	f e	D D	D D	D D	D D	D D	D D	D D	D D
3323	Architectural and structural metals manufacturing	2	r115	r31	h	D	D	D	D	D	D	D	D
33231	Plate work and fabricated structural product	_	0.5	00	_	D	D	D	D	D	D	D	D
332312	manufacturing Fabricated structural metal	2	65 36	20 8	g f	D	D	D	D	D	D	D	D
332313 33232	manufacturing Plate work manufacturing Ornamental and architectural metal products	r2	20	9	f	D	D	D	Б	D	D	D	D
332322	manufacturing Sheet metal work manufacturing	3	r50 29	′11 8	'817 517	r26 964 17 976	′595 371	^r 1 121 679	'16 101 10 719	r55 623 32 292	r37 531 17 964	r92 779 50 144	'2 371 1 659
3324	Boiler, tank, and shipping container manufacturing	2	54	34	h	D	D	D	D	D	D	D	13 252
33241	Power boiler and heat exchanger manufacturing	3	32	24	1 998	80 288	1 411	2 932	49 252	172 176	152 695	323 373	11 184
332410	Power boiler and heat exchanger manufacturing	3	32	24	1 998	80 288	1 411	2 932	49 252	172 176	152 695	323 373	11 184
33242	Metal tank (heavy gauge) manufacturing	_	19	10	g	D	D	D	D	D	D	D	1 935
332420	Metal tank (heavy gauge) manufacturing	-	19	10	g	D	D	D	D	D	D	D	1 935
3325	Hardware manufacturing	-	4	2	g	D	D	D	D	D	D	D	D
33251 332510	Hardware manufacturing Hardware manufacturing	_	4 4	2	g g	D D	D D	D D	D D	D D	D D	D D	D D
3326	Spring and wire product manufacturing	_	13	5	633	15 980	521	1 118	12 182	40 267	35 620	77 134	D
33261	Spring and wire product manufacturing		13	5	633	15 980	521	1 118	12 182	40 267	35 620	77 134	D
332618	Other fabricated wire product manufacturing	_	9	2	е	13 980 D	D	D D	12 102 D	40 207 D	33 020 D	77 134 D	D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing	4	185	25	2	D	D	D	D	D	D	D	9 585
33271	manuaciumy	4	100		g				D	D	D		6 605
	Machine shops	.3	168	21	n	13		111				1)1	
332710 33272	Machine shops	3	168 168	21 21	g g	D D	D D	D D	D D	D	D	D D	6 605

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1011110	aning of appreviations and symbols, see	J max	A establisl	JI I	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA—Con.												
332 3328	Fabricated metal product manufacturing—Con. Coating, engraving, heat treating, and allied activities	5	43	13	f	D	D	D	D	D	D	D	D
33281 332812	Coating, engraving, heat treating, and allied activities Metal coating, engraving (except jewelry and	5	43	13	f	D	D	D	D	D	D	D	D
332813	silverware), and allied services to manufacturers Electroplating, plating, polishing, anodizing, and	5 4	18	7	530	18 397	438 D	877	13 107	44 042	27 460	71 346 D	4 567 D
3329	coloring Other fabricated metal product manufacturing	4	20 82	28	e 2 195	D 84 675	1 582	D 3 143	D 49 129	185 707	D 139 089	329 391	D
33291 332911	Metal valve manufacturing Industrial valve manufacturing	2	19 10	6 5	480 e	22 214 D	310 D	681 D	11 995 D	46 448 D	29 490 D	77 681 D	3 016 D
33299	All other fabricated metal product manufacturing	5	63	22	1 715	62 461	1 272	2 462	37 134	139 259	109 599	251 710	D
332996	Fabricated pipe and pipe fitting manufacturing	5	24	13	g	D	D	 D	D	D	D	D	D
332999	All other miscellaneous fabricated metal product manufacturing	4	25	8	е	D	D	D	D	D	D	D	D
333	Machinery manufacturing	1	187	79	11 881	453 800	6 216	12 007	189 335	1 185 289	1 065 916	2 290 558	54 496
3331	Agriculture, construction, and mining machinery manufacturing	4	35	17	g	D	D	D	D	D	D	D	D
33312	Construction machinery manufacturing	7	7	5	f	D	D	D	D	D	D	D	4 541
333120	Construction machinery manufacturing	7	7	5	f	D	D	D	D	D	D	D	4 541
33313	Mining and oil and gas field machinery manufacturing	_	26	12	1 212	49 808	782	1 491	27 231	137 496	105 291	249 005	D
333132	Oil and gas field machinery and equipment manufacturing	_	26	12	1 212	49 808	782	1 491	27 231	137 496	105 291	249 005	D
3332	Industrial machinery manufacturing	1	28	11	h	D	D	D	D	D	D	D	D
33322	Plastics and rubber industry machinery manufacturing	_	2	2	е	D	D	D	D	D	D	D	D
333220 33329	Plastics and rubber industry machinery manufacturing Other industrial machinery	_	2	2	е	D	D	D	D	D	D	D	D
333298	manufacturing	1	26	9	h	D	D	D	D	D	D	D	D
	manufacturing	1	19	9	h	D	D	D	D	D	D	D	D
3333	Commercial and service industry machinery manufacturing Commercial and service	_	11	4	1 065	48 337	523	1 106	14 152	122 494	122 022	244 773	2 767
	industry machinery manufacturing	_	11	4	1 065	48 337	523	1 106	14 152	122 494	122 022	244 773	2 767
333313 333319	Office machinery manufacturing Other commercial and	_	1	1	е	D	D	D	D	D	D	D	D
000013	service industry machinery manufacturing	_	8	3	f	D	D	D	D	D	D	D	D
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	2	19	8	g	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air- conditioning, and commercial refrigeration equipment												
333415	manufacturing	2	19	8	g	D	D	D	D	D	D	D	D
	manufacturing	1	8	4	f	D	D	D	D	D	D	D	D
3335	Metalworking machinery manufacturing	4	29	5	306	9 687	220	447	6 183	22 172	10 432	32 620	D
33351	Metalworking machinery manufacturing	4	29	5	306	9 687	220	447	6 183	22 172	10 432	32 620	D

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Forme	aning of abbreviations and symbols, see	# II IU 1	A establish	JI I	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry		establisi	With 20 em- ploy-		Dougell		Have	Warra	Volus addad	Total cost of	Total value of	Total capital expendi-
		E1	Total	ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	materials (\$1,000)	shipments (\$1,000)	tures (\$1,000)
	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA—Con.												
333 3336	Machinery manufacturing—Con. Engine, turbine, and power transmission equipment manufacturing	_	6	4	477	24 247	342	785	11 077	85 323	74 282	171 485	2 991
33361	Engine, turbine, and power transmission equipment manufacturing	_	6	4	477	24 247	342	785	11 077	85 323	74 282	171 485	2 991
333611	Turbine and turbine generator set units manufacturing	_	2	2	e	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing	1	59	30	h	D	D	D	D	D	D	D	D
33391	Pump and compressor manufacturing	1	19	13	g	D	D	D	D	D	D	D	D
333911	Pump and pumping equipment manufacturing	1	12	9	g	D	D	D	D	D	D	D	D
333912	Air and gas compressor manufacturing	_	7	4	e e	D	D	D	D	D	D	D	D
33392	Material handling equipment manufacturing	2	10	6	664	27 416	428	782	13 940	55 409	57 607	118 919	1 932
333923	Overhead traveling crane, hoist, and monorail system manufacturing	2	8	6	6 f	27 410 D	420 D	762 D	13 940 D	33 409 D	37 007 D	110 919 D	1 932 D
33399	All other general purpose machinery manufacturing	2	30	11	f	D	D	D	D	D	D	D	D
333994	Industrial process furnace and oven manufacturing	7	7	4	278	12 393	194	396	6 847	16 979	17 661	38 098	870
333999	All other miscellaneous general purpose machinery manufacturing	_	17	4	e	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing	1	59	15	g	D	D	D	D	D	D	D	D
3342	Communications equipment manufacturing	-	8	1	959	12 515	497	557	4 244	37 543	44 862	87 369	D
33422 334220	Radio and television broadcasting and wireless communications equipment manufacturing Radio and television broadcasting and wireless	-	6	1	f	D	D	D	D	D	D	D	D
	communications equipment manufacturing	-	6	1	f	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing	1	17	6	581	19 003	416	869	10 721	28 936	22 970	49 979	1 288
33441	Semiconductor and other electronic component manufacturing	1	17	6	581	19 003	416	869	10 721	28 936	22 970	49 979	1 288
334418	Printed circuit assembly (electronic assembly) manufacturing	_	4	2	е	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing	2	29	8	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing	2	29	8	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing	_	r38	15	g	D	D	D	D	D	D	D	D
3352	Household appliance manufacturing	_	r3	1	g	D	D	D	D	D	D	D	D
33522 335221	Major appliance manufacturing. Household cooking appliance manufacturing	-	r3	1 1	g g	D D	D D	D D	D D	D D	D D	D D	D D
3353	Electrical equipment manufacturing	1	24	11	782	27 284	540	1 004	14 827	70 832	88 336	155 054	D
33531	Electrical equipment manufacturing	1	24	11	782	27 284	540	1 004	14 827	70 832	88 336	155 054	D
335312	Motor and generator manufacturing	1	10	6	e	D D	D	D	D	70 002 D	D	D	D
335313	Switchgear and switchboard apparatus manufacturing	_	6	3	e	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing	_	66	31	i	D	D	D	D	D	D	D	D
3361	Motor vehicle manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
33612	Heavy duty truck manufacturing		2	2		D	D	D	D	D	D	D	D
336120	Heavy duty truck manufacturing	_	2	2	f	D	D	D	D	D	D	D	D

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For me	aning of abbreviations and symbols, see	e intro	Δ	JI I	All am	mla va a a	Dw		Irana				
			establis	hments ²	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA—Con.												
336 3362	Transportation equipment manufacturing—Con. Motor vehicle body and trailer manufacturing	4	12	7	е	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer manufacturing	4	12	7	e	D	D	D	D	D	D	D	D
336214	Travel trailer and camper manufacturing	3	7	4	e	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing	_	17	6	985	42 572	646	1 331	21 139	46 593	185 913	234 497	3 941
33639	Other motor vehicle parts		5	3	707	32 179	422	972	14 528	30 853	156 818	186 117	D
336399	manufacturing All other motor vehicle parts manufacturing	_	5	3	707	32 179	422	972	14 528	30 853	156 818	186 117	D
3364	Aerospace product and parts manufacturing	_	30	16	4 149	190 056	2 875	6 028	143 114	388 794	537 497	909 231	25 743
33641 336411	Aerospace product and parts manufacturing Aircraft manufacturing	_	30 3	16 2	4 149	190 056	2 875 D	6 028 D	143 114 D	388 794 D	537 497 D	909 231 D	25 743 D
336412	Aircraft engine and engine parts manufacturing	5	11	6	e	D	D	D	D	D	D	D	D
336413	Other aircraft parts and auxiliary equipment manufacturing	_	16	8	2 959	132 809	1 887	3 862	99 967	266 283	448 212	690 196	D
337	Furniture and related product manufacturing	3	45	9	508	14 091	406	743	9 542	25 311	20 176	45 220	D
3371	Household and institutional furniture and kitchen cabinet manufacturing	4	31	6	365	9 628	303	542	6 885	15 949	10 744	26 755	D
33711	Wood kitchen cabinet and countertop manufacturing	3	18	4	274	7 345	226	379	5 159	12 068	7 336	19 467	D
337110	Wood kitchen cabinet and countertop manufacturing	3	18	4	274	7 345	226	379	5 159	12 068	7 336	19 467	D
339	Miscellaneous manufacturing	2	113	20	g	D	D	D	D	D	D	D	D
3391	Medical equipment and supplies manufacturing	6	35	5	е	D	D	D	D	D	D	D	D
33911	Medical equipment and supplies manufacturing	6	35	5	е	D	D	D	D	D	D	D	D
3399	Other miscellaneous manufacturing	1	78	15	g	D	D	D	D	D	D	D	D
33992	Sporting and athletic goods manufacturing	_	16	6	905	27 650	645	1 242	15 184	67 968	76 838	149 942	7 399
339920 33999	Sporting and athletic goods manufacturing All other miscellaneous	-	16	6	905	27 650	645	1 242	15 184	67 968	76 838	149 942	7 399
339999	manufacturing	1 -	34 25	6	e e	D D	D D	D D	D D	D D	D D	D D	D D
	Bartlesville, OK Micropolitan Statistical Area												
31-33	Manufacturing	5	48	8	1 557	54 819	996	2 011	22 345	50 022	99 705	162 194	3 485
332	Fabricated metal product manufacturing	2	14	2	253	9 784	187	389	6 381	7 836	9 659	17 936	666
333	Machinery manufacturing	8	8	3	814	32 542	438	722	7 583	25 647	57 725	84 948	2 193
3339	Other general purpose machinery manufacturing	9	4	2	f	D	D	D	D	D	D	D	D
33391 333911	Pump and compressor manufacturing	9	2	1	f	D	D	D	D	D	D	D	D
333911	Pump and pumping equipment manufacturing	9	1	1	f	D	D	D	D	D	D	D	D
	Tulsa, OK Metropolitan Statistical Area												
31-33	Manufacturing	1	1 509	r446	r53 838	r1 980 620	r36 652	71 425	r1 175 574	r5 530 790	¹ 6 951 434	12 487 153	r311 049
311 3115	Food manufacturing Dairy product manufacturing	1 -	50 3	14	3 395 e	104 147 D	2 092 D	3 408 D	56 719 D	383 456 D	240 910 D	616 916 D	14 173 D
3116	Animal slaughtering and processing	2	7	3	444	12 357	357	750	8 775	64 505	74 234	138 282	D
31161	Animal slaughtering and processing	2	7	3	444	12 357	357	750	8 775	64 505	74 234	138 282	D
311612	Meat processed from carcasses	2	3	2	е	D	D	D	D	D	D	D	D

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For me	eaning of abbreviations and symbols, see	e intre	Α	JI I	A.U	-1	D.	- d att					
			establis	hments ²	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA-Con.												
	Tulsa, OK Metropolitan Statistical Area—Con.												
311 3118	Food manufacturing—Con. Bakeries and tortilla manufacturing	1	25	6	1 862	61 920	883	1 771	26 865	136 283	73 069	207 709	6 264
31181	Bread and bakery product	1	20	6	1 846	61 674	868	1 747	26 659	135 708	72 760	206 826	6 243
311812 311813	manufacturing	3	8	3	f	D	D D	D	D	D	D D	D D	D
3119	manufacturing Other food manufacturing	_	8	2	f	D	D	D	D	D	D	D	D
31199	All other food manufacturing	_	6	2	f	D	D	D	D	D	D	D	D
311999	All other miscellaneous food manufacturing	_	5	1	f	D	D	D	D	D	D	D	D
312	Beverage and tobacco product manufacturing	_	4	3	е	D	D	D	D	D	D	D	D
3121	Beverage manufacturing	_	4	3	е	D	D	D	D	D	D	D	D
31211	Soft drink and ice manufacturing	_	4	3	е	D	D	D	D	D	D	D	D
312111	Soft drink manufacturing	_	3	3	е	D	D	D	D	D	D	D	D
322 3221	Paper manufacturing Pulp, paper, and paperboard	_	15	9	g	D	D	D	D	D	D	D	D
	mills	_	1	1	е	D	D	D	D	D	D	D	D
32212 322121	Paper mills	- -	1	1	e e	D D	D D	D D	D D	D D	D D	D D	D D
3222	Converted paper product manufacturing	4	14	8	f	D	D	D	D	D	D	D	D
32222	Paper bag and coated and treated paper manufacturing	7	5	4	е	D	D	D	D	D	D	D	D
322222	Coated and laminated paper manufacturing	9	4	3	309	9 902	148	303	5 516	34 808	24 536	60 248	1 177
323	Printing and related support activities	1	139	17	1 480	48 443	1 054	1 906	26 688	104 869	56 608	153 348	8 408
3231	Printing and related support activities	1	139	17	1 480	48 443	1 054	1 906	26 688	104 869	56 608	153 348	8 408
32311 323110	Printing Commercial lithographic	1	127	16	g	D	D	D	D	D	D	D	8 318
	printing	-	40	9	759	23 488	597	1 065	14 593	57 029	30 364	79 603	6 986
324	Petroleum and coal products manufacturing	_	17	6	927	47 987	590	1 218	27 173	221 639	1 586 771	1 782 377	D
3241	Petroleum and coal products manufacturing	_	17	6	927	47 987	590	1 218	27 173	221 639	1 586 771	1 782 377	D
32411 324110	Petroleum refineries Petroleum refineries	<u>-</u>	3 3	2 2	f f	D D	D D	D D	D D	D D	D D	D D	D D
325	Chemical manufacturing	_	47	14	893	45 336	580	1 186	25 149	222 468	290 567	520 216	15 050
326	Plastics and rubber products manufacturing	2	58	20	1 629	48 160	1 273	2 445	30 572	125 558	129 676	255 246	10 682
3261	Plastics product manufacturing	1	45	17	1 273	38 790	979	1 869	24 180	108 293	120 191	228 438	D
32611 32612	Plastics packaging materials and unlaminated film and sheet manufacturing Plastics pipe, pipe fitting, and	_	5	3	335	12 230	233	485	5 676	45 552	71 151	116 591	D
000400	unlaminated profile shape manufacturing	2	7	5	377	11 858	311	576	8 902	28 179	25 628	53 884	1 491
326122 32619	Plastics pipe and pipe fitting manufacturing Other plastics product	2	4	4	е	D	D	D	D	D	D	D	D
326199	manufacturing	3	25	7	431	11 109	329	578	7 326	23 844	14 204	38 207	D
3262	manufacturing Rubber product manufacturing	7	24 13	6	e 356	D 9 370	D 294	D 576	6 392	D 17 265	D 9 485	D 26 808	721 D
32629	Other rubber product												
326291	manufacturing	7	10	3	е	D	D	D	D	D	D	D	D
	manufacturing for mechanical use	8	8	2	е	D	D	D	D	D	D	D	D

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For me	aning of abbreviations and symbols, sec	e intro	·										
			establis	ll hments ²	All em	oloyees	Pro	duction work	ers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA—Con.												
	Tulsa, OK Metropolitan Statistical Area — Con.												
327	Nonmetallic mineral product manufacturing	_	67	26	3 631	150 158	3 048	6 220	118 290	456 112	302 247	757 356	34 496
3271	Clay product and refractory manufacturing	1	5	5	406	12 962	246	493	7 307	57 719	24 104	77 760	952
32712	Clay building material and refractories manufacturing	1	4	4	e	D	D	D	D	D	D	D	D
3272	Glass and glass product manufacturing	_	12	8	2 190	103 387	1 935	3 909	85 361	278 067	202 081	484 442	26 087
32721	Glass and glass product manufacturing	_	12	8	2 190	103 387	1 935	3 909	85 361	278 067	202 081	484 442	26 087
327211 327212	Flat glass manufacturing Other pressed and blown glass and glassware	-	1	1	f	D	D	D	D	D	D	D	D
327213	manufacturing	_	3 2	1 2	f f	D D	D D	D D	D D	D D	D D	D D	D D
327215	Glass product manufacturing made of purchased glass	1	6	4	е	D	D	D	D	D	D	D	D
3273	Cement and concrete product manufacturing	1	41	11	911	29 577	772	1 625	23 007	107 138	62 856	168 633	6 478
32739 327390	Other concrete product manufacturing	2	11	2	383	10 858	321	725	8 669	31 373	14 492	47 276	1 968
	Other concrete product manufacturing	2	11	2	383	10 858	321	725	8 669	31 373	14 492	47 276	1 968
331 3311	Primary metal manufacturing Iron and steel mills and ferroalloy	1	45	22	2 577	101 644	1 963	4 134	65 270	194 586	376 646	575 493	10 767
33111	manufacturing	-	3	3	е	D	D	D	D	D	D	D	D
331111	ferroalloy manufacturing	_	3 3	3 3	e e	D D	D D	D D	D D	D D	D D	D D	D D
3312	Steel product manufacturing from purchased steel	_	13	10	1 452	54 437	1 144	2 377	36 192	105 457	198 885	305 581	D
33121	Iron and steel pipe and tube manufacturing from purchased steel	_	7	7	f	D	D	D	D	D	D	D	D
331210	Iron and steel pipe and tube manufacturing from purchased steel	_	7	7	f	D	D	D	D	D	D	D	D
33122 331222	Rolling and drawing of purchased steel	_	6	3	е	D D	D D	D D	D D	D D	D D	D D	D D
3315	Steel wire drawing	6	24	6	e 435	14 771	350	733	10 937	38 794	19 733	58 306	1 110
332	Fabricated metal product manufacturing	2	r504	r142	r12 850	r468 684	r9 412	r18 959	r294 329	r1 077 191	r881 092	r1 957 435	r54 518
3321	Forging and stamping	6	15	6	f	D	D	D	D	D	D	D	D
33211 332116	Forging and stamping Metal stamping	6 7	15 8	6 5	f 349	D 9 155	D 232	D 447	D 5 628	D 25 578	D 17 790	D 43 397	D 1 329
3323	Architectural and structural metals manufacturing	2	r113	r30	r2 442	r89 642	r1 650	r3 320	^r 51 498	r207 684	r171 964	r378 360	r10 001
33231	Plate work and fabricated structural product manufacturing	2	63	19	^r 1 625	'62 678	^r 1 055	r2 199	'35 397	r152 061	r134 433	^r 285 581	^r 7 630
332312	Fabricated structural metal manufacturing	2	35	7	651	23 062	485	977	14 584	62 986	60 222	123 236	1 829
332313 33232	Plate work manufacturing Ornamental and architectural metal products	1	19	9	^r 804	'34 466	^r 453	¹ 998	r17 675	76 765	'61 769	r137 553	^r 5 182
332322	manufacturing Sheet metal work manufacturing	3	r50 29	'11 8	'817 517	'26 964 17 976	¹ 595	'1 121 679	'16 101 10 719	'55 623 32 292	'37 531 17 964	'92 779 50 144	^r 2 371 1 659
3324	Boiler, tank, and shipping container manufacturing	2	53	34	3 229	131 677	2 144	4 285	74 797	238 279	292 148	530 677	13 252
33241	Power boiler and heat exchanger manufacturing	3	32	24	1 998	80 288	1 411	2 932	49 252	172 176	152 695	323 373	11 184
332410 33242	Power boiler and heat exchanger manufacturing Metal tank (heavy gauge)	3	32	24	1 998	80 288	1 411	2 932	49 252	172 176	152 695	323 373	11 184
332420	manufacturing	-	18	10	g	D	D	D	D	D	D	D	1 935
3325	manufacturing Hardware manufacturing	_	18 4	10	g g	D D	D D	D D	D D	D D	D D	D D	1 935 D
33251	Hardware manufacturing	-	4 4	2 2	g g	D	D	D	D	D	D	D	D D
332510	Hardware manufacturing	-	1 4	. 21	ı gı	וט	וט	וט	וט	וט	DI	וט	ט

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Torme	eaning of abbreviations and symbols, see	e intro	Δ	JI	All em	ployees	Pro	oduction work	vers				
NAICC			establis		All elli	pioyees	FIC	duction work	keis				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA-Con.												
	Tulsa, OK Metropolitan Statistical Area—Con.												
332 3326	Fabricated metal product manufacturing—Con. Spring and wire product manufacturing	-	13	5	633	15 980	521	1 118	12 182	40 267	35 620	77 134	D
33261 332618	Spring and wire product manufacturing Other fabricated wire product manufacturing		13 9	5 2	633 e	15 980 D	521 D	1 118 D	12 182 D	40 267 D	35 620 D	77 134 D	D D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing	4	180	25	1 940	74 925	1 516	2 978	53 270	148 022	70 091	214 267	9 531
33271 332710 33272	Machine shops Machine shops Turned product and screw, nut, and bolt manufacturing	3 3 7	163 163 17	21 21 4	1 494 1 494 446	54 301 54 301 20 624	1 158 1 158 358	2 186 2 186 792	38 034 38 034 15 236	105 221 105 221 42 801	41 736 41 736 28 355	144 988 144 988 69 279	6 551 6 551 2 980
332722	Bolt, nut, screw, rivet, and washer manufacturing	9	4	3	e	20 024 D	D	7 92 D	13 230 D	42 801 D	26 333 D	03 279 D	2 227
3328	Coating, engraving, heat treating, and allied activities	5	42	13	854	29 246	693	1 369	20 415	65 820	33 102	98 837	5 906
33281 332812	Coating, engraving, heat treating, and allied activities Metal coating, engraving (except jewelry and silverware), and allied	5	42	13	854	29 246	693	1 369	20 415	65 820	33 102	98 837	5 906
332813	services to manufacturers Electroplating, plating, polishing, anodizing, and coloring	5 4	18	7	530 e	18 397 D	438 D	877 D	13 107 D	44 042 D	27 460 D	71 346 D	4 567 D
3329	Other fabricated metal product manufacturing	4	79	27	2 118	81 023	1 519	3 005	46 266	181 762	134 005	320 362	7 839
33291 332911	Metal valve manufacturing Industrial valve	2	19	6	480	22 214	310	681	11 995	46 448	29 490	77 681	3 016
33299	manufacturing All other fabricated metal product manufacturing	5	10 60	5 21	e 1 638	D 58 809	D 1 209	D 2 324	D 34 271	D 135 314	D 104 515	D 242 681	D 4 823
332996 332999	Fabricated pipe and pipe fitting manufacturing	6	23	13	1 056	37 469	813	1 648	22 050	91 921	60 854	154 548	2 555
333	manufacturing	4	23 179	7 76	419 11 067	14 981 421 258	268	489 11 285	7 556	38 107	26 470	64 843 2 205 610	D 52 303
3331	Agriculture, construction, and mining machinery manufacturing	4	34	17	1 790	74 201	5 778 1 110	2 132	181 752 36 912	1 159 642 235 776	1 008 191 229 510	479 541	7 551
33312	Construction machinery manufacturing	7	7	5	f	D	D	D	D	D	D	D	4 541
333120	Construction machinery manufacturing	7	7	5	f	D	D	D	D	D	D	D	4 541
33313 333132	Mining and oil and gas field machinery manufacturing Oil and gas field machinery	-	26	12	1 212	49 808	782	1 491	27 231	137 496	105 291	249 005	D
	and equipment manufacturing	-	26	12	1 212	49 808	782	1 491	27 231	137 496	105 291	249 005	D
3332	Industrial machinery manufacturing	1	27	11	3 363	101 045	1 080	1 986	38 092	198 486	153 291	346 947	D
33322	Plastics and rubber industry machinery manufacturing	-	2	2	е	D	D	D	D	D	D	D	D
333220 33329	Plastics and rubber industry machinery manufacturing Other industrial machinery	-	2	2	е	D	D	D	D	D	D	D	D
333298	manufacturing	1	25 18	9	h	D 77 572	D 780	D 1 397	D 07 010	D 156 427	D	D 271 455	D D
3333	manufacturing Commercial and service industry machinery manufacturing	_	11	4	2 854 1 065	48 337	523	1 106	27 613 14 152	122 494	119 582 122 022	244 773	2 767
33331	Commercial and service industry machinery		''	4	1 003	40 337	323	1 100	14 132	122 494	122 022	244 773	2 707
333313	manufacturing	-	11	4	1 065	48 337	523	1 106	14 152	122 494	122 022	244 773	2 767
333319	manufacturing Other commercial and service industry machinery manufacturing	_	1 8	3	e f	D D	D D	D D	D D	D D	D D	D D	D D
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing			7	1 031	36 185	777	1 438	19 311		95 606	195 917	2 429

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			A establisl	.ll hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA—Con.												
	Tulsa, OK Metropolitan Statistical Area—Con.												
333 3334	Machinery manufacturing—Con. Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing—Con.												
33341	Ventilation, heating, air- conditioning, and commercial refrigeration equipment												
333415	manufacturing	2	17	7	1 031	36 185 D	777 D	1 438 D	19 311 D	100 170 D	95 606 D	195 917 D	2 429
3335	Metalworking machinery manufacturing	4	29	5	306	9 687	220	447	6 183	22 172	10 432	32 620	D
33351	Metalworking machinery	4											D
3336	manufacturing Engine, turbine, and power transmission equipment manufacturing	-	29	5	306 477	9 687 24 247	220 342	447 785	6 183	22 172 85 323	10 432 74 282	32 620 171 485	2 991
33361	Engine, turbine, and power			4	4//	24 247	342	763	11 077	65 323	74 202	171 403	2 991
333611	transmission equipment manufacturing Turbine and turbine generator set units	-	6	4	477	24 247	342	785	11 077	85 323	74 282	171 485	2 991
2220	manufacturing	-	2	2	е	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing	-	55	28	3 035	127 556	1 726	3 391	56 025	395 221	323 048	734 327	13 851
33391 333911	Pump and compressor manufacturing	_	17	12	1 556	67 139	811	1 660	26 569	280 937	215 194	501 203	10 037
333911	Pump and pumping equipment manufacturing Air and gas compressor	-	11	8	1 081	47 480	561	1 264	19 302	240 189	138 616	373 380	D
33392	manufacturing Material handling equipment	-	6	4	475	19 659	250	396	7 267	40 748	76 578	127 823	D
333923	manufacturing Overhead traveling crane,	2	10	6	664	27 416	428	782	13 940	55 409	57 607	118 919	1 932
33399	hoist, and monorail system manufacturing All other general purpose	2	8	6	f	D	D	D	D	D	D	D	D
333994	machinery manufacturing Industrial process furnace	2	28	10	815	33 001	487	949	15 516	58 875	50 247	114 205	1 882
333999	and oven manufacturing All other miscellaneous	7	7	4	278	12 393	194	396	6 847	16 979	17 661	38 098	870
	general purpose machinery manufacturing	-	16	4	480	18 262	265	493	7 735	36 554	27 877	66 182	918
334	Computer and electronic product manufacturing	1	57	15	2 238	62 180	1 280	2 181	26 846	125 199	116 396	242 529	4 824
3342	Communications equipment manufacturing	_	8	1	959	12 515	497	557	4 244	37 543	44 862	87 369	D
33422	Radio and television broadcasting and wireless communications equipment												
334220	manufacturing	-	6	1	f	D	D	D	D	D	D	D	D
	manufacturing	-	6	1	f	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing	1	17	6	581	19 003	416	869	10 721	28 936	22 970	49 979	1 288
33441	Semiconductor and other electronic component												
334418	manufacturing	1	17	6	581	19 003	416	869	10 721	28 936	22 970	49 979	1 288
	manufacturing	-	4	2	е	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing	2	27	8	681	30 095	354	728	11 556	57 484	47 696	103 083	1 438
33451	Navigational, measuring, electromedical, and control instruments manufacturing	2	27	8	681	30 095	354	728	11 556	57 484	47 696	103 083	1 438

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	aning of appreviations and symbols, see		establis	JI I	All em	ployees	Pro	oduction work	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA—Con.												
	Tulsa, OK Metropolitan Statistical Area—Con.												
335	Electrical equipment, appliance, and component manufacturing	_	⁷ 37	15	^r 2 414	r66 765	^r 1 999	'3 418	^r 45 777	⁷ 224 027	r359 044	r589 995	^r 15 913
3352	Household appliance manufacturing	_	13	1	g	D	D	D	D	D	D	D	D
33522 335221	Major appliance manufacturing. Household cooking appliance manufacturing	- -	r3 r3	1	g g	D D	D D	D D	D D	D D	D D	D D	D D
3353	Electrical equipment manufacturing	1	24	11	782	27 284	540	1 004	14 827	70 832	88 336	155 054	D
33531	Electrical equipment manufacturing	1	24	11	782	27 284	540	1 004	14 827	70 832	88 336	155 054	D
335312 335313	Motor and generator manufacturing Switchgear and switchboard	1	10	6	е	D D	D D	D D	D D	D D	D D	D D	D D
336	apparatus manufacturing Transportation equipment	_	6	3	е	U	U	U	U D	D	D	D	D
3361	manufacturing Motor vehicle manufacturing	_	64 2	30 2	6 227 f	269 461 D	4 409 D	9 054 D	191 504 D	624 145 D	990 389 D	1 598 703 D	32 094 D
33612	Heavy duty truck	_		2	'	D	Б	Ы			D	Ь	D
336120	manufacturing Heavy duty truck manufacturing	_	2 2	2	f f	D D	D D	D D	D D	D D	D D	D D	D D
3362	Motor vehicle body and trailer manufacturing	5	11	6	e	D	D	D	D	D	D	D	220
33621	Motor vehicle body and trailer manufacturing	5	11	6	e	D	D	D	D	D	D	D	220
3363	Motor vehicle parts manufacturing	_	17	6	985	42 572	646	1 331	21 139	46 593	185 913	234 497	3 941
33639	Other motor vehicle parts manufacturing	_	5	3	707	32 179	422	972	14 528	30 853	156 818	186 117	D
336399	All other motor vehicle parts manufacturing	_	5	3	707	32 179	422	972	14 528	30 853	156 818	186 117	D
3364	Aerospace product and parts manufacturing	_	30	16	4 149	190 056	2 875	6 028	143 114	388 794	537 497	909 231	25 743
33641	Aerospace product and parts manufacturing	_	30	16 2	4 149	190 056 D	2 875 D	6 028 D	143 114 D	388 794 D	537 497	909 231 D	25 743 D
336411 336412	Aircraft manufacturing Aircraft engine and engine parts manufacturing	5	11	6	e	D	D	D	D	D	D D	D	D
336413	Other aircraft parts and auxiliary equipment manufacturing	_	16	8	2 959	132 809	1 887	3 862	99 967	266 283	448 212	690 196	D
337	Furniture and related product manufacturing	3	45	9	508	14 091	406	743	9 542	25 311	20 176	45 220	D
3371	Household and institutional furniture and kitchen cabinet manufacturing	4	31	6	365	9 628	303	542	6 885	15 949	10 744	26 755	D
33711	Wood kitchen cabinet and												
337110	countertop manufacturing Wood kitchen cabinet and countertop manufacturing	3	18 18	4	274 274	7 345 7 345	226 226	379 379	5 159 5 159	12 068 12 068	7 336 7 336	19 467 19 467	D D
339	Miscellaneous manufacturing	2	111	20	1 885	59 147	1 345	2 512	33 089	141 133	113 141	259 013	13 021
3391	Medical equipment and supplies manufacturing	6	34	5	336	11 817	239	425	6 478	28 431	9 529	38 009	1 041
33911	Medical equipment and supplies manufacturing	6	34	5	336	11 817	239	425	6 478	28 431	9 529	38 009	1 041
3399	Other miscellaneous manufacturing	1	77	15	1 549	47 330	1 106	2 087	26 611	112 702	103 612	221 004	11 980
33992	Sporting and athletic goods manufacturing	_	16	6	905	27 650	645	1 242	15 184	67 968	76 838	149 942	7 399
339920	Sporting and athletic goods manufacturing	_	16	6	905	27 650	645	1 242	15 184	67 968	76 838	149 942	7 399
33999 339999	All other miscellaneous manufacturing	1	33	6	460	13 584	337	608	8 244	34 467	17 752	51 775	3 443
555555	manufacturing	l –	24	3	е	D	D	D	D	D	D	D	3 173

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For me	eaning of abbreviations and symbols, see	e intre	Dauctory to										
			establis	hments ²	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	ADA, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	1	55	13	1 455	38 153	967	1 935	18 378	178 117	106 559	283 131	5 186
326	Plastics and rubber products manufacturing	_	3	2	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
	ALTUS, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	_	16	4	872	24 702	740	1 624	18 960	83 062	134 266	217 601	D
311	Food manufacturing	-	2	1	f	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	_	1	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	_	1	1	f	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	_	1	1	f	D	D	D	D	D	D	D	D
	ARDMORE, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	6	51	14	3 409	151 090	2 890	5 388	120 590	447 648	1 070 242	1 481 696	25 199
311	Food manufacturing	8	4	3	е	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing	9	2	1	е	D	D	D	D	D	D	D	D
31182	Cookie, cracker, and pasta manufacturing	9	2	1	е	D	D	D	D	D	D	D	D
311821	Cookie and cracker manufacturing	9	2	1	е	D	D	D	D	D	D	D	D
324	Petroleum and coal products manufacturing	9	5	2	е	D	D	D	D	D	D	D	D
3241	Petroleum and coal products manufacturing	9	5	2	е	D	D	D	D	D	D	D	D
32411 324110	Petroleum refineries Petroleum refineries	9	1	1 1	e e	D D	D D	D D	D D	D D	D D	D D	D D
326	Plastics and rubber products manufacturing	_	2	2	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing	_	1	1	g	D	D	D	D	D	D	D	D
32621 326211	Tire manufacturing Tire manufacturing (except	_	1	1	g	D	D	D	D	D	D	D	D
320211	retreading)	-	1	1	g	D	D	D	D	D	D	D	D
	DUNCAN, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	2	53	11	1 814	66 401	1 254	2 283	34 029	121 065	210 299	338 334	7 939
332	Fabricated metal product manufacturing	3	22	5	359	11 733	280	613	7 957	25 600	9 919	33 846	969
333	Machinery manufacturing	_	9	3	f	D	D	D	D	D	D	D	D
3331	Agriculture, construction, and mining machinery manufacturing	_	5	2	f	D	D	D	D	D	D	D	D
33313	Mining and oil and gas field machinery manufacturing	_	4	2	f	D	D	D	D	D	D	D	D
333132	Oil and gas field machinery and equipment manufacturing		4	2	f		D	D			D	D	D

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Forme	aning of abbreviations and symbols, see		Δ	JI I	All em	ployees	Pro	oduction worl	vers				
NAICS			establis		7111 0111	pioyees		oddollon won	1010				
code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	DURANT, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	4	43	10	1 404	36 657	1 094	2 318	22 934	89 847	138 775	228 073	8 073
311	Food manufacturing	9	4	1	е	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	9	4	1	е	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	9	4	1	е	D	D	D	D	D	D	D	D
311611	Animal (except poultry) slaughtering	9	2	1	е	D	D	D	D	D	D	D	D
333	Machinery manufacturing	-	5	2	е	D	D	D	D	D	D	D	D
3335	Metalworking machinery manufacturing	_	3	1	е	D	D	D	D	D	D	D	D
33351	Metalworking machinery					D	D	D	D	D	5	D	D
333511	manufacturing Industrial mold manufacturing	_	1	1	e e	D D	D	D	D	D	D D	D	D
	ENID, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	1	63	15	1 228	39 379	913	1 717	26 165	140 901	279 386	423 077	12 155
	GUYMON, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	-	9	3	g	D	D	D	D	D	D	D	D
311	Food manufacturing	-	5	3	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	-	1	1	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	_	1	1	g	D	D	D	D	D	D	D	D
311611	Animal (except poultry) slaughtering	-	1	1	g	D	D	D	D	D	D	D	D
	LAWTON, OK METROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	-	53	12	3 316	145 915	2 910	6 454	124 936	379 997	377 307	756 900	13 406
311	Food manufacturing	1	7	3	421	11 211	373	776	9 017	31 939	48 613	80 548	2 104
3116	Animal slaughtering and processing	1	3	2	е	D	D	D	D	D	D	D	D
31161 311612	Animal slaughtering and processing	1	3	2	е	D	D	D	D	D	D	D	D
0	carcasses	-	1	1	е	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing	-	3	2	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing	-	2	1	g	D	D	D	D	D	D	D	D
32621 326211	Tire manufacturing Tire manufacturing (except	-	2	1	g	D	D	D	D	D	D	D	D
	mcalester, ok Micropolitan	_	1	1	g	D	D	D	D	D	D	D	D
31-33	STATISTICAL AREA Manufacturing	_	26	6	741	21 021	602	1 213	15 534	37 159	158 869	196 313	2 672
0.00	MIAMI, OK MICROPOLITAN					2. 02.	552	. 2.0	.0 00.	0, 100	100 000	100 010	2 0.2
31-33	STATISTICAL AREA Manufacturing	3	55	13	1 248	39 272	885	1 720	24 541	109 540	103 119	212 595	6 977
326	Plastics and rubber products												
	manufacturing	7	6	2	e	D	D	D	D	D	D	D	D
3261 32619	Plastics product manufacturing Other plastics product	7	4	2	е	D	D	D	D	D	D	D	D
326199	manufacturing	7	4	2	e e	D D	D D	D D	D D	D D	D D	D D	D D

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

7 01 1110	aning of abbreviations and symbols, see	7 11 11 1	Δ	III hments ²	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	MUSKOGEE, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	-	78	32	4 867	184 242	3 921	7 606	137 007	615 986	573 395	1 185 528	37 690
311 3114	Froit and vegetable preserving	-	12	4	496	15 506	307	665	8 393	34 733	85 798	120 573	6 205
	and specialty food manufacturing	-	1	1	е	D	D	D	D	D	D	D	D
31142	Fruit and vegetable canning, pickling, and drying	_	1	1	е	D	D	D	D	D	D	D	D
311421 322	Fruit and vegetable canning . Paper manufacturing	_	5	1 2	e g	D D	D D	D D	D D	D D	D D	D D	D D
3221	Pulp, paper, and paperboard		1	1		D	D	D	D	D	D	D	D
32212	mills Paper mills	_	1	1	g g	D	D	D	D	D	D	D	D
322121	Paper (except newsprint) mills	-	1	1	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing	_	3	2	е	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing	_	9	4	378	16 812	336	714	14 337	66 007	27 847	93 583	5 675
332	Fabricated metal product manufacturing	2	19	8	1 011	33 409	855	1 696	25 617	100 049	101 954	203 799	3 517
3324	Boiler, tank, and shipping container manufacturing	_	2	2	е	D	D	D	D	D	D	D	D
33243	Metal can, box, and other metal container (light gauge)												
332439	manufacturing Other metal container manufacturing	_	1	2	e e	D D	D D	D D	D D	D D	D D	D D	D D
333	Machinery manufacturing	_	4	2	f	D	D	D	D	D	D	D	D
3332	Industrial machinery manufacturing	_	1	1	е	D	D	D	D	D	D	D	D
33329	Other industrial machinery manufacturing		1	1	e	D	D	D	D	D	D	D	D
333298	All other industrial machinery manufacturing	_	1	1	e	D	D	D	D	D	D	D	D
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	_	1	1	e	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air- conditioning, and commercial refrigeration equipment			1		D	D	D	D	D	D	D	D
333412	manufacturing Industrial and commercial fan and blower manufacturing	_	1	1	e e	D	D	D	D	D	D	D	D
337	Furniture and related product manufacturing	_	4	4	258	4 760	205	319	2 898	19 193	8 334	27 600	D
	PONCA CITY, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	-	78	25	3 957	135 232	3 021	5 445	83 728	218 623	2 218 912	2 466 258	122 140
311 3116	Food manufacturing Animal slaughtering and	-	10	3	g	D	D	D	D	D	D	D	D
	processing	-	5	2	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	-	5	2	g	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	_	3	2	g	D	D	D	D	D	D	D	D
315	Apparel manufacturing	-	2	2	е	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing	-	2	2	е	D	D	D	D	D	D	D	D
31521	Cut and sew apparel contractors	-	1	1	е	D	D	D	D	D	D	D	D
315212	Women's, girls', and infants' cut and sew apparel contractors	_	1	1	e	D	D	D	D	D	D	D	D
324	Petroleum and coal products manufacturing	_	2	1	f	D	D	D	D	D	D	D	D
3241	Petroleum and coal products manufacturing	_	2	1	f	D	D	D	D	D	D	D	D
32411 324110	Petroleum refineries Petroleum refineries	- -	1 1	1 1	f f	D D	D D	D	D	D	D	D D	D D

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

			establis	III hments ²	All em	ployees	Pro	oduction work	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	PONCA CITY, OK MICROPOLITAN STATISTICAL AREA—Con.												
332	Fabricated metal product manufacturing	_	16	3	741	19 568	639	1 139	14 103	54 590	34 837	89 385	4 284
3323	Architectural and structural metals manufacturing	_	4	2	f	D	D	D	D	D	D	D	3 388
33232	Ornamental and architectural metal products												
332323	manufacturing Ornamental and architectural metal work manufacturing	_	2	1	f e	D D	D D	D D	D D	D D	D D	D D	D D
333	Machinery manufacturing	_	11	5	618	25 316	446	779	15 388	110 701	38 313	145 838	4 919
3331	Agriculture, construction, and mining machinery manufacturing	_	4	3	f	D	D	D	D	D	D	D	4 540
33313	Mining and oil and gas field machinery manufacturing	_	4	3	f	D	D	D	D	D	D	D	4 540
333131	Mining machinery and equipment manufacturing	_	3	3	е	D	D	D	D	D	D	D	D
	STILLWATER, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	-	63	16	2 402	76 455	1 763	3 832	55 369	234 565	710 658	981 092	20 104
323	Printing and related support activities	_	11	3	466	14 110	376	824	11 690	42 486	33 232	75 223	D
3231	Printing and related support activities	_	11	3	466	14 110	376	824	11 690	42 486	33 232	75 223	D
32311 323110	Printing	_	11	3	466	14 110	376 D	824 D	11 690 D	42 486	33 232	75 223	D
331	printing Primary metal manufacturing	_	7	1	е	D D	D	D	D	D D	D D	D D	D
3312	Steel product manufacturing from purchased steel	_	1	1	e e	D	D	D	D	D	D	D	D
33122	Rolling and drawing of												
331222	purchased steel	_	1 1	1	e e	D D	D D	D D	D D	D D	D D	D D	D D
333	Machinery manufacturing	_	7	3	f	D	D	D	D	D	D	D	1 903
3336	Engine, turbine, and power transmission equipment manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
33361	Engine, turbine, and power transmission equipment				,								
333618	manufacturing Other engine equipment manufacturing	_	1	1	f f	D D	D D	D D	D D	D D	D D	D D	D D
	WOODWARD, OK MICROPOLITAN STATISTICAL AREA												
31-33	Manufacturing	2	28	4	е	D	D	D	D	D	D	D	D

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

¹Includes establishments with payroll at any time during the year.

³Industries with 250 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 250 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: e–250 to 499 employees; f–500 to 999 employees; f–500 to 999 employees; h–2,500 to 4,999 employees; i–50,000 to 99,999 employees; f–500 to 99,999 employees; f–500 to 99,999 employees; f–500 to 99,999 employees; from the following symbols: e–250 to 4,999 employees; from the following symbols: e–250 to 4,99

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

Table 3. Industry Statistics for Counties: 2002

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

terrio, e	and geographical definitions, see note at	T	T table.	or initionin	allon on geo	grapriic areas	lollowed by	, see Append	alx B. Tor mee	I III OI ADDIEVI	alions and symbol	ois, see introduc	tory texts
			establis	ll hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	ADAIR												
31-33	Manufacturing	1	15	7	1 614	44 996	1 299	2 612	29 671	113 434	211 247	326 464	15 789
311	Food manufacturing	1	5	4	966	26 727	820	1 679	18 278	64 250	168 039	232 161	D
3116	Animal slaughtering and processing	8	2	2	f	D	D	D	D	D	D	D	D
31161 311615	Animal slaughtering and processing	8 9	2	2	f	D D	D D	D D	D D	D D	D D	D D	D D
						2		2				_	
	BRYAN												
31-33	Manufacturing	4	43	10	1 404	36 657	1 094	2 318	22 934	89 847	138 775	228 073	8 073
	CANADIAN												
31-33	Manufacturing	-	73	19	3 268	109 065	2 363	4 699	66 438	519 573	404 322	914 842	9 498
336	Transportation equipment manufacturing	-	7	4	g	D	D	D	D	D	D	D	D
3362	Motor vehicle body and trailer manufacturing	-	4	2	f	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer manufacturing	-	4	2	f	D	D	D	D	D	D	D	D
336214	Travel trailer and camper manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing	-	3	2	f	D	D	D	D	D	D	D	D
33635	Motor vehicle transmission and power train parts												
336350	manufacturing Motor vehicle transmission and power train parts	-	2	2	f	D	D	D	D	D	D	D	D
	manufacturing	-	2	2	f f	D	D	D	D	D	D	D	D
	CARTER					_	_	_	_	_	_	_	_
31-33	Manufacturing	6	42	10	h	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing	-	2	2	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing	-	1	1	g	D	D	D	D	D	D	D	D
32621 326211	Tire manufacturing Tire manufacturing (except retreading)	-	1	1	g g	D D	D D	D D	D D	D D	D D	D D	D D
	CLEVELAND												
31-33	Manufacturing	1	144	31	3 360	122 542	2 137	4 291	67 949	441 555	405 887	827 597	13 934
333	Machinery manufacturing	-	14	6	g	D	D	D	D	D	D	D	D
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air- conditioning, and commercial												
333415	refrigeration equipment manufacturing Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment	-	1	1	f	D	D	D	D	D	D	D	D
	manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
	COMANCHE												
31-33	Manufacturing	-	53	12	3 316	145 915	2 910	6 454	124 936	379 997	377 307	756 900	13 406
326	Plastics and rubber products manufacturing	_	3	2	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing	-	2	1	g	D	D	D	D	D	D	D	D
32621 326211	Tire manufacturing Tire manufacturing (except	-	2	1	g	D	D	D	D	D	D	D	D
J2U211	retreading)	-	1	1	g	D	D	D	D	D	D	D	D
	CRAIG												
31-33	Manufacturing	_	18	7	883	24 141	710	1 449	16 174	73 734	51 552	124 952	3 667

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

terris, e	and geographical definitions, see note at	I	l labic. I	01 111101111	ation on goo	grapino arcao	onowou by ,	, occ rippone	and B. Tormou	ining of approvid	ations and symbol	, 500 iiii 0000	tory toxtj
			establisl	II nments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	CREEK												
31-33	Manufacturing	1	105	28	4 050	142 179	3 400	7 022	102 353	475 643	401 344	888 147	22 705
327	Nonmetallic mineral product manufacturing	_	6	4	899	30 401	803	1 577	25 502	113 208	62 163	179 526	D
3272	Glass and glass product manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
32721	Glass and glass product manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing	1	45	12	1 750	58 094	1 507	3 166	44 878	198 018	157 405	355 220	7 271
3325	Hardware manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
33251 332510	Hardware manufacturing Hardware manufacturing	_	1 1	1	f f	D D	D D	D D	D D	D D	D D	D D	D D
	CUSTER												
31-33	Manufacturing	2	31	10	1 205	39 469	964	2 064	26 198	157 287	155 456	309 430	10 298
311	Food manufacturing	-	3	2	f	D	D	D	D	D	D	D	D
	DELAWARE												
31-33	Manufacturing	1	23	4	534	12 226	464	886	8 823	24 163	11 144	36 391	2 103
	GARFIELD												
31-33	Manufacturing	1	63	15	1 228	39 379	913	1 717	26 165	140 901	279 386	423 077	12 155
	GARVIN												
31-33	Manufacturing	_	25	7	f	D	D	D	D	D	D	D	8 908
	GRADY												
31-33	Manufacturing	1	65	15	2 957	86 033	2 541	4 910	67 555	285 434	203 777	488 440	7 069
332	Fabricated metal product manufacturing	_	14	4	1 021	34 327	917	1 872	28 977	113 900	86 398	200 940	D
3329	Other fabricated metal product manufacturing	_	4	2	f	D	D	D	D	D	D	D	D
33291 332913	Metal valve manufacturing Plumbing fixture fitting and	_	1	1	f ,	D	D	D	D	D	D	D	D
336	trim manufacturing Transportation equipment manufacturing	_	1 14	1	f g	D D	D D	D D	D D	D D	D D	D D	D D
3363	Motor vehicle parts		'-	3	9			D		D		D	D
	manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
33633 336330	Motor vehicle steering and suspension component (except spring) manufacturing Motor vehicle steering and	_	1	1	f	D	D	D	D	D	D	D	D
	suspension component (except spring) manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
	JACKSON												
31-33	Manufacturing	_	16	4	872	24 702	740	1 624	18 960	83 062	134 266	217 601	D
311	Food manufacturing	_	2	1	f	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	_	1	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and				f	D	D	D	D	D	D	D	D
311612	processing	_	1	1	f f	D	D	D	D	D	D	D	D
	JOHNSTON												
31-33	Manufacturing	1	14	2	631	17 799	525	589	12 216	59 100	25 083	91 958	638
336	Transportation equipment manufacturing	_	4	2	f	D D	D	D	D D	D 100	D	D 000	D
3362	Motor vehicle body and trailer manufacturing	_	4	2	f	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer			_		_	_	_	_	_	_	-	_
336214	manufacturing Travel trailer and camper manufacturing	_	4	2	f f	D D	D D	D D	D D	D D	D D	D D	D D

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terris, a	and geographical definitions, see note at	enu	Д	JI						ining of apprevia	alions and symbol	ns, see miroduc	lory text]
			establis	nments ²	All em	ployees	Pit	oduction work	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	KAY												
31-33	Manufacturing	-	78	25	3 957	135 232	3 021	5 445	83 728	218 623	2 218 912	2 466 258	122 140
311	Food manufacturing	-	10	3	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	_	5	2	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	_	5	2	g	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	_	3	2	g	D	D	D	D	D	D	D	D
324	Petroleum and coal products manufacturing	-	2	1	f	D	D	D	D	D	D	D	D
3241	Petroleum and coal products manufacturing	_	2	1	f	D	D	D	D	D	D	D	D
32411 324110	Petroleum refineries Petroleum refineries	- -	1 1	1	f f	D D	D D	D D	D D	D D	D D	D D	D D
332	Fabricated metal product manufacturing	_	16	3	741	19 568	639	1 139	14 103	54 590	34 837	89 385	4 284
3323	Architectural and structural metals manufacturing	_	4	2	f	D	D	D	D	D	D	D	3 388
33232	Ornamental and architectural metal products												
333	manufacturing	_	3 11	2 5	f 618	D 25 316	D 446	D 779	D 15 388	D 110 701	D 38 313	D 145 838	D 4 919
3331	Agriculture, construction, and mining machinery manufacturing		4	3		D	D	D	D	D	D	D	4 540
33313	Mining and oil and gas field machinery manufacturing	_	4	3	f	D	D	D	D	D	D	D	4 540
	LE FLORE												
31-33	Manufacturing	1	27	4	f	D	D	D	D	D	D	D	D
	LOVE												
31-33	Manufacturing	7	9	4	f	D	D	D	D	D	D	D	D
	MCCURTAIN												
31-33	Manufacturing	2	24	11	2 861	92 055	2 568	5 330	77 253	526 850	465 711	992 432	40 257 D
311 3116	Food manufacturing Animal slaughtering and	7	2	2	g	D	D	D	D	D	D	D	U
	processing	9	1	1	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	9	1	1	g	D	D	D	D	D	D	D	D
311615 321	Poultry processing Wood product manufacturing	9	1 13	1 7	g	D D	D D	D D	D D	D D	D D	D D	D D
3211	Sawmills and wood preservation .	_	10	5	f f	D	D	D	D	D	D	D	10 871
32111	Sawmills and wood					_	_	_	_	_	_		
321113	preservation	_	10 8	5 5	f	D D	D D	D D	D D	D D	D D	D D	10 871 D
	MARSHALL												
31-33	Manufacturing	-	19	5	909	30 085	800	1 250	25 282	50 410	65 199	113 847	2 830
	MAYES												
31-33	Manufacturing	-	68	27	2 871	101 932	2 217	4 320	68 152	395 234	347 581	748 138	20 718
332	Fabricated metal product manufacturing	3	23	8	574	17 399	501	1 001	13 717	31 434	18 864	50 191	469
	MUSKOGEE												
31-33	Manufacturing	-	78	32	4 867	184 242	3 921	7 606	137 007	615 986	573 395	1 185 528	37 690
322 3221	Paper manufacturing Pulp, paper, and paperboard	_	5	2	g	D	D	D	D	D	D	D	D
	mills	-	1	1	g	D	D	D	D	D	D	D	D
32212 322121	Paper mills	_	1	1	g g	D D	D D	D D	D D	D D	D D	D D	D D
332	Fabricated metal product manufacturing	2	19	8	1 011	33 409	855	1 696	25 617	100 049	101 954	203 799	3 517
333	Machinery manufacturing	_	4	2	f	D		D	D	D	D	D	D

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

terms,	and geographical definitions, see note at	ena		JI		ployees		see Append		ining of abbrevia	ations and symbo	ols, see introduc	ory text]
NAICS			establis		7 0111	pioyeee		Jacobson Won					T-4-1
code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	NOBLE												
31-33	Manufacturing	-	12	3	9	D	D	D	D	D	D	D	2 195
333	Machinery manufacturing	-	4	2	g	D	D	D	D	D	D	D	D
3331	Agriculture, construction, and mining machinery manufacturing	_	3	2	g	D	D	D	D	D	D	D	D
33312	Construction machinery manufacturing		2	2		D	D	D	D	D	D	D	D
333120	Construction machinery manufacturing	_	2	2	g g	D	D	D	D	D	D	D	D
	OKLAHOMA												
31-33	Manufacturing	-	793	213	30 775	1 199 308	21 462	43 101	765 959	4 367 792	5 539 298	9 858 280	227 710
311	Food manufacturing	1	58	15	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	1	12	6	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	1	12	6	f	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing	1	24	2	658	21 660	273	481	7 929	57 591	31 543	89 181	D
31181 311812	Bread and bakery product manufacturing	1	19 4	2 2	f	D D	D D	D D	D D	D D	D D	D D	D D
312	Beverage and tobacco product manufacturing	-	5	1	f	D	D	D	D	D	D	D	D
3121	Beverage manufacturing	_	5	1	f	D	D	D	D	D	D	D	D
31211	Soft drink and ice manufacturing	_	3	1	f	D	D	D	D	D	D	D	D
312111	Soft drink manufacturing	_	Ĭ	i	į į	Ď	Ď	Ď	Ď	Ď	Ď	Ď	Ď
323	Printing and related support activities	2	124	17	1 212	37 297	903	1 672	23 700	76 192	46 324	122 152	D
3231	Printing and related support activities	2	124	17	1 212	37 297	903	1 672	23 700	76 192	46 324	122 152	D
32311 323110	Printing Commercial lithographic printing	2	110 65	15 11	1 113 f	35 221 D	817 D	1 507 D	22 372 D	72 592 D	45 574 D	117 801 D	D D
326	Plastics and rubber products manufacturing	_	32	13	3 058	128 849	2 526	5 142	101 664	410 348	271 791	681 441	D
3261	Plastics product manufacturing	_	27	11	g	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing	_	14	7	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing	_	10	4	f	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing	_	5	2	g	D	D	D	D	D	D	D	D
32621 326211	Tire manufacturing Tire manufacturing (except	-	4	2	g	D	D	D	D	D	D	D	D
020211	retreading)	-	1	1	g	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing	3	38	16	978	30 299	764	1 534	19 039	88 607	62 942	150 690	7 703
3273	Cement and concrete product manufacturing	2	24	11	676	21 171	539	1 064	13 212	64 656	45 245	109 451	D
332	Fabricated metal product manufacturing	_	135	40	4 323	156 796	3 138	6 265	97 398	466 088	475 215	921 172	D
3323	Architectural and structural metals manufacturing	_	32	15	g	D	D	D	D	D	D	D	D
33231	Plate work and fabricated structural product		-11	-	_			5		5		5	D.
33232	manufacturing Ornamental and architectural metal products	_	11	7	f f	D	D	D	D	D	D	D	D
332321	manufacturing Metal window and door manufacturing	- -	21	8	951 758	30 169 23 735	740 603	1 388 1 107	20 864 16 761	90 763 75 222	58 456 46 302	150 744 122 768	1 560 D
3329	Other fabricated metal product manufacturing	1	23	9	1 571	58 260	1 016	2 173	29 987	186 110	139 740	306 025	D
33291 332911	Metal valve manufacturing Industrial valve	-	8	5	f	D	D	D	D	D	D	D	D
33299	manufacturing All other fabricated metal	-	7	5	f	D	D	D	D	D	D	D	D
332999	product manufacturing All other miscellaneous fabricated metal product	3	15	4	f	D	D	D	D	D	D	D	D
	manufacturing	2	l 8	3	l f	D	l Di	D	D	D	Dl	D	D

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	and geographical definitions, see note at	l	l A	JI		ployees		oduction worl		ining of abbrevio	and dymb	sio, occ mirodaol	iory text]
NAICS			establish	hments ²	7 6111	pioyeee							
code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA—Con.												
333	Machinery manufacturing	2	74	18	3 286	113 522	2 202	4 344	62 951	383 598	367 246	740 254	D
3331	Agriculture, construction, and mining machinery manufacturing	_	23	6	g	D	D	D	D	D	D	D	D
33312	Construction machinery manufacturing	_	4	1	f	D	D	D	D	D	D	D	D
333120	Construction machinery manufacturing	_	4	1	f	D	D	D	D	D	D	D	D
33313 333132	Mining and oil and gas field machinery manufacturing Oil and gas field machinery	-	19	5	f	D	D	D	D	D	D	D	D
333132	and equipment manufacturing	_	19	5	f	D	D	D	D	D	D	D	D
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	3	9	6	f	D	D	D	D	D	D	D	D
33341 333415	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	3	9	6	f	D	D	D	D	D	D	D	D
	heating equipment and commercial and industrial refrigeration equipment manufacturing	3	9	6	f	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing	4	23	4	g	D	D	D	D	D	D	D	D
33391	Pump and compressor manufacturing	4	12	4	f	D	D	D	D	D	D	D	D
333911	Pump and pumping equipment manufacturing	4	7	3	f	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing	_	28	9	h	D	D	D	D	D	D	D	D
3341	Computer and peripheral equipment manufacturing	_	5	2	g	D	D	D	D	D	D	D	D
33411	Computer and peripheral equipment manufacturing	_	5	2	g	D	D	D	D	D	D	D	D
334112	Computer storage device manufacturing	-	2	1	g	D	D	D	D	D	D	D	D
3342	Communications equipment manufacturing	_	5	3	g	D	D	D	D	D	D	D	D
33421 334210	Telephone apparatus manufacturing Telephone apparatus	_	1	1	g	D	D	D	D	D	D	D	D
336	manufacturing Transportation equipment	-	1	1	g	D	D	D	D	D	D	D	D
3361	manufacturing Motor vehicle manufacturing	-	48	21 1	i h	D D	D D	D D	D D	D D	D D	D D	D D
33611	Automobile and light duty motor	_											
336112	vehicle manufacturing Light truck and utility vehicle manufacturing	_	3 2	1	h h	D D	D D	D D	D D	D D	D D	D D	D D
3363	Motor vehicle parts manufacturing	_	24	10	h	D	D	D	D	D	D	D	D
33632	Motor vehicle electrical and electronic equipment												
336322	manufacturing Other motor vehicle electrical and electronic equipment	_	4	3	g	D	D	D	D	D	D	D	D
3364	manufacturing Aerospace product and parts	_	4	3	g	D	D D	D	D	D	D	D D	D
33641	Manufacturing	_	9	6	, T	D D	D	D D	D D	D D	D D	D	D D
337	manufacturing Furniture and related product	3	39	13	1 010	26 509	803	1 463	18 139	73 814	47 479	120 749	D
3372	manufacturing Office furniture (including fixtures) manufacturing	2	r13	6	f	26 509 D	D 003	1 463 D	16 139 D	73 614 D	47 479 D	120 749 D	D
33721	Office furniture (including fixtures) manufacturing	2	r13	6	'	D	D	D	D	D	D	D	D
339	Miscellaneous manufacturing	1	83	16	1 342	41 504	825	1 473	19 026	126 402	132 553	256 565	D
3391	Medical equipment and supplies manufacturing	_	35	5	f	D	D	D	D	D	D	D	D
33911	Medical equipment and supplies manufacturing	_	35	5	f	D	D	D	D	D	D	D	D
3399	Other miscellaneous manufacturing	1	48	11	f	D	D	D	D	D	D	D	D

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terris,	and geographical definitions, see note at	enu	Α .	III hments ²		ployees		duction work		illing of abbrevia	alions and symbol	ois, see introduc	lory text]
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
-	OKMULGEE												
31-33	Manufacturing	1	40	10	1 552	50 430	1 369	1 933	41 611	225 402	86 745	306 240	17 545
311	Food manufacturing	_	2	1	f	D	D	D	D	D	D	D	D
3119	Other food manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
31199	All other food manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
311999	All other miscellaneous food manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
	OTTAWA												
31-33	Manufacturing	3	55	13	1 248	39 272	885	1 720	24 541	109 540	103 119	212 595	6 977
	PAYNE												
31-33	Manufacturing	_	63	16	2 402	76 455	1 763	3 832	55 369	234 565	710 658	981 092	20 104
333	Machinery manufacturing	-	7	3	f	D	D	D	D	D	D	D	1 903
3336	Engine, turbine, and power transmission equipment manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
33361	Engine, turbine, and power transmission equipment												
333618	manufacturing Other engine equipment	-	1	1	f	D	D	D	D	D	D	D	D
0000.0	manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
	PITTSBURG												
31-33	Manufacturing	-	26	6	741	21 021	602	1 213	15 534	37 159	158 869	196 313	2 672
	PONTOTOC												
31-33	Manufacturing	1	55	13	1 455	38 153	967	1 935	18 378	178 117	106 559	283 131	5 186
326	Plastics and rubber products manufacturing	_	3	2	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
32619	Other plastics product					D	Б	_			_	D.	6
326199	manufacturing	_	2	2	ī	D	D	D	D	D	D	D	D
	manufacturing	_	2	2	ī	D	D	D	D	D	D	D	D
31-33	POTTAWATOMIE	_	63	20	3 409	116 136	2 570	5 041	76 883	286 873	301 526	588 683	54 899
326	Manufacturing Plastics and rubber products	_	03	20	3 409	110 130	2 370	3 041	70 003	200 073	301 320	300 003	34 099
	manufacturing	-	10	4	1 074	40 248	709	1 386	22 583	108 006	99 512	208 460	D
3261	Plastics product manufacturing	_	8	4	g	D	D	D	D	D	D	D	D
334 3344	Computer and electronic product manufacturing	-	3	2	f	D	D	D	D	D	D	D	D
5544	electronic component manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
33441	Semiconductor and other												
004440	electronic component manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
334419	Other electronic component manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
	ROGERS												
31-33	Manufacturing	1	136	48	4 950	193 242	3 151	6 332	99 523	497 670	735 601	1 248 518	25 966
332	Fabricated metal product manufacturing	2	51	17	2 071	73 034	1 377	2 576	42 388	112 599	180 892	298 135	8 355
3324	Boiler, tank, and shipping container manufacturing	1	6	6	g g	D	D	D	72 000 D	D	D	D	2 073
33241	Power boiler and heat exchanger manufacturing	4	3	3	f	D	D	D	D	D	D	D	D
332410	Power boiler and heat exchanger manufacturing	4	3	3	f	D	D	D	D	D	D	D	D
33242	Metal tank (heavy gauge) manufacturing	7	3	3	691	28 898	329	507	12 138	22 134	112 587	136 466	D
332420	Metal tank (heavy gauge)	_	3	3									D
333	manufacturing Machinery manufacturing	-	9	5	691 754	28 898 30 778	329 377	507 881	12 138 10 437	22 134 207 025	112 587 103 389	136 466 311 805	1 356
3339	Other general purpose machinery												
33391	manufacturing	-	4	3	f	D	D	D	D	D	D	D	D
	Pump and compressor manufacturing	-	3	2	f	D	D	D	D	D	D	D	D
333911	Pump and pumping equipment manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing	2	10	7	893	41 270	550	1 166	19 300	39 244	180 823	217 812	3 977
3363	Motor vehicle parts												
	manufacturing	-	2	2	f	D	DI	D	l D	l DI	DI	D	D

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terris, c	and geographical definitions, see note at	Cita	A establisl	II I		ployees		oduction work		Timing of abbrevia	allons and symbol	ns, see introduct	ory text]
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	SEMINOLE												
31-33	Manufacturing	-	23	6	1 465	29 918	1 186	2 034	19 278	462 096	46 744	482 646	3 394
315	Apparel manufacturing	-	1	1	g	D	D	D	D	D	D	D	D
3152	Cut and sew apparel manufacturing	_	1	1	g	D	D	D	D	D	D	D	D
31522	Men's and boys' cut and sew apparel manufacturing	_	1	1	g	D	D	D	D	D	D	D	D
315224	Men's and boys' cut and sew trouser, slack, and jean manufacturing	_	1	1	g	D	D	D	D	D	D	D	D
	STEPHENS												
31-33	Manufacturing	2	53	11	1 814	66 401	1 254	2 283	34 029	121 065	210 299	338 334	7 939
333	Machinery manufacturing	-	9	3	f	D	D	D	D	D	D	D	D
3331	Agriculture, construction, and mining machinery manufacturing	_	5	2	f	D	D	D	D	D	D	D	D
33313	Mining and oil and gas field machinery manufacturing	_	4	2	f	D	D	D	D	D	D	D	D
333132	Oil and gas field machinery and equipment manufacturing	_	4	2	f	D	D	D	D	D	D	D	D
	TEXAS												
31-33	Manufacturing	_	9	3	g	D	D	D	D	D	D	D	D
311	Food manufacturing	_	5	3	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	_	1	1	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	_	1	1	g	D	D	D	D	D	D	D	D
311611	Animal (except poultry) slaughtering	_	1	1	g	D	D	D	D	D	D	D	D
	TULSA												
31-33	Manufacturing	1	1 103	r341	r41 309	r1 530 587	r27 231	r53 164	r891 220	r4 147 984	r5 583 234	r9 713 750	r236 574
311	Food manufacturing	1	31	11	2 547	82 573	1 343	2 747	38 827	224 181	188 589	410 553	D
3118	Bakeries and tortilla manufacturing	1	19	6	g	D	D	D	D	D	D	D	D
31181 311812	Bread and bakery product manufacturing	1	15 5	6	g	D D	D D	D	D	D D	D D	D D	D D
311813	Commercial bakeries Frozen cakes, pies, and other pastries	3	5	3	1	U		D	D	U	الا	U	D
	manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
322	Paper manufacturing	-	14	9	g	D	D	D	D	D	D	D	D
3222	Converted paper product manufacturing	4	13	8	f	D	D	D	D	D	D	D	D
323	Printing and related support activities	1	123	17	1 429	46 856	1 015	1 837	25 671	102 002	54 768	148 641	8 313
3231	Printing and related support activities	1	123	17	1 429	46 856	1 015	1 837	25 671	102 002	54 768	148 641	8 313
32311 323110	Printing	1	111	16	g	D	D	D	D	D	D	D	8 223
324	Commercial lithographic printing Petroleum and coal products	-	35	9	746	23 004	587	1 047	14 285	56 154	29 733	78 097	6 952
	manufacturing	-	10	4	f	D	D	D	D	D	D	D	D
3241	Petroleum and coal products manufacturing	-	10	4	f	D D	D D	D D	D D	D D	D D	D D	D D
324110	Petroleum refineries Petroleum refineries	_	3	2	f	D	D D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing	2	43	15	1 349	39 981	1 039	1 977	24 417	107 246	120 613	227 716	D
3261	Plastics product manufacturing	1	33	12	f	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product manufacturing	_	39	18	2 248	98 285	1 812	3 717	74 517	267 559	194 547	458 093	12 720
3272	Glass and glass product manufacturing	_	7	4	g	D	D	D	D	D	D	D	D
32721 327211	Glass and glass product manufacturing Flat glass manufacturing	_ _	7 1	4 1	g f	D D	D D	D D	D D	D D	D D	D D	D D
3273	Cement and concrete product manufacturing	_	21	10	f	D	D	D	D	D	D	D	D

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NAICS code	Geographic area and industry			nments ²		ployees	FIC	duction work	1010				
	,	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA-Con.												
331	Primary metal manufacturing	-	28	13	1 652	67 045	1 268	2 621	44 403	134 728	195 231	332 952	6 131
3312	Steel product manufacturing from purchased steel	-	6	4	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing	3	^r 355	^r 108	^r 8 223	'315 527	^r 5 854	^r 11 861	^r 189 969	'701 527	⁷ 499 343	^r 1 195 847	r34 996
3323	Architectural and structural metals manufacturing	2	⁷ 75	r21	r1 852	r66 778	r1 195	r2 428	r35 183	r162 976	r130 507	r292 342	r7 940
33231 332312 332313 33232	Plate work and fabricated structural product manufacturing Fabricated structural metal manufacturing Plate work manufacturing Ornamental and architectural	1 2 -	39 21 11	12 5 5	r1 211 f f	^r 45 769 D D	'740 D D	^r 1 584 D D	'23 191 D D	′115 371 D D	'98 470 D D	r212 489 D D	'6 589 D D
	metal products manufacturing	3	^r 36	rg	^r 641	r21 009	r455	r844	r11 992	r47 605	r32 037	79 853	r1 351
3324	Boiler, tank, and shipping container manufacturing	2	39	25	1 818	76 664	1 259	2 665	44 685	161 537	137 276	297 036	9 998
33241	Power boiler and heat exchanger manufacturing	2	25	20	g	D	D	D	D	D	D	D	9 518
332410	Power boiler and heat exchanger manufacturing	2	25	20	g	D	D	D	D	D	D	D	9 518
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing	4	122	23	g	D	D	D	D	D	D	D	D
33271 332710	Machine shops	2	107 107	19 19	1 218 1 218	44 666 44 666	938 938	1 788 1 788	31 096 31 096	83 274 83 274	35 260 35 260	118 222 118 222	5 287 5 287
3328	Coating, engraving, heat treating, and allied activities	5	36	12	722	25 371	578	1 133	17 445	54 476	29 140	83 531	D 20.
33281	Coating, engraving, heat treating, and allied activities	5	36	12	722	25 371	578	1 133	17 445	54 476	29 140	83 531	D
3329	Other fabricated metal product manufacturing	4	57	21	1 614	62 356	1 143	2 233	34 263	139 729	107 042	246 960	D
33299	All other fabricated metal product manufacturing	4	43	17	1 347	50 855	979	1 876	29 066	116 285	94 289	210 103	D
332996	Fabricated pipe and pipe fitting manufacturing	5	20	11	899	33 092	686	1 393	19 105	79 925	56 110	134 515	D
333	Machinery manufacturing	1	142	63	9 264	343 070	4 681	8 902	145 907	810 264	787 766	1 622 777	46 934
3331	Agriculture, construction, and mining machinery manufacturing	4	27	14	1 586	65 733	974	1 854	32 452	210 718	210 559	434 088	D
33312	Construction machinery manufacturing	7	7	5	f	D	D	D	D	D	D	D	4 541
333120 33313	Construction machinery manufacturing	7	7	5	f	D	D	D	D	D	D	D	4 541
333132	Mining and oil and gas field machinery manufacturing Oil and gas field machinery and equipment	-	20	9	g	D	D	D	D	D	D	D	D
0000	manufacturing	-	20	9	g	D	D	D	D	D	D	D	D
3332	Industrial machinery manufacturing	1	23	11	h	D	D	D	D	D	D	D	D
33329 333298	Other industrial machinery manufacturing	1	21	9	h	D	D	D	D	D	D	D	D
3333	manufacturing Commercial and service industry machinery manufacturing	1	14	9	h 1 065	D 48 337	D 523	D 1 106	D 14 152	D 122 494	D 122 022	D 244 773	D 2 767
33331	Commercial and service												
333319	industry machinery manufacturing Other commercial and service industry machinery	-	11	4	1 065	48 337	523	1 106	14 152	122 494	122 022	244 773	2 767
3334	manufacturing Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	1	13	3	f f	D D	D D	D D	D D	D D	D D	D D	D D
33341	Ventilation, heating, air- conditioning, and commercial												
333415	refrigeration equipment manufacturing	1	13	6	f	D D	D D	D D	D D	D	D D	D D	D D

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

			A	.II		ployees		duction work		ning of abbrevia	alono una symbo	no, occ introducti	ory text]
NAICS			establis		7 1.11 0111	picyoco		Tadasion Won					Total
code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA—Con.												
333 3339	Machinery manufacturing—Con. Other general purpose machinery manufacturing	_	41	20	g	D	D	D	D	D	D	D	10 302
33391	Pump and compressor manufacturing	_	11	9	f	D	D	D	D	D	D	D	D
33392	Material handling equipment manufacturing	2	8	4	f	D	D	D	D	D	D	D	D
333923	Overhead traveling crane, hoist, and monorail system manufacturing	2	6	4	f	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing	1	44	14	2 154	59 059	1 244	2 120	26 035	118 179	112 195	231 213	D
3342	Communications equipment manufacturing	_	5	1	f	D	D	D	D	D	D	D	D
33422	Radio and television broadcasting and wireless												
334220	communications equipment manufacturing. Radio and television broadcasting and wireless communications equipment manufacturing.	_	5	1	f	D	D D	D D	D D	D	D D	D D	D D
3344	Semiconductor and other	_	5	'	'	Ь		ا	D			Б	В
	electronic component manufacturing	-	14	6	f	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component manufacturing	_	14	6	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, electromedical, and control instruments manufacturing	2	21	7	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, electromedical, and control instruments manufacturing	2	21	7	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, and component manufacturing	_	r28	13	g	D	D	D	D	D	D	D	D
3352	Household appliance manufacturing	_	r3	1	g	D	D	D	D	D	D	D	D
33522	Major appliance manufacturing.	_	r3	1	g	D	D	D	D	D	D	D	D
335221	Household cooking appliance manufacturing	-	r3	1	g	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing	-	16	9	f	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing	_	16	9	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing	_	38	18	4 997	217 161	3 599	7 403	165 732	561 620	782 119	1 329 965	27 384
3361	Motor vehicle manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
33612	Heavy duty truck manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
336120	Heavy duty truck manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
3364	Aerospace product and parts manufacturing	_	20	12	h	D	D	D	D	D	D	D	24 261
33641	Aerospace product and parts manufacturing	_	20	12	h	D	D	D	D	D	D	D	24 261
336411 336413	Aircraft manufacturing Other aircraft parts and auxiliary equipment	-	3	2	f	D	D	D	D	D	D	D	D
	manufacturing	-	11	6	h	D	D	D	D	D	D	D	D
339 3399	Miscellaneous manufacturing	1	94	18	1 652	52 083	1 172	2 204	29 356	122 901	106 434	233 687	D
	Other miscellaneous manufacturing	1	66	14	g	D	D	D	D	D	D	D	D
33992 339920	Sporting and athletic goods manufacturing	-	13	5	f	D	D	D	D	D	D	D	D
	manufacturing	-	13	5	f f	D	D	D	D	D	D	D	D
	WAGONER												
31-33	Manufacturing	2	81	17	1 661	52 896	1 278	2 565	34 470	148 711	111 443	262 262	6 512
332	Fabricated metal product manufacturing	1	26	4	581	15 392	500	1 029	12 425	41 591	34 736	77 611	3 344

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

			establis	ll hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E ¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	WASHINGTON												
31-33	Manufacturing	5	48	8	1 557	54 819	996	2 011	22 345	50 022	99 705	162 194	3 485
333	Machinery manufacturing	8	8	3	814	32 542	438	722	7 583	25 647	57 725	84 948	2 193
3339	Other general purpose machinery manufacturing	9	4	2	f	D	D	D	D	D	D	D	D
33391 333911	Pump and compressor manufacturing	9	2	1	f	D	D	D	D	D	D	D	D
333911	Pump and pumping equipment manufacturing	9	1	1	f	D	D	D	D	D	D	D	D

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

²Includes establishments with spyroll at any time during the year.
³Industries with 500 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 500 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: f–500 to 999 employees; g–1,000 to 2,499 employees; h–2,500 to 4,999 employees; i–5,000 to 99,999 employees; j–10,000 to 24,999 employees; k–25,000 to 49,999 employees; l–50,000 to 99,999 employees; m–100,000 employees or more.

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

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

Table 4. Industry Statistics for Places: 2002

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

	and geographical definitions, see note at	Cita	A P							aming of abbrevio	ations and symbol	510, 500 1111 0000	lory toxt
			establis	nments ²	All em	ployees	Pro	duction work	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	ADA												
31-33	Manufacturing	1	45	9	g	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing	_	3	2	f	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
32619	Other plastics product manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
326199	All other plastics product manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
	ALTUS												
31-33	Manufacturing	-	12	3	f	D	D	D	D	D	D	D	D
311	Food manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	_	1	1	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	_	1	1	f	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	_	1	1	f	D	D	D	D	D	D	D	D
	ARDMORE												
31-33	Manufacturing	6	27	6	h	D	D	D	D	D	D	D	19 646
326	Plastics and rubber products manufacturing	_	2	2	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing	-	1	1	g	D	D	D	D	D	D	D	D
32621 326211	Tire manufacturing	_	1	1	g g	D D	D D	D D	D D	D D	D D	D D	D D
	BARTLESVILLE												
31-33	Manufacturing	7	30	3	1 030	40 232	579	1 119	11 453	28 111	77 475	117 067	1 928
333	Machinery manufacturing	9	3	1	f	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing	9	2	1	f	D	D	D	D	D	D	D	D
33391	Pump and compressor manufacturing	9	2	1		D	D	D	D	D	D	D	D
333911	Pump and pumping equipment manufacturing	9	1	1	f f	D	D	D	D	D	D	D	D
	BETHANY												
31-33	Manufacturing	_	13	3	f	D	D	D	D	D	D	D	D
	BRISTOW												
31-33	Manufacturing	-	5	2	g	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing	_	2	1	f	D	D	D	D	D	D	D	D
3325	Hardware manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
33251 332510	Hardware manufacturing Hardware manufacturing	_	1 1	1 1	f f	D D	D D	D D	D D	D D	D D	D D	D D
	BROKEN ARROW												
31-33	Manufacturing	1	132	39	4 360	165 302	2 757	5 346	82 818	433 517	298 297	735 230	16 662
326	Plastics and rubber products manufacturing	1	7	5	528	17 216	423	793	10 560	45 254	35 534	80 270	5 233
332	Fabricated metal product manufacturing	3	41	10	533	21 002	378	771	12 895	47 086	29 029	74 683	D
333	Machinery manufacturing	-	19	8	1 841	76 929	924	1 763	30 524	196 836	138 382	340 419	4 154
3333	Commercial and service industry machinery manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
33331	Commercial and service industry machinery manufacturing		1	1	f	D	D	D	D	D	D	D	D
333319	Other commercial and service industry machinery manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing		5	3		23 389	293	518	9 404	51 069	47 692	100 341	1 537

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			establis	ll hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	CATOOSA												
31-33	Manufacturing	3	27	13	g	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing	3	13	6	764	27 717	589	1 135	18 975	52 950	49 973	103 509	D
3324	Boiler, tank, and shipping container manufacturing	3	4	4	668	24 094	515	989	16 624	47 440	46 341	94 236	D
33241	Power boiler and heat exchanger manufacturing	4	3	3	f	D	D	D	D	D	D	D	D
332410	Power boiler and heat exchanger manufacturing	4	3	3	f	D	D	D	D	D	D	D	D
	CHICKASHA												
31-33	Manufacturing	-	42	13	1 971	53 258	1 673	3 159	40 440	167 508	106 759	268 143	D
336	Transportation equipment manufacturing	_	8	3	g	D	D	D	D	D	D	D	D
3363	Motor vehicle parts manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
33633	Motor vehicle steering and suspension component (except spring) manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
336330	Motor vehicle steering and suspension component (except spring) manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
	CLAREMORE												
31-33	Manufacturing	1	48	18	1 911	73 699	1 228	2 623	36 982	269 121	240 220	513 747	D
333	Machinery manufacturing	_	4	3	f	D	D	D 020	D	D	D D	D. D.	D
3339	Other general purpose machinery manufacturing	_	3	3	· f	D	D	D	D	D	D	D	D
33391	Pump and compressor												
333911	manufacturing Pump and pumping equipment manufacturing	_	2	2	f f	D D	D D	D D	D D	D D	D D	D D	D D
	CLINTON												
31-33	Manufacturing	_	9	4	694	19 579	603	1 339	14 728	71 446	100 093	171 012	1 652
311	Food manufacturing	_	3	2	f	D	D	D	D	D	D	D	D
	DEL CITY												
31-33	Manufacturing	_	10	5	773	20 551	490	1 002	11 141	41 584	28 568	68 927	1 180
	DUNCAN												
31-33		_	30	7		D	D	D	D	D	D	D	D
333	Manufacturing	_	30	1	g f	D	ם	D	D	D	D	D	D
3331	Agriculture, construction, and			'	'	D		D				D	В
	mining machinery manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
33313	Mining and oil and gas field machinery manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
333132	Oil and gas field machinery and equipment manufacturing	_	1	1	· f	D	D	D	D	D	D	D	D
	DURANT												
31-33	Manufacturing	_	26	7	f	D	D	D	D	D	D	D	D
	EL RENO												
31-33	Manufacturing	_	19	5	912	25 573	740	1 129	17 692	70 892	89 860	165 056	1 305
336	Transportation equipment manufacturing	_	3	2	f	D	D	D	D	D	D	D	D
3362	Motor vehicle body and trailer manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer				_	ľ		,	_			r	ľ
336214	manufacturing	_	1	1	f f	D D	D D	D D	D D	D D	D D	D D	D D
	ENID												
31-33	Manufacturing	2	50	13	951	27 243	709	1 304	17 961	76 297	128 622	201 599	D

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			establis	hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	GUYMON												
31-33	Manufacturing	_	7	2	g	D	D	D	D	D	D	D	D
311	Food manufacturing	_	4	2	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	_	1	1	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	_	1	1	g	D	D	D	D	D	D	D	D
311611	Animal (except poultry) slaughtering	-	1	1	g	D	D	D	D	D	D	D	D
	JENKS												
31-33	Manufacturing	-	12	3	f	D	D	D	D	D	D	D	D
	LAWTON												
31-33	Manufacturing	-	45	10	h	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing	_	2	1	g	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing	_	2	1	g	D	D	D	D	D	D	D	D
32621 326211	Tire manufacturing Tire manufacturing (except	-	2	1	g	D	D	D	D	D	D	D	D
	retreading)	-	1	1	g	D	D	D	D	D	D	D	D
	MCALESTER												
31-33	Manufacturing	-	15	4	525	12 536	432	875	9 209	790	128 713	130 236	D
	MADILL												
31-33	Manufacturing	-	9	3	653	22 467	556	1 042	18 383	39 428	52 123	92 356	D
	MIAMI												
31-33	Manufacturing	4	28	9	925	28 834	650	1 270	17 921	78 081	73 725	150 706	D
	MIDWEST CITY												
31-33	Manufacturing	-	20	3	651	23 375	362	704	11 184	49 485	46 207	95 358	1 181
	MUSKOGEE												
31-33	Manufacturing	-	54	24	4 167	161 750	3 419	6 545	122 959	554 570	487 046	1 038 067	31 109
322	Paper manufacturing	-	5	2	g	D	D	D	D	D	D	D	D
3221	Pulp, paper, and paperboard mills	_	1	1	g	D	D	D	D	D	D	D	D
32212 322121	Paper mills	-	1	1	g	D	D	D	D	D	D	D	D
000	mills	_	1	1	g	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing	2	10	6	898	29 828	764	1 551	23 463	92 399	91 663	185 949	3 289
333	Machinery manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
	NORMAN												
31-33	Manufacturing	1	81	17	2 665	101 707	1 600	3 304	54 465	386 465	356 431	726 988	10 399
333	Machinery manufacturing	-	7	4	g	D	D	D	D	D	D	D	D
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air- conditioning, and commercial refrigeration equipment							-	_				,
333415	manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
	manufacturing	-	1	1	l f	D	l D	D	l D	D	D	D	D

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

	T	T	T table.	01 111101111	ulion on goo	grapino arcao	lonowed by	осс пррепе	IIX D. TOTTIOC	I abbievie	ations and symb	510, 500 1111 0000	tory toxtj
			A establis	II nments ²	All em	ployees	Pro	oduction worl	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA CITY												
31-33	Manufacturing	-	715	200	29 851	1 176 138	20 797	42 282	752 600	4 549 381	5 572 471	10 065 170	219 865
311	Food manufacturing	-	49	13	2 035	74 550	1 287	2 721	40 513	360 109	670 064	1 025 725	10 468
3116	Animal slaughtering and processing	_	10	5	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	_	10	5	f	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	_	8	4	f	D	D	D	D	D	D	D	D
3118	Bakeries and tortilla manufacturing	1	20	2	f	D	D	D	D	D	D	D	D
31181 311812	Bread and bakery product manufacturing	1	16 3	2 2	629 f	21 092 D	249 D	444 D	7 505 D	56 249 D	30 826 D	87 122 D	D D
312	Beverage and tobacco product manufacturing	_	4	1	f	D	D	D	D	D	D	D	D
3121	Beverage manufacturing	-	4	1	f	D	D	D	D	D	D	D	D
31211 312111	Soft drink and ice manufacturing	_ _	3 1	1 1	f f	D D	D D	D D	D D	D D	D D	D D	D D
323	Printing and related support activities	2	106	15	970	29 976	726	1 335	19 494	63 982	36 499	100 359	3 810
3231	Printing and related support activities	2	106	15	970	29 976	726	1 335	19 494	63 982	36 499	100 359	3 810
32311 323110	Printing Commercial lithographic	2	93	13	f	D	D	D	D	D	D	D	D
	printing	1	59	10	647	21 255	485	888	14 285	45 730	28 673	74 100	3 294
325	Chemical manufacturing	-	22	8	f	D	D	D	D	D	D	D	D
326	Plastics and rubber products manufacturing	_	28	11	2 922	123 906	2 426	4 912	98 715	403 189	267 370	669 852	40 053
3261	Plastics product manufacturing	-	23	9	g	D	D	D	D	D	D	D	D
32619 326199	Other plastics product manufacturing All other plastics product	-	11	6	730	24 038	528	1 150	16 769	88 975	71 737	162 903	D
320199	manufacturing	-	9	4	f	D	D	D	D	D	D	D	D
3262	Rubber product manufacturing	-	5	2	g	D	D	D D	D	D	D	D	D
32621 326211	Tire manufacturing Tire manufacturing (except retreading)	_	1	2 1	g g	D D	D D	D	D D	D D	D D	D D	D D
327	Nonmetallic mineral product manufacturing	3	32	15	871	26 322	662	1 318	15 626	83 454	46 350	128 973	4 161
3273	Cement and concrete product	2											
	manufacturing	2	21	10	584	17 697	450	873	10 171	60 633	29 734	89 945	3 077
332	Fabricated metal product manufacturing	_	135	41	4 057	151 432	2 967	5 869	94 767	456 813	470 267	907 442	14 877
3323	Architectural and structural metals manufacturing	_	33	17	1 761	59 433	1 301	2 528	37 762	165 400	124 957	292 194	2 575
33231	Plate work and fabricated structural product			0	,								
33232	manufacturing Ornamental and architectural metal products	_	14	9	f	D	D	D	D	D	D	D	D
332321	manufacturing Metal window and door manufacturing	-	19	8	758	D 23 735	D 603	D 1 107	D 16 761	75 222	D 46 302	D 122 768	D D
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing	1	50	7	f	D	D	D	D	D	D	D	D
3329	Other fabricated metal product manufacturing	1	19	8	1 147	47 816	783	1 689	25 081	169 249	124 780	274 644	7 140
33291 332911	Metal valve manufacturing Industrial valve manufacturing	-	8 7	6	f f	D D	D D	D D	D D	D D	D D	D D	D D
			. ,										. 5

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terms,	and geographical definitions, see note at	t ena		MI.		ployees		duction worl		ining of abbrevia	tions and symbo	ois, see introduct	ory text]
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA CITY—Con.	Ė	Total	more	Number	(ψ1,000)	ramber	(1,000)	(ψ1,000)	(ψ1,000)	(ψ1,000)	(ψ1,000)	(ψ1,000)
333	Machinery manufacturing	2	76	19	3 280	114 023	2 211	4 371	63 491	384 518	367 826	742 300	23 384
3331	Agriculture, construction, and mining machinery manufacturing	_	25	8	g	D	D	D	D	D	D	D	D
33312	Construction machinery manufacturing	_	4	1	f	D	D	D	D	D	D	D	D
333120	Construction machinery manufacturing	_	4	1	f	D	D	D	D	D	D	D	D
33313	Mining and oil and gas field machinery manufacturing	1	21	7	661	26 754	478	951	15 981	60 031	81 396	150 341	11 414
333132	Oil and gas field machinery and equipment manufacturing	1	21	7	661	26 754	478	951	15 981	60 031	81 396	150 341	11 414
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	3	8	5	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing Air-conditioning and warm air	3	8	5	f	D	D	D	D	D	D	D	D
	heating equipment and commercial and industrial refrigeration equipment manufacturing	3	8	5	f	D	D	D	D	D	D	D	D
3339	Other general purpose machinery manufacturing	4	24	4	1 038	36 821	610	1 266	18 439	165 308	142 338	306 198	5 656
33391	Pump and compressor												
333911	manufacturing	4	11 6	3	f f	D D	D D	D D	D D	D D	D D	D D	D D
334	Computer and electronic product manufacturing	-	20	6	h	D	D	D	D	D	D	D	D
3341	Computer and peripheral equipment manufacturing	-	4	1	g	D	D	D	D	D	D	D	D
33411 334112	Computer and peripheral equipment manufacturing Computer storage device	-	4	1	g	D	D	D	D	D	D	D	D
3342	manufacturing Communications equipment	_	3	1 2	g	D D	D D	D D	D D	D D	D D	D D	D D
33421	manufacturing Telephone apparatus	-	3		g	D		Б				D	D
334210	manufacturing Telephone apparatus manufacturing	-	1	1	g g	D D	D D	D D	D D	D D	D D	D D	D D
336	Transportation equipment manufacturing	_	39	18	i	D	D	D	D	D	D	D	D
3361	Motor vehicle manufacturing	-	3	1	h	D	D	D	D	D	D	D	D
33611 336112	Automobile and light duty motor vehicle manufacturing Light truck and utility vehicle	-	3	1	h	D	D	D	D	D	D	D	D
3362	manufacturing Motor vehicle body and trailer	-	2	1	h	D	D	D	D	D	D	D	D
33621	manufacturing	1	6	4	f f	D D	D D	D D	D D	D D	D D	D D	1 498 1 498
3363	Motor vehicle parts manufacturing	_	23	11	, h	D	D	D	D	D	D	D	D 490
33632	Motor vehicle electrical and												
336322	electronic equipment manufacturing Other motor vehicle electrical and electronic equipment	-	3	3	g	D	D	D	D	D	D	D	D
33635	manufacturing Motor vehicle transmission and power train parts	-	3	3	g	D	D	D	D	D	D	D	D
336350	manufacturing	-	5	3	g	D	D	D	D	D	D	D	D
337	manufacturing Furniture and related product manufacturing	3	5 35	13	986	D 25 949	D 785	D 1 436	D 17 786	72 715	D 46 694	D 118 865	D D
3372	Office furniture (including fixtures) manufacturing	2	r12	6	900 f	25 949 D	765 D	D 436	17 780 D	72 713 D	40 094 D	D	D
33721	Office furniture (including fixtures) manufacturing			6	f		D	D	D	D	D	D	D
	See feetnetes at and of table												

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terms,	and geographical definitions, see note at	t end			ation on geo	graphic areas	followed by *,	see Append	lix D. For mea	ining of abbrevia	ations and symbo	ols, see introduc	tory text]
			establis	ll hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	OKLAHOMA CITY—Con.												
339	Miscellaneous manufacturing	1	77	15	1 299	40 130	795	1 444	18 345	124 608	131 643	253 872	3 216
3391	Medical equipment and supplies manufacturing	-	34	5	537	19 518	310	574	7 874	34 704	72 405	103 587	D
33911	Medical equipment and supplies manufacturing	-	34	5	537	19 518	310	574	7 874	34 704	72 405	103 587	D
3399	Other miscellaneous manufacturing	1	43	10	762	20 612	485	870	10 471	89 904	59 238	150 285	D
	OWASSO												
31-33	Manufacturing	-	27	5	565	17 162	436	889	10 972	47 428	72 985	120 047	D
	PERRY												
31-33	Manufacturing	-	9	2	g	D	D	D	D	D	D	D	D
333	Machinery manufacturing	-	4	2	g	D	D	D	D	D	D	D	D
3331	Agriculture, construction, and mining machinery manufacturing	_	3	2	g	D	D	D	D	D	D	D	D
33312	Construction machinery	_				D	D	D	D	D	D	D	D
333120	manufacturing Construction machinery manufacturing	_	2	2	g g	D	D	D	D	D	D	D	D
	PONCA CITY												
31-33	Manufacturing	-	41	13	g	D	D	D	D	D	D	D	D
311	Food manufacturing	-	4	2	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	_	3	2	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	_	3	2	a	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses	_	2	2	g g	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing	-	11	2	f	D	D	D	D	D	D	D	D
3323	Architectural and structural metals manufacturing	-	3	2	f	D	D	D	D	D	D	D	D
33232	Ornamental and architectural metal products manufacturing	_	3	2	f	D	D	D	D	D	D	D	D
	POTEAU												
31-33	Manufacturing	1	13	3	f	D	D	D	D	D	D	D	D
	PRYOR CREEK												
31-33	Manufacturing	-	16	9	747	27 085	507	992	14 961	124 352	128 370	256 685	6 344
	SAND SPRINGS												
31-33	Manufacturing	2	34	14	1 680	71 959	1 224	2 491	43 277	177 412	219 684	401 043	8 544
331	Primary metal manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing	9	17	8	511	20 587	404	824	11 775	53 086	34 216	87 218	D
	SAPULPA												
31-33	Manufacturing	5	36	8	f	D	D	D	D	D	D	D	3 594
01.00	SEMINOLE		14		_			D				D	1 000
31-33 315	Manufacturing		14	3	g g	D D	D D	D D	D D	D D	D D	D D	1 008 D
3152	Cut and sew apparel												
31522	manufacturing	-	1	1	g	D	D	D	D	D	D	D	D
315224	apparel manufacturing Men's and boys' cut and sew trouser, slack, and jean	-	1	1	g	D	D	D	D	D	D	D	D
	manufacturing	ا –	1	1	gl	D	l D	D	D D	D	ام ا	D	D

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NAICS code			A establisl		All ami								
			establisi	nments ²	All elli	oloyees	Pro	duction work	kers				
	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
;	SHAWNEE												
31-33	Manufacturing	-	42	15	3 030	105 495	2 306	4 527	70 246	245 935	282 755	528 779	52 725
326	Plastics and rubber products manufacturing	_	9	4	g	D	D	D	D	D	D	D	D
3261	Plastics product manufacturing	-	7	4	g	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
33441	Semiconductor and other electronic component			2	f	D	D	D	D	D	D	D	D
334419	manufacturing Other electronic component manufacturing	_	2	2	f	D	D	D	D	D	D	D	D
,	STILLWATER												
31-33	Manufacturing	-	30	9	2 039	65 622	1 533	3 399	49 464	258 499	683 346	933 445	18 315
333	Machinery manufacturing	-	2	1	f	D	D	D	D	D	D	D	D
3336	Engine, turbine, and power transmission equipment manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
33361	Engine, turbine, and power transmission equipment			4	4		D	D			D		D
333618	manufacturing Other engine equipment manufacturing	-	1	1	f	D D	D D	D	D D	D D	D D	D D	D
-	TULSA												
31-33	Manufacturing	1	818	^r 246	r26 495	r962 980	r16 653	r32 525	r528 281	¹ 2 343 181	r2 858 062	r5 208 159	r139 668
311	Food manufacturing	1	22	8	2 040	67 543	1 004	2 055	30 035	150 979	129 236	278 453	7 266
3118	Bakeries and tortilla manufacturing	-	13	5	g	D	D	D	D	D	D	D	D
31181	Bread and bakery product manufacturing	_ 1	10 4	5 2	g	D D	D D	D D	D D	D D	D D	D D	D D
311813	Frozen cakes, pies, and other pastries												
322	manufacturing	4	1 11	1	f 513	D 15 796	D 316	D 600	D 9 514	D 47 623	D 37 295	D 85 343	D D
3222	Converted paper product												
	manufacturing	4	11	6	513	15 796	316	600	9 514	47 623	37 295	85 343	D
323	Printing and related support activities	1	106	15	1 236	39 687	902	1 630	22 853	89 560	47 190	128 750	7 732
3231	Printing and related support activities	1	106	15	1 236	39 687	902	1 630	22 853	89 560	47 190	128 750	7 732
32311 323110	Printing	1 -	94 33	14 9	g f	D D	D D	D D	D D	D D	D D	D D	7 642 D
324	Petroleum and coal products manufacturing	_	6	2	f	D	D	D	D	D	D	D	8 230
3241	Petroleum and coal products manufacturing	-	6	2	f	D	D	D	D	D	D	D	8 230
326	Plastics and rubber products manufacturing	1	32	11	764	20 674	587	1 139	13 020	51 640	65 397	117 582	3 907
3261	Plastics product manufacturing	1	25	9	625	16 751	484	949	10 551	44 617	59 606	104 728	D
327	Nonmetallic mineral product manufacturing	-	23	9	g	D	D	D	D	D	D	D	8 255
3272	Glass and glass product manufacturing	-	5	3	f	D	D	D	D	D	D	D	5 636
32721 327211	Glass and glass product manufacturing Flat glass manufacturing	_ _	5 1	3 1	f f	D D	D D	D D	D D	D D	D D	D D	5 636 D
331	Primary metal manufacturing	1	19	9	763	27 620	615	1 259	19 631	73 503	70 497	143 984	D

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terris, e	and geographical definitions, see note at	l Grid	l table. I	OI IIIIOIIII	lation on geo	grapriic areas	lollowed by ,	, see Append	alx B. Tor mee	I III OI ADDIEVI	alions and symbol	ois, see introduc	lory text]
			establisl	II nments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA-Con.												
332	Fabricated metal product manufacturing	3	r253	¹ 75	r6 237	^r 240 072	r4 368	r8 913	r143 494	⁷ 534 063	r359 531	r890 815	^r 27 363
3323	Architectural and structural metals manufacturing	1	r49	r14	r1 415	r50 949	r903	r1 823	r26 562	r122 678	r103 589	r224 830	r5 555
33231	Plate work and fabricated structural product manufacturing	_	22	7	['] 7921	^r 35 193	¹ 537	r1 141	r16 833	^r 88 842	75 352	r162 795	^r 4 474
3324	Boiler, tank, and shipping container manufacturing	2	28	16	g 921	03 130 D	D	D	D 10 000	D 00 042	73 632 D	102 733 D	D
33241	Power boiler and heat exchanger manufacturing	2	15	12	887	36 429	589	1 228	22 311	82 286	69 473	149 553	8 779
332410	Power boiler and heat exchanger manufacturing	2	15	12	887	36 429	589	1 228	22 311	82 286	69 473	149 553	8 779
3327	Machine shops; turned product; and screw, nut, and bolt manufacturing	5	89	16	1 291	52 358	991	2 010	36 690	99 433	54 459	153 868	D
33271 332710	Machine shops	3	79 79	14 14	935 935	34 792 34 792	711 711	1 366 1 366	23 939 23 939	65 995 65 995	29 490 29 490	95 327 95 327	4 368 4 368
3328	Coating, engraving, heat treating, and allied activities	6	27	9	567	21 313	445	904	14 460	47 572	21 892	69 320	1 995
33281	Coating, engraving, heat treating, and allied activities	6	27	9	567	21 313	445	904	14 460	47 572	21 892	69 320	1 995
3329	Other fabricated metal product manufacturing	3	38	14	1 140	44 001	773	1 538	22 504	94 705	61 001	156 153	2 657
33299	All other fabricated metal product manufacturing	3	29	10	f	D	D	D	D	D	D	D	D
332996	Fabricated pipe and pipe fitting manufacturing	4	13	7	623	22 716	478	968	13 242	48 687	34 897	82 930	1 526
333	Machinery manufacturing	2	110	49	6 408	231 512	2 929	5 594	94 747	516 006	543 489	1 077 097	40 315
3331	Agriculture, construction, and mining machinery manufacturing	6	19	8	782	33 307	470	916	15 582	128 005	153 271	290 370	4 620
3332	Industrial machinery manufacturing	1	21	10	h	D	D	D	D	D	D	D	D
33329	Other industrial machinery manufacturing	1	19	8	h	D	D	D	D	D	D	D	D
333298	All other industrial machinery manufacturing	1	12	8	2 756	75 252	703	1 251	25 888	145 742	113 813	254 894	D
3339	Other general purpose machinery manufacturing	1	33	17	1 347	57 251	815	1 526	26 980	104 508	136 978	250 114	9 072
33391	Pump and compressor manufacturing	_	10	8	f	D	D	D	D	D	D	D	D
334	Computer and electronic product manufacturing	_	32	11	1 935	48 425	1 138	1 893	22 019	96 916	97 071	194 539	D
3342	Communications equipment manufacturing	_	4	1	f	D	D	D	D	D	D	D	D
33422 334220	Radio and television broadcasting and wireless communications equipment manufacturing Radio and television broadcasting and wireless	_	4	1	f	D	D	D	D	D	D	D	D
	communications equipment manufacturing	-	4	1	f	D	D	D	D	D	D	D	D
3344	Semiconductor and other electronic component manufacturing	_	10	5	f	D	D	D	D	D	D	D	1 243
33441	Semiconductor and other electronic component manufacturing	_	10	5	f	D	D	D	D	D	D	D	1 243
335	Electrical equipment, appliance, and component manufacturing	1	^r 21	9	f	D	D	D	D	D	D	D	D
3353	Electrical equipment manufacturing	_	14	8	f	D	D	D	D	D	D	D	D
33531	Electrical equipment manufacturing	_	14	8	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing	-	23	9	1 495	65 707	1 189	2 448	48 913	134 552	111 651	257 859	D
3364	Aerospace product and parts manufacturing	-	11	6	g	D	D	D	D	D	D	D	D
33641 336411	Aerospace product and parts manufacturing Aircraft manufacturing	 - 	11 3	6 2	g f	D D	D D	D D	D D	D D	D D	D D	D D

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terms,	and geographical definitions, see note at	t end	of table.	For inform	ation on geo	graphic areas	followed by *,	see Append	lix D. For mea	ning of abbrevia	ations and symbo	ols, see introduc	tory text]
			establis	ll hments ²	All em	ployees	Pro	oduction work	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	TULSA—Con.												
339	Miscellaneous manufacturing	1	75	16	1 483	47 192	1 043	1 990	26 376	109 539	98 948	213 436	11 236
3399	Other miscellaneous manufacturing	1	50	12	1 267	40 416	883	1 722	22 303	95 538	94 032	194 470	D
33992	Sporting and athletic goods												
339920	manufacturing Sporting and athletic goods	-	10	4	770	24 686	536	1 051	13 250	61 134	74 387	140 740	D
	manufacturing	-	10	4	770	24 686	536	1 051	13 250	61 134	74 387	140 740	D
31-33	VINITA Manufacturing	_	9	5	741	20 197	587	1 213	13 099	68 382	48 122	116 179	D
01-00	WAGONER			3	/	20 137	307	1 210	10 033	00 302	40 122	110 173	D
31-33	Manufacturing	_	18	7	668	17 168	573	1 172	13 567	46 970	43 647	91 981	3 674
	BALANCE OF ADAIR COUNTY												
31-33	Manufacturing	2	9	5	g	D	D	D	D	D	D	D	D
311	Food manufacturing	3	4	3	f	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	8	2	2	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	8	2	2	,	D	D	D	D	D	D	D	D
311615	Poultry processing	9	1	1	į į	D	Ď	Ď	B	D	Б	D	Ď
	BALANCE OF BRYAN COUNTY												
31-33	Manufacturing	8	17	3	f	D	D	D	D	D	D	D	D
	BALANCE OF CREEK												
31-33	COUNTY	_	53	17	2 343	91 110	1 902	3 911	63 398	273 307	233 261	517 649	16 252
327	Manufacturing Nonmetallic mineral product		33	17	2 343	91 110	1 302	3 911	03 390	273 307	200 201	317 049	10 232
	manufacturing	-	6	4	899	30 401	803	1 577	25 502	113 208	62 163	179 526	D
3272	Glass and glass product manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
32721	Glass and glass product manufacturing	-	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing	1	25	7	571	24 827	418	857	17 082	47 423	35 781	84 332	D
	BALANCE OF GRADY COUNTY												
31-33	Manufacturing	-	15	1	f	D	D	D	D	D	D	D	D
332	Fabricated metal product manufacturing	_	4	1	f	D	D	D	D	D	D	D	D
3329	Other fabricated metal product manufacturing	_	2	1	f	D	D	D	D	D	D	D	D
33291	Metal valve manufacturing	_	1	1	, f	D	D	D	D	D	D	D	D
332913	Plumbing fixture fitting and trim manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
	BALANCE OF JOHNSTON COUNTY												
31-33	Manufacturing	1	10	2	f	D	D	D	D	D	D	D	D
336	Transportation equipment manufacturing	_	4	2	f	D	D	D	D	D	D	D	D
3362	Motor vehicle body and trailer manufacturing	_	4	2	f	D	D	D	D	D	D	D	D
33621	Motor vehicle body and trailer manufacturing		4	2		D	D	D	D	D	D	D	D
336214	Travel trailer and camper manufacturing	_	4	2	f f	D	D	D	D	D	D	D	D
	BALANCE OF KAY COUNTY												
31-33	Manufacturing	-	24	5	g	D	D	D	D	D	D	D	D
324	Petroleum and coal products manufacturing	_	2	1	f	D	D	D	D	D	D	D	D
3241	Petroleum and coal products			اد				_					-
32411	manufacturing Petroleum refineries	_	1	1	[D D	D D	D D	D D	D D	D D	D D	D D
324110	Petroleum refineries	-	1	1		D	D	D	Б	D	Б	D	D
31-33	BALANCE OF LOVE COUNTY Manufacturing	7	9	4	f	D	D	D	D	D	D	D	D

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

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			establis	III hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)	Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	BALANCE OF MCCURTAIN COUNTY												
31-33	Manufacturing	2	14	7	2 592	83 493	2 325	4 813	69 862	501 050	449 503	951 681	D
311	Food manufacturing	7	2	2	g	D	D	D	D	D	D	D	D
3116	Animal slaughtering and processing	9	1	1	g	D	D	D	D	D	D	D	D
31161	Animal slaughtering and processing	9	1	1	g	D	D	D	D	D	D	D	D
311615	Poultry processing	9	1	1	g	D	D	D	D	D	D	D	D
321	Wood product manufacturing	-	7	4	f	D	D	D	D	D	D	D	D
	BALANCE OF MAYES COUNTY												
31-33	Manufacturing	1	52	18	2 124	74 847	1 710	3 328	53 191	270 882	219 211	491 453	14 374
332	Fabricated metal product manufacturing	3	22	8	f	D	D	D	D	D	D	D	D
	BALANCE OF OKLAHOMA COUNTY												
31-33	Manufacturing	8	17	7	572	17 203	468	945	11 967	38 609	94 980	133 255	4 336
	BALANCE OF OKMULGEE COUNTY												
31-33	Manufacturing	-	18	5	1 194	40 970	1 094	1 420	35 654	195 635	70 232	259 599	15 654
311	Food manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
3119	Other food manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
31199 311999	All other food manufacturing All other miscellaneous food manufacturing	_ _	1	1	f f	D D	D D	D D	D D	D D	D D	D D	D D
	BALANCE OF ROGERS COUNTY												
31-33	Manufacturing	_	57	15	1 863	78 575	1 047	2 029	36 090	141 813	416 033	568 892	13 933
332	Fabricated metal product manufacturing	1	21	6	881	31 984	471	802	14 242	32 511	113 474	150 062	1 962
3324	Boiler, tank, and shipping container manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
33242	Metal tank (heavy gauge) manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
332420	Metal tank (heavy gauge) manufacturing	_	1	1	f	D	D	D	D	D	D	D	D
	BALANCE OF TULSA COUNTY												
31-33	Manufacturing	-	82	42	8 186	304 897	6 093	11 766	217 458	951 288	1 902 217	2 820 763	57 275
332	Fabricated metal product manufacturing	1	33	15	875	31 288	649	1 239	20 102	60 606	71 335	131 247	D
333	Machinery manufacturing	-	9	5	1 143	40 372	889	1 673	22 815	108 965	110 840	220 325	2 660
3334	Ventilation, heating, air- conditioning, and commercial refrigeration equipment manufacturing	_	2	1	f	D	D	D	D	D	D	D	D
33341	Ventilation, heating, air- conditioning, and commercial												
333415	refrigeration equipment manufacturing Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment	_	2	1	f	D	D	D	D	D	D	D	D
335	manufacturing Electrical equipment, appliance, and	_	1	1	f	D	D	D	D	D	D	D	D
3352	component manufacturing Household appliance	_	5	3	g	D D	D D	D D	D D	D D	D D	D D	D D
33522	manufacturing		1	1	g g	D	D	D D	D	D	D D	D	D
335221	Household cooking appliance manufacturing.	_	1	1		D	D	D	D		D	D	D

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

				III hments ²	All em	ployees	Pro	oduction wor	kers				
NAICS code	Geographic area and industry	E¹	Total	With 20 em- ploy- ees or more	Number ³	Payroll (\$1,000)	Number ⁴	Hours (1,000)		Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
	BALANCE OF TULSA COUNTY —Con.												
336	Transportation equipment manufacturing	_	8	8	3 384	147 291	2 334	4 803	114 960	419 333	660 076	1 054 507	D
3361	Motor vehicle manufacturing	-	1	1	f	D	D	D	D	D	D	D	D
33612 336120	Heavy duty truck manufacturing Heavy duty truck manufacturing	-	1	1	f f	D D	D D	D D	D D	D D	D D	D D	D D
3364	Aerospace product and parts manufacturing	_	5	5	h	D	D	D	D	D	D	D	D
33641 336413	Aerospace product and parts manufacturing Other aircraft parts and	_	5	5	h	D	D	D	D	D	D	D	D
	auxiliary equipment manufacturing	_	5	5	h	D	D	D	D	D	D	D	D

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

²Includes establishments with spyroll at any time during the year.
³Industries with 500 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 500 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: f–500 to 999 employees; g–1,000 to 2,499 employees; h–2,500 to 4,999 employees; i–5,000 to 99,999 employees; i–50,000 to 99,999 employees; m–100,000 employees or more.

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

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

Table 5. Detailed Statistics for the State: 2002

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

Item	Value
OKLAHOMA	
Companies ¹ number	N
All establishments ²	'4 027 2 953 '756 318
All employees³ number. Total compensation \$1,000. Annual payroll \$1,000. Total fringe benefits \$1,000.	'149 983 '6 816 434 '5 355 937 '1 460 497
Production workers, average for year	r109 230 r109 759 r109 866 r109 592 r107 461
Production worker hours	^r 214 758 ^r 3 438 187
Total cost of materials \$1,000. Materials, parts, containers, packaging, etc., used \$1,000. Resales \$1,000. Purchased fuels \$1,000. Purchased electricity \$1,000. Contract work \$1,000.	'23 001 158 '20 874 282 '1 058 147 '353 109 '346 630 '368 990
Quantity of electricity purchased for heat and power	^r 9 283 649 D
Total value of shipments \$1,000. Value of resales \$1,000.	⁷ 39 924 050 ¹ 1 280 774
Value added\$1,000	¹ 17 005 404
Total inventories, beginning of year \$1,000. Finished goods inventories \$1,000. Work-in-process inventories \$1,000. Materials and supplies inventories \$1,000.	r4 128 662 r1 631 074 r734 045 r1 763 543
Total inventories, end of year \$1,000. Finished goods inventories \$1,000. Work-in-process inventories \$1,000. Materials and supplies inventories \$1,000.	'3 965 888 '1 657 353 '809 157 '1 499 378
Gross value of depreciable assets (acquisition costs) at beginning of year \$1,000 Total capital expenditures (new and used) \$1,000 Buildings and other structures (new and used) \$1,000 Machinery and equipment (new and used) \$1,000 Automobiles, trucks, etc., for highway use \$1,000 Computers and peripheral data processing equipment \$1,000 All other expenditures for machinery and equipment \$1,000 Total retirements \$1,000 Gross value of depreciable assets at end of year \$1,000	'16 038 282 '1 046 987 '148 399 '898 588 '37 504 '68 704 '792 380 '552 978 '16 532 291
Depreciation charges during year\$1,000	¹ 965 639
Total rental payments \$1,000. Buildings and other structures \$1,000. Machinery and equipment \$1,000.	r263 109 r127 849 r135 260

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

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

²Includes establishments with payroll at any time during the year.

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

Appendix A. Explanation of Terms

COMPANY

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

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

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

Establishment

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

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

PAYROLL

This item includes the gross earnings of all employees on the payrolls of operating manufacturing establishments paid in the calendar year. Respondents were told they could follow the definition of payrolls used for calculating the federal withholding tax. It includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' social security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of corporations; it excludes payments to proprietors or partners of unincorporated concerns. Also excluded are payments to members of Armed Forces and pensioners carried on the active payrolls of manufacturing establishments.

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

The ASM provides estimates of employers' total supplemental labor costs (those required by federal and state laws and those incurred voluntarily or as part of collective bargaining agreements).

TOTAL FRINGE BENEFITS

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

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

NUMBER OF EMPLOYEES

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

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

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

Production Workers

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

All Other Employees

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

PRODUCTION-WORKER HOURS

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

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COST OF MATERIALS

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

Included in this item are:

- 1. Cost of parts, components, containers, etc. Includes all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year.
- 2. Cost of products bought and sold in the same condition.
- Cost of fuels consumed for heat and power. Includes the cost of materials or fuel consumed, whether purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.
- 4. Cost of purchased electricity. The cost of purchased electric energy represents the amount actually used during the year for heat and power. In addition, information was collected on the quantity of electric energy generated by the establishment and the quantity of electric energy sold or transferred to other plants of the same company.
- 5. Cost of contract work. This term applies to work done by others on materials furnished by the manufacturing establishment. The actual cost of the material is to be reported on the cost of materials, parts, and containers line of this item. The term "Contract Work" refers to the fee a company pays to another company to perform a service.

Specific materials consumed

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

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

QUANTITY OF ELECTRICITY PURCHASED FOR HEAT AND POWER

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

TOTAL VALUE OF SHIPMENTS

Includes the received or receivable net selling values, "Free on Board" (FOB) plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts, such as receipts for contract work performed for others, installation and repair, sales of scrap, and sales of products bought and sold without further processing. Included are all

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items made by or for the establishments from material owned by it, whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

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

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

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

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

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

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

Duplication in cost of materials and value of shipment

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

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

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

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

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

Specialization and coverage ratio

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

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

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

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

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

VALUE ADDED

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

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

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

TOTAL END-OF-YEAR INVENTORIES

This item is comprised of:

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

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

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

Inventory valuations include:

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

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GROSS VALUE OF DEPRECIABLE/DEPLETABLE ASSETS AT BEGINNING OF YEAR

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

Gross value of depreciable/depletable assets includes:

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

Excluded are nondepreciable capital assets including inventories and intangible assets.

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

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

CAPITAL EXPENDITURES FOR NEW AND USED PLANT AND EQUIPMENT

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

These data include expenditures for:

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

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

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

RETIREMENTS OF DEPRECIABLE ASSETS

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

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RENTAL PAYMENTS

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

When an establishment of a multiestablishment company was charged rent by another part of the same company for the use of assets owned by the company, it was instructed to exclude that cost from rental payments.

However, the book value (original cost) of these company-owned assets was to be reported as assets of the establishment at the end of the year.

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

DEPRECIATION CHARGES FOR FIXED ASSETS

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

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Appendix B. NAICS Codes, Titles, and Descriptions

SECTOR 31-33 MANUFACTURING

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

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

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

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

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

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

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

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

311 FOOD MANUFACTURING

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

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

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

3111 ANIMAL FOOD MANUFACTURING

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

31111 ANIMAL FOOD MANUFACTURING

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

311111 DOG AND CAT FOOD MANUFACTURING

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

311119 OTHER ANIMAL FOOD MANUFACTURING

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

3112 GRAIN AND OILSEED MILLING

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

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

31121 FLOUR MILLING AND MALT MANUFACTURING

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

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

311211 FLOUR MILLING

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

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

311212 RICE MILLING

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

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

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

311213 MALT MANUFACTURING

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

31122 STARCH AND VEGETABLE FATS AND OILS MANUFACTURING

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

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

311221 WET CORN MILLING

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

311222 SOYBEAN PROCESSING

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

311223 OTHER OILSEED PROCESSING

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

311225 FATS AND OILS REFINING AND BLENDING

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

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

31123 BREAKFAST CEREAL MANUFACTURING

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

311230 BREAKFAST CEREAL MANUFACTURING

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

3113 SUGAR AND CONFECTIONERY PRODUCT MANUFACTURING

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

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

31131 SUGAR MANUFACTURING

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

311311 SUGARCANE MILLS

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

311312 CANE SUGAR REFINING

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

311313 BEET SUGAR MANUFACTURING

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

31132 CHOCOLATE AND CONFECTIONERY MANUFACTURING FROM CACAO BEANS

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

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311320 CHOCOLATE AND CONFECTIONERY MANUFACTURING FROM CACAO BEANS

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

31133 CONFECTIONERY MANUFACTURING FROM PURCHASED CHOCOLATE

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

311330 CONFECTIONERY MANUFACTURING FROM PURCHASED CHOCOLATE

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

31134 NONCHOCOLATE CONFECTIONERY MANUFACTURING

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

311340 NONCHOCOLATE CONFECTIONERY MANUFACTURING

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

3114 FRUIT AND VEGETABLE PRESERVING AND SPECIALTY FOOD MANUFACTURING

This industry group comprises establishments primarily engaged in the following:

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

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

31141 FROZEN FOOD MANUFACTURING

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

311411 FROZEN FRUIT, JUICE, AND VEGETABLE MANUFACTURING

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

311412 FROZEN SPECIALTY FOOD MANUFACTURING

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

31142 FRUIT AND VEGETABLE CANNING, PICKLING, AND DRYING

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

311421 FRUIT AND VEGETABLE CANNING

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

311422 SPECIALTY CANNING

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

311423 DRIED AND DEHYDRATED FOOD MANUFACTURING

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

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

3115 DAIRY PRODUCT MANUFACTURING

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

31151 DAIRY PRODUCT (EXCEPT FROZEN) MANUFACTURING

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

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

311511 FLUID MILK MANUFACTURING

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

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

311512 CREAMERY BUTTER MANUFACTURING

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

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311513 CHEESE MANUFACTURING

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

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

311514 DRY, CONDENSED, AND EVAPORATED DAIRY PRODUCT MANUFACTURING

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

31152 ICE CREAM AND FROZEN DESSERT MANUFACTURING

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

311520 ICE CREAM AND FROZEN DESSERT MANUFACTURING

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

3116 ANIMAL SLAUGHTERING AND PROCESSING

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

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

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

31161 ANIMAL SLAUGHTERING AND PROCESSING

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

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

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

311611 ANIMAL (EXCEPT POULTRY) SLAUGHTERING

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

311612 MEAT PROCESSED FROM CARCASSES

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

311613 RENDERING AND MEAT BYPRODUCT PROCESSING

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

311615 POULTRY PROCESSING

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

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

3117 SEAFOOD PRODUCT PREPARATION AND PACKAGING

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

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

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

31171 SEAFOOD PRODUCT PREPARATION AND PACKAGING

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

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

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

311711 SEAFOOD CANNING

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

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

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

311712 FRESH AND FROZEN SEAFOOD PROCESSING

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

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

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

3118 BAKERIES AND TORTILLA MANUFACTURING

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

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

31181 BREAD AND BAKERY PRODUCT MANUFACTURING

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

311811 RETAIL BAKERIES

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

311812 COMMERCIAL BAKERIES

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

311813 FROZEN CAKES, PIES, AND OTHER PASTRIES MANUFACTURING

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

31182 COOKIE, CRACKER, AND PASTA MANUFACTURING

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

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

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

311821 COOKIE AND CRACKER MANUFACTURING

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

311822 FLOUR MIXES AND DOUGH MANUFACTURING FROM PURCHASED FLOUR

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

311823 DRY PASTA MANUFACTURING

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

311821 COOKIE AND CRACKER MANUFACTURING

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

311822 FLOUR MIXES AND DOUGH MANUFACTURING FROM PURCHASED FLOUR

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

311823 DRY PASTA MANUFACTURING

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

31183 TORTILLA MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing tortillas.

311830 TORTILLA MANUFACTURING

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

3119 OTHER FOOD MANUFACTURING

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

31191 SNACK FOOD MANUFACTURING

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

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

311911 ROASTED NUTS AND PEANUT BUTTER MANUFACTURING

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

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

311919 OTHER SNACK FOOD MANUFACTURING

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

31192 COFFEE AND TEA MANUFACTURING

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

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

311920 COFFEE AND TEA MANUFACTURING

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

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

31193 FLAVORING SYRUP AND CONCENTRATE MANUFACTURING

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

311930 FLAVORING SYRUP AND CONCENTRATE MANUFACTURING

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

31194 SEASONING AND DRESSING MANUFACTURING

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

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

311941 MAYONNAISE, DRESSING, AND OTHER PREPARED SAUCE MANUFACTURING

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

311942 SPICE AND EXTRACT MANUFACTURING

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

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

31199 ALL OTHER FOOD MANUFACTURING

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

311991 PERISHABLE PREPARED FOOD MANUFACTURING

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

311999 ALL OTHER MISCELLANEOUS FOOD MANUFACTURING

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

312 BEVERAGE AND TOBACCO PRODUCT MANUFACTURING

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

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

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

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

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

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

3121 BEVERAGE MANUFACTURING

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

31211 SOFT DRINK AND ICE MANUFACTURING

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

1. Manufacturing soft drinks;

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

312111 SOFT DRINK MANUFACTURING

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

312112 BOTTLED WATER MANUFACTURING

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

312113 ICE MANUFACTURING

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

31212 BREWERIES

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

312120 BREWERIES

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

31213 WINERIES

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

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

312130 WINERIES

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

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

31214 DISTILLERIES

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

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

312140 DISTILLERIES

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

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

3122 TOBACCO MANUFACTURING

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

31221 TOBACCO STEMMING AND REDRYING

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

312210 TOBACCO STEMMING AND REDRYING

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

31222 TOBACCO PRODUCT MANUFACTURING

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

312221 CIGARETTE MANUFACTURING

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

312229 OTHER TOBACCO PRODUCT MANUFACTURING

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

313 TEXTILE MILLS

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

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

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

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

3131 FIBER, YARN, AND THREAD MILLS

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

31311 FIBER, YARN, AND THREAD MILLS

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

1. spinning yarn

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

313111 YARN SPINNING MILLS

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

313112 YARN TEXTURIZING, THROWING, AND TWISTING MILLS

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

313113 THREAD MILLS

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

3132 FABRIC MILLS

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

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

31321 BROADWOVEN FABRIC MILLS

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

313210 BROADWOVEN FABRIC MILLS

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

31322 NARROW FABRIC MILLS AND SCHIFFLI MACHINE EMBROIDERY

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

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

313221 NARROW FABRIC MILLS

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

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

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

313222 SCHIFFLI MACHINE EMBROIDERY

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

31323 NONWOVEN FABRIC MILLS

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

313230 NONWOVEN FABRIC MILLS

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

31324 KNIT FABRIC MILLS

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

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

313241 WEFT KNIT FABRIC MILLS

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

313249 OTHER KNIT FABRIC AND LACE MILLS

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

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

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

3133 TEXTILE AND FABRIC FINISHING AND FABRIC COATING MILLS

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

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

31331 TEXTILE AND FABRIC FINISHING MILLS

This industry comprises:

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

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

313311 BROADWOVEN FABRIC FINISHING MILLS

This U.S. industry comprises:

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

313312 TEXTILE AND FABRIC FINISHING (EXCEPT BROADWOVEN FABRIC) MILLS

This U.S. industry comprises:

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

31332 FABRIC COATING MILLS

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

313320 FABRIC COATING MILLS

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

314 TEXTILE PRODUCT MILLS

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

3141 TEXTILE FURNISHINGS MILLS

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

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

31411 CARPET AND RUG MILLS

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

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

314110 CARPET AND RUG MILLS

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

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

31412 CURTAIN AND LINEN MILLS

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

314121 CURTAIN AND DRAPERY MILLS

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

314129 OTHER HOUSEHOLD TEXTILE PRODUCT MILLS

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

3149 OTHER TEXTILE PRODUCT MILLS

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

31491 TEXTILE BAG AND CANVAS MILLS

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

314911 TEXTILE BAG MILLS

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

314912 CANVAS AND RELATED PRODUCT MILLS

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

31499 ALL OTHER TEXTILE PRODUCT MILLS

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

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314991 ROPE, CORDAGE, AND TWINE MILLS

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

314992 TIRE CORD AND TIRE FABRIC MILLS

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

314999 ALL OTHER MISCELLANEOUS TEXTILE PRODUCT MILLS

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

315 APPAREL MANUFACTURING

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

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

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

3151 APPAREL KNITTING MILLS

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

31511 HOSIERY AND SOCK MILLS

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

315111 SHEER HOSIERY MILLS

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

315119 OTHER HOSIERY AND SOCK MILLS

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

31519 OTHER APPAREL KNITTING MILLS

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

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

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

315191 OUTERWEAR KNITTING MILLS

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

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

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

315192 UNDERWEAR AND NIGHTWEAR KNITTING MILLS

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

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

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

3152 CUT AND SEW APPAREL MANUFACTURING

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

31521 CUT AND SEW APPAREL CONTRACTORS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

31529 OTHER CUT AND SEW APPAREL MANUFACTURING

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

315291 INFANTS' CUT AND SEW APPAREL MANUFACTURING

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

315292 FUR AND LEATHER APPAREL MANUFACTURING

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

315299 ALL OTHER CUT AND SEW APPAREL MANUFACTURING

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

3159 APPAREL ACCESSORIES AND OTHER APPAREL MANUFACTURING

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

31599 APPAREL ACCESSORIES AND OTHER APPAREL MANUFACTURING

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

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

315991 HAT, CAP, AND MILLINERY MANUFACTURING

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

315992 GLOVE AND MITTEN MANUFACTURING

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

315993 MEN'S AND BOYS' NECKWEAR MANUFACTURING

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

315999 OTHER APPAREL ACCESSORIES AND OTHER APPAREL MANUFACTURING

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

316 LEATHER AND ALLIED PRODUCT MANUFACTURING

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

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

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3161 LEATHER AND HIDE TANNING AND FINISHING

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

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

31611 LEATHER AND HIDE TANNING AND FINISHING

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

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

316110 LEATHER AND HIDE TANNING AND FINISHING

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

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

3162 FOOTWEAR MANUFACTURING

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

31621 FOOTWEAR MANUFACTURING

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

316211 RUBBER AND PLASTICS FOOTWEAR MANUFACTURING

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

316212 HOUSE SLIPPER MANUFACTURING

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

316213 MEN'S FOOTWEAR (EXCEPT ATHLETIC) MANUFACTURING

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

316214 WOMEN'S FOOTWEAR (EXCEPT ATHLETIC) MANUFACTURING

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

316219 OTHER FOOTWEAR MANUFACTURING

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

3169 OTHER LEATHER AND ALLIED PRODUCT MANUFACTURING

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

31699 OTHER LEATHER AND ALLIED PRODUCT MANUFACTURING

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

316991 LUGGAGE MANUFACTURING

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

316992 WOMEN'S HANDBAG AND PURSE MANUFACTURING

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

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

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

316999 ALL OTHER LEATHER GOOD MANUFACTURING

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

321 WOOD PRODUCT MANUFACTURING

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

3211 SAWMILLS AND WOOD PRESERVATION

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

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32111 SAWMILLS AND WOOD PRESERVATION

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

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

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

321113 SAWMILLS

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

321114 WOOD PRESERVATION

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

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

3212 VENEER, PLYWOOD, AND ENGINEERED WOOD PRODUCT MANUFACTURING

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

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

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

32121 VENEER, PLYWOOD, AND ENGINEERED WOOD PRODUCT MANUFACTURING

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

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

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

321211 HARDWOOD VENEER AND PLYWOOD MANUFACTURING

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

321212 SOFTWOOD VENEER AND PLYWOOD MANUFACTURING

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

321213 ENGINEERED WOOD MEMBER (EXCEPT TRUSS) MANUFACTURING

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

321214 TRUSS MANUFACTURING

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

321219 RECONSTITUTED WOOD PRODUCT MANUFACTURING

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

3219 OTHER WOOD PRODUCT MANUFACTURING

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

32191 MILLWORK

This industry comprises establishments primarily engaged in manufacturing hardwood and softwood cut stock and dimension stock (i.e., shapes); wood windows and wood doors; and other millwork including wood flooring. Dimension stock or cut stock is defined as lumber and worked wood products cut or shaped to specialized sizes. These establishments generally use woodworking machinery, such as jointers, planers, lathes, and routers to shape wood.

321911 WOOD WINDOW AND DOOR MANUFACTURING

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

321912 CUT STOCK, RESAWING LUMBER, AND PLANING

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

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

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

321918 OTHER MILLWORK (INCLUDING FLOORING)

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

32192 WOOD CONTAINER AND PALLET MANUFACTURING

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

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321920 WOOD CONTAINER AND PALLET MANUFACTURING

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

32199 ALL OTHER WOOD PRODUCT MANUFACTURING

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

321991 MANUFACTURED HOME (MOBILE HOME) MANUFACTURING

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

321992 PREFABRICATED WOOD BUILDING MANUFACTURING

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

321999 ALL OTHER MISCELLANEOUS WOOD PRODUCT MANUFACTURING

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

322 PAPER MANUFACTURING

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

The Paper Manufacturing subsector is subdivided into two industry groups, the first for the manufacturing of pulp and paper and the second for the manufacturing of converted paper products. Paper making is treated as the core activity of the subsector. Therefore, any establishment that makes paper (including paperboard), either alone or in combination with pulp manufacturing or paper converting, is classified as a paper or paperboard mill. Establishments that make pulp without making paper are classified as pulp mills. Pulp mills, paper mills and paperboard mills comprise the first industry group.

Establishments that make products from purchased paper and other materials make up the second industry group, Converted Paper Product Manufacturing. This general activity is then subdivided based, for the most part, on process distinctions. Paperboard container manufacturing uses corrugating, cutting, and shaping machinery to form paperboard into containers. Paper bag and coated and treated paper manufacturing establishments cut and coat paper and foil. Stationery product manufacturing establishments make a variety of paper products used for writing, filing, and similar applications. Other converted paper product manufacturing includes, in particular, the conversion of sanitary paper stock into such things as tissue paper and disposable diapers.

An important process used in the Paper Bag and Coated and Treated Paper Manufacturing industry is lamination, often combined with coating. Lamination and coating makes a composite material with improved properties of strength, impermeability, and so on. The laminated materials may be paper, metal foil, or plastics film. While paper is often one of the components, it is not always. Lamination of plastics film to plastics film is classified in the NAICS Subsector 326, Plastics and Rubber Products Manufacturing, because establishments that do this often first make the film. The same situation holds with respect to bags. The manufacturing of bags from plastics only, whether or not laminated, is classified in Subsector 326, Plastics and Rubber Products Manufacturing, but all other bag manufacturing is classified in this subsector.

Excluded from this subsector are photosensitive papers. These papers are chemically treated and are classified in Industry 32599, All Other Chemical Product and Preparation Manufacturing.

3221 PULP, PAPER, AND PAPERBOARD MILLS

This industry group comprises establishments primarily engaged in manufacturing pulp, paper, or paperboard.

32211 PULP MILLS

This industry comprises establishments primarily engaged in manufacturing pulp without manufacturing paper or paperboard. The pulp is made by separating the cellulose fibers from the other impurities in wood or other materials, such as used or recycled rags, linters, scrap paper, and straw.

322110 PULP MILLS

This U.S. industry comprises establishments primarily engaged in manufacturing pulp without manufacturing paper or paperboard. The pulp is made by separating the cellulose fibers from the other impurities in wood or other materials, such as used or recycled rags, linters, scrap paper, and straw.

32212 PAPER MILLS

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

322121 PAPER (EXCEPT NEWSPRINT) MILLS

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

322122 NEWSPRINT MILLS

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

32213 PAPERBOARD MILLS

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

322130 PAPERBOARD MILLS

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

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3222 CONVERTED PAPER PRODUCT MANUFACTURING

This industry group comprises establishments primarily engaged in converting paper or paper-board without manufacturing paper or paperboard.

32221 PAPERBOARD CONTAINER MANUFACTURING

This industry comprises establishments primarily engaged in converting paperboard into containers without manufacturing paperboard. These establishments use corrugating, cutting, and shaping machinery to form paperboard into containers. Products made by these establishments include boxes; corrugated sheets, pads, and pallets; paper dishes; and fiber drums and reels.

322211 CORRUGATED AND SOLID FIBER BOX MANUFACTURING

This U.S. industry comprises establishments primarily engaged in laminating purchased paper or paperboard into corrugated or solid fiber boxes and related products, such as pads, partitions, pallets, and corrugated paper without manufacturing paperboard. These boxes are generally used for shipping.

322212 FOLDING PAPERBOARD BOX MANUFACTURING

This U.S. industry comprises establishments primarily engaged in converting paperboard (except corrugated) into folding paperboard boxes without manufacturing paper and paperboard.

322213 SETUP PAPERBOARD BOX MANUFACTURING

This U.S. industry comprises establishments primarily engaged in converting paperboard into setup paperboard boxes (i.e., rigid-sided boxes not shipped flat) without manufacturing paperboard.

322214 FIBER CAN, TUBE, DRUM, AND SIMILAR PRODUCTS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in converting paperboard into fiber cans, tubes, drums, and similar products without manufacturing paperboard.

322215 NONFOLDING SANITARY FOOD CONTAINER MANUFACTURING

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

32222 PAPER BAG AND COATED AND TREATED PAPER MANUFACTURING

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

- 1. cutting and coating paper and paperboard;
- 2. cutting and laminating paper and paperboard and other flexible materials (except plastics film to plastics film);
- 3. manufacturing bags or multiwall bags or sacks of paper, metal foil, coated paper, or laminates or coated combinations of paper and foil with plastics film;
- 4. manufacturing laminated aluminum and other converted metal foils from purchased foils; and
- 5. surface coating paper or paperboard.

322221 COATED AND LAMINATED PACKAGING PAPER AND PLASTICS FILM MANUFACTURING

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

1. cutting and coating paper and

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;
- cutting and laminating paper and other flexible materials (except plastics film to plastics film);
- 3. laminating aluminum and other metal foils for nonpackaging uses from purchased foils.

The products made in this industry are made from purchased sheet materials and may be printed in the same establishment.

322223 PLASTICS, FOIL, AND COATED PAPER BAG MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing bags of coated paper, of metal foil, or of laminated or coated combinations of plastics, foil, and paper, whether or not printed.

322224 UNCOATED PAPER AND MULTIWALL BAG MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing uncoated paper bags or multiwall bags and sacks.

322225 LAMINATED ALUMINUM FOIL MANUFACTURING FOR FLEXIBLE PACKAGING USES

This U.S. industry comprises establishments primarily engaged in laminating aluminum and other metal foil into products with flexible packaging uses or gift wrap and other packaging wrap applications.

322226 SURFACE-COATED PAPERBOARD MANUFACTURING

This U.S. industry comprises establishments primarily engaged in laminating, lining, or surface coating purchased paperboard to make other paperboard products.

32223 STATIONERY PRODUCT MANUFACTURING

This industry comprises establishments primarily engaged in converting paper or paperboard into products used for writing, filing, art work, and similar applications.

322231 DIE-CUT PAPER AND PAPERBOARD OFFICE SUPPLIES MANUFACTURING

This U.S. industry comprises establishments primarily engaged in converting paper rollstock or paperboard into die-cut paper or paperboard office supplies. For the purpose of this industry, office supplies are defined as office products, such as filing folders, index cards, rolls for adding machines, file separators and dividers, tabulating cards, and other paper and paperboard office supplies.

322232 ENVELOPE MANUFACTURING

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

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322233 STATIONERY, TABLET, AND RELATED PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in converting paper and paper-board 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.

3231 PRINTING AND RELATED SUPPORT ACTIVITIES

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

- 1. Printing on apparel and textile products, paper, metal, glass, plastics, and other materials, except fabric (grey goods) and/or
- 2. Performing prepress (e.g., platemaking, typesetting) and postpress services (e.g., book binding) in support of printing activities.

32311 PRINTING

This industry comprises establishments primarily engaged in printing on apparel and textile products, paper, metal, glass, plastics, and other materials, except fabric (grey goods). The printing processes employed include, but are not limited to, lithographic, gravure, screen, flexographic, digital, and letterpress. Establishments in this industry do not manufacture the stock that they print but may perform postprinting activities, such as folding, cutting, or laminating the materials they print, and mailing.

323110 COMMERCIAL LITHOGRAPHIC PRINTING

This U.S. industry comprises establishments primarily engaged in lithographic (i.e., offset) printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in lithographic printing on purchased stock materials, such as stationery, letterhead, invitations, labels, and similar items, on a job order basis.

323111 COMMERCIAL GRAVURE PRINTING

This U.S. industry comprises establishments primarily engaged in gravure printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in gravure printing on purchased stock materials, such as stationery, letterhead, invitations, labels, and similar items, on a job order basis.

323112 COMMERCIAL FLEXOGRAPHIC PRINTING

This U.S. industry comprises establishments primarily engaged in flexographic printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in flexographic printing on purchased stock materials, such as stationery, invitations, labels, and similar items, on a job order basis.

323113 COMMERCIAL SCREEN PRINTING

This U.S. industry comprises establishments primarily engaged in screen printing without publishing (except books, grey goods, and manifold business forms). This industry includes establishments engaged in screen printing on purchased stock materials, such as stationery, invitations, labels, and similar items, on a job order basis. Establishments primarily engaged in printing on apparel and textile products, such as T-shirts, caps, jackets, towels, and napkins, are included in this industry.

323114 QUICK PRINTING

This U.S. industry comprises establishments primarily engaged in traditional printing activities, such as short-run offset printing or prepress services, in combination with providing document photocopying service. Prepress services include receiving documents in electronic format and directly duplicating from the electronic file and formatting, colorizing, and otherwise modifying the original document to improve presentation. These establishments, known as quick printers, generally provide short-run printing and copying with fast turnaround times.

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323115 DIGITAL PRINTING

This U.S. industry comprises establishments primarily engaged in printing graphical materials using digital printing equipment. Establishments known as digital printers typically provide sophisticated prepress services including using scanners to input images and computers to manipulate and format the graphic images prior to printing.

323116 MANIFOLD BUSINESS FORMS PRINTING

This U.S. industry comprises establishments primarily engaged in printing special forms, including checkbooks, for use in the operation of a business. The forms may be in single and multiple sets, including carbonized, interleaved with carbon, or otherwise processed for multiple reproduction.

323117 BOOKS PRINTING

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

323118 BLANKBOOK, LOOSELEAF BINDERS, AND DEVICES MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing blankbooks, looseleaf devices, and binders. Establishments in this industry may print or print and bind.

323119 OTHER COMMERCIAL PRINTING

This U.S. industry comprises establishments primarily engaged in commercial printing (except lithographic, gravure, screen, or flexographic printing) without publishing (except books, grey goods, and manifold business forms). Printing processes included in this industry are letterpress printing and engraving printing. This industry includes establishments engaged in commercial printing on purchased stock materials, such as stationery, invitations, labels, and similar items, on a job order basis.

32312 SUPPORT ACTIVITIES FOR PRINTING

This industry comprises establishments primarily engaged in performing prepress (e.g., platemaking, typesetting) and postpress services (e.g., book binding) in support of printing activities.

323121 TRADEBINDING AND RELATED WORK

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

- 1. tradebinding;
- 2. sample mounting; and
- 3. postpress services (e.g., book or paper bronzing, die-cutting, edging, embossing, folding, gilding, gluing, indexing).

323122 PREPRESS SERVICES

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

- 1. prepress services, such as imagesetting or typesetting, for printers and
- 2. preparing film or plates for printing purposes.

324 PETROLEUM AND COAL PRODUCTS MANUFACTURING

The Petroleum and Coal Products Manufacturing subsector is based on the transformation of crude petroleum and coal into usable products. The dominant process is petroleum refining that involves the separation of crude petroleum into component products through such techniques as cracking and distillation.

In addition, this subsector includes establishments that primarily further process refined petroleum and coal products and produce products, such as asphalt coatings and petroleum lubricating oils. However, establishments that manufacture petrochemicals from refined petroleum are classified in Industry 32511, Petrochemical Manufacturing.

3241 PETROLEUM AND COAL PRODUCTS MANUFACTURING

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

- 1. Petroleum refineries manufacturing;
- 2. Asphalt paving, roofing, and saturated materials manufacturing; and/or
- 3. Other petroleum and coal products manufacturing.

32411 PETROLEUM REFINERIES

This industry comprises establishments primarily engaged in refining crude petroleum into refined petroleum. Petroleum refining involves one or more of the following activities:

- 1. fractionation;
- 2. straight distillation of crude oil; and
- 3. cracking.

324110 PETROLEUM REFINERIES

This U.S. industry comprises establishments primarily engaged in refining crude petroleum into refined petroleum. Petroleum refining involves one or more of the following activities:

- 1. fractionation;
- 2. straight distillation of crude oil; and
- 3. cracking.

32412 ASPHALT PAVING, ROOFING, AND SATURATED MATERIALS MANUFACTURING

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

- 1. manufacturing asphalt and tar paving mixtures and blocks and roofing cements and coatings from purchased asphaltic materials and/or
- 2. saturating purchased mats and felts with asphalt or tar from purchased asphaltic materials.

324121 ASPHALT PAVING MIXTURE AND BLOCK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing asphalt and tar paving mixtures and blocks from purchased asphaltic materials.

324122 ASPHALT SHINGLE AND COATING MATERIALS MANUFACTURING

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

- 1. saturating purchased mats and felts with asphalt or tar from purchased asphaltic materials
- 2. manufacturing asphalt and tar and roofing cements and coatings from purchased asphaltic materials.

32419 OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing petroleum products (except asphalt paving, roofing and saturated materials) from refined petroleum or coal products made in coke ovens not integrated with a steel mill.

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324191 PETROLEUM LUBRICATING OIL AND GREASE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in blending or compounding refined petroleum to make lubricating oils and greases and/or re-refining used petroleum lubricating oils.

324199 ALL OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing petroleum products (except asphalt paving, roofing, and saturated materials and lubricating oils and greases) from refined petroleum and coal products made in coke ovens not integrated with a steel mill.

325 CHEMICAL MANUFACTURING

The Chemical Manufacturing subsector is based on the transformation of organic and inorganic raw materials by a chemical process and the formulation of products. This subsector distinguishes the production of basic chemicals that comprise the first industry group from the production of intermediate and end products produced by further processing of basic chemicals that make up the remaining industry groups.

This subsector does not include all industries transforming raw materials by a chemical process. It is common for some chemical processing to occur during mining operations. These beneficiating operations, such as copper concentrating, are classified in Sector 21, Mining. Furthermore, the refining of crude petroleum is included in Subsector 324, Petroleum and Coal Products Manufacturing. In addition, the manufacturing of aluminum oxide is included in Subsector 331, Primary Metal Manufacturing; and beverage distilleries are classified in Subsector 312, Beverage and Tobacco Product Manufacturing. As in the case of these two activities, the grouping of industries into subsectors may take into account the association of the activities performed with other activities in the subsector.

3251 BASIC CHEMICAL MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing chemicals using basic processes, such as thermal cracking and distillation. Chemicals manufactured in this industry group are usually separate chemical elements or separate chemically-defined compounds.

32511 PETROCHEMICAL MANUFACTURING

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

- 1. manufacturing acyclic (i.e., aliphatic) hydrocarbons such as ethylene, propylene, and butylene made from refined petroleum or liquid hydrocarbon and/or
- 2. manufacturing cyclic aromatic hydrocarbons such as benzene, toluene, styrene, xylene, ethyl benzene, and cumene made from refined petroleum or liquid hydrocarbons.

325110 PETROCHEMICAL MANUFACTURING

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

- 1. manufacturing acyclic (i.e., aliphatic) hydrocarbons such as ethylene, propylene, and butylene made from refined petroleum or liquid hydrocarbon and/or
- 2. manufacturing cyclic aromatic hydrocarbons such as benzene, toluene, styrene, xylene, ethyl benzene, and cumene made from refined petroleum or liquid hydrocarbons.

32512 INDUSTRIAL GAS MANUFACTURING

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

325120 INDUSTRIAL GAS MANUFACTURING

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

32513 SYNTHETIC DYE AND PIGMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing synthetic organic and inorganic dyes and pigments, such as lakes and toners (except electrostatic and photographic).

325131 INORGANIC DYE AND PIGMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing inorganic dyes and pigments.

325132 SYNTHETIC ORGANIC DYE AND PIGMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing synthetic organic dyes and pigments, such as lakes and toners (except electrostatic and photographic).

32518 OTHER BASIC INORGANIC CHEMICAL MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing basic inorganic chemicals (except industrial gases and synthetic dyes and pigments).

325181 ALKALIES AND CHLORINE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing chlorine, sodium hydroxide (i.e., caustic soda), and other alkalies often using an electrolysis process.

325182 CARBON BLACK MANUFACTURING

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

325188 ALL OTHER BASIC INORGANIC CHEMICAL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing basic inorganic chemicals (except industrial gases, inorganic dyes and pigments, alkalies and chlorine, and carbon black).

32519 OTHER BASIC ORGANIC CHEMICAL MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing basic organic chemicals (except petrochemicals, industrial gases, and synthetic dyes and pigments).

325191 GUM AND WOOD CHEMICAL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in (1) distilling wood or gum into products, such as tall oil and wood distillates, and (2) manufacturing wood or gum chemicals, such as naval stores, natural tanning materials, charcoal briquettes, and charcoal (except activated).

325192 CYCLIC CRUDE AND INTERMEDIATE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in (1) distilling coal tars and/or (2) manufacturing cyclic crudes or, cyclic intermediates (i.e., hydrocarbons, except aromatic petrochemicals) from refined petroleum or natural gas.

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325193 ETHYL ALCOHOL MANUFACTURING

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

325199 ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing basic organic chemical products (except aromatic petrochemicals, industrial gases, synthetic organic dyes and pigments, gum and wood chemicals, cyclic crudes and intermediates, and ethyl alcohol).

3252 RESIN, SYNTHETIC RUBBER, AND ARTIFICIAL AND SYNTHETIC FIBERS AND FILAMENTS MANUFACTURING

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

- 1. Resin and synthetic rubber manufacturing and
- 2. Artificial and synthetic fibers and filaments manufacturing.

32521 RESIN AND SYNTHETIC RUBBER MANUFACTURING

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

- 1. manufacturing synthetic resins, plastics materials, and nonvulcanizable elastomers and mixing and blending resins on a custom basis;
- 2. manufacturing noncustomized synthetic resins; and
- 3. manufacturing synthetic rubber.

325211 PLASTICS MATERIAL AND RESIN MANUFACTURING

This U.S. industry comprises establishments primarily engaged in

- 1. manufacturing resins, plastics materials, and nonvulcanizable thermoplastic elastomers and mixing and blending resins on a custom basis and/or
- 2. manufacturing noncustomized synthetic resins.

325212 SYNTHETIC RUBBER MANUFACTURING

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

32522 ARTIFICIAL AND SYNTHETIC FIBERS AND FILAMENTS MANUFACTURING

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

- 1. manufacturing cellulosic (i.e., rayon and acetate) and noncellulosic (i.e., nylon, polyolefin, and polyester) fibers and filaments in the form of monofilament, filament yarn, staple, or tow or
- 2. manufacturing and texturing cellulosic and noncellulosic fibers and filaments.

325221 CELLULOSIC ORGANIC FIBER MANUFACTURING

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

- 1. manufacturing cellulosic (i.e., rayon and acetate) fibers and filaments in the form of monofilament, filament yarn, staple, or tow or
- 2. manufacturing and texturizing cellulosic fibers and filaments.

325222 NONCELLULOSIC ORGANIC FIBER MANUFACTURING

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

- 1. manufacturing noncellulosic (i.e., nylon, polyolefin, and polyester) fibers and filaments in the form of monofilament, filament yarn, staple, or tow, or
- 2. manufacturing and texturizing noncellulosic fibers and filaments.

3253 PESTICIDE, FERTILIZER, AND OTHER AGRICULTURAL CHEMICAL MANUFACTURING

This industry group includes establishments classified in one of the following:

- 1. Fertilizer manufacturing and/or
- 2. Pesticide and other agricultural chemical manufacturing.

32531 FERTILIZER MANUFACTURING

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

- 1. manufacturing nitrogenous or phosphatic fertilizer materials;
- 2. manufacturing fertilizers from sewage or animal waste;
- 3. manufacturing nitrogenous or phosphatic materials and mixing with other ingredients into fertilizers; and
- 4. mixing ingredients made elsewhere into fertilizers.

325311 NITROGENOUS FERTILIZER MANUFACTURING

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

- 1. manufacturing nitrogenous fertilizer materials and mixing ingredients into fertilizers;
- 2. manufacturing fertilizers from sewage or animal waste; and
- 3. manufacturing nitrogenous materials and mixing them into fertilizers.

325312 PHOSPHATIC FERTILIZER MANUFACTURING

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

- 1. manufacturing phosphatic fertilizer materials or
- 2. manufacturing phosphatic materials and mixing them into fertilizers.

325314 FERTILIZER (MIXING ONLY) MANUFACTURING

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

32532 PESTICIDE AND OTHER AGRICULTURAL CHEMICAL MANUFACTURING

This industry comprises establishments primarily engaged in the formulation and preparation of agricultural and household pest control chemicals (except fertilizers).

325320 PESTICIDE AND OTHER AGRICULTURAL CHEMICAL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in the formulation and preparation of agricultural and household pest control chemicals (except fertilizers).

3254 PHARMACEUTICAL AND MEDICINE MANUFACTURING

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

- 1. Manufacturing biological and medicinal products;
- 2. Processing (i.e., grading, grinding, and milling) botanical drugs and herbs;

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- 3. Isolating active medicinal principals from botanical drugs and herbs; and
- 4. Manufacturing pharmaceutical products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

32541 PHARMACEUTICAL AND MEDICINE MANUFACTURING

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

- 1. manufacturing biological and medicinal products;
- 2. processing (i.e., grading, grinding, and milling) botanical drugs and herbs;
- 3. isolating active medicinal principals from botanical drugs and herbs; and
- 4. manufacturing pharmaceutical products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

325411 MEDICINAL AND BOTANICAL MANUFACTURING

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

- 1. manufacturing uncompounded medicinal chemicals and their derivatives (i.e., generally for use by pharmaceutical preparation manufacturers) and/or
- 2. grading, grinding, and milling uncompounded botanicals.

325412 PHARMACEUTICAL PREPARATION MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing in-vivo diagnostic substances and pharmaceutical preparations (except biological) intended for internal and external consumption in dose forms, such as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

325413 IN-VITRO DIAGNOSTIC SUBSTANCE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing in-vitro (i.e., not taken internally) diagnostic substances, such as chemical, biological, or radioactive substances. The substances are used for diagnostic tests that are performed in test tubes, petri dishes, machines, and other diagnostic test-type devices.

325414 BIOLOGICAL PRODUCT (EXCEPT DIAGNOSTIC) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing vaccines, toxoids, blood fractions, and culture media of plant or animal origin (except diagnostic).

3255 PAINT, COATING, AND ADHESIVE MANUFACTURING

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

- 1. Paint and coating manufacturing and/or
- 2. Adhesive manufacturing.

32551 PAINT AND COATING MANUFACTURING

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

 mixing pigments, solvents, and binders into paints and other coatings, such as stains, varnishes, lacquers, enamels, shellacs, and water repellant 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:

- mixing pigments, solvents, and binders into paints and other coatings, such as stains, varnishes, lacquers, enamels, shellacs, and water repellant coatings for concrete and masonry and/or
- 2. manufacturing allied paint products, such as putties, paint and varnish removers, paint brush cleaners, and frit.

32552 ADHESIVE MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing adhesives, glues, and caulking compounds.

325520 ADHESIVE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing adhesives, glues, and caulking compounds.

3256 SOAP, CLEANING COMPOUND, AND TOILET PREPARATION MANUFACTURING

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

- 1. Soap and cleaning compound manufacturing and/or
- 2. Toilet preparation manufacturing.

32561 SOAP AND CLEANING COMPOUND MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing and packaging soap and other cleaning compounds, surface active agents, and textile and leather finishing agents used to reduce tension or speed the drying process.

325611 SOAP AND OTHER DETERGENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing and packaging soaps and other detergents, such as laundry detergents; dishwashing detergents; toothpaste gels and tooth powders; and natural glycerin.

325612 POLISH AND OTHER SANITATION GOOD MANUFACTURING

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

325613 SURFACE ACTIVE AGENT MANUFACTURING

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

- 1. manufacturing bulk surface active agents for use as wetting agents, emulsifiers, and penetrants, and/or
- 2. manufacturing textiles and leather finishing agents used to reduce tension or speed the drying process.

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32562 TOILET PREPARATION MANUFACTURING

This industry comprises establishments primarily engaged in preparing, blending, compounding, and packaging toilet preparations, such as perfumes, shaving preparations, hair preparations, face creams, lotions (including sunscreens), and other cosmetic preparations.

325620 TOILET PREPARATION MANUFACTURING

This U.S. industry comprises establishments primarily engaged in preparing, blending, compounding, and packaging toilet preparations, such as perfumes, shaving preparations, hair preparations, face creams, lotions (including sunscreens), and other cosmetic preparations.

3259 OTHER CHEMICAL PRODUCT AND PREPARATION MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals; resins, synthetic rubber, cellulosic and noncellulosic fibers and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings, and adhesives; soaps and cleaning compounds; and toilet preparations).

32591 PRINTING INK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing printing and inkjet inks and inkjet cartridges.

325910 PRINTING INK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing printing and inkjet inks and inkjet cartridges.

32592 EXPLOSIVES MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing explosives.

325920 EXPLOSIVES MANUFACTURING

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

32599 ALL OTHER CHEMICAL PRODUCT AND PREPARATION MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals, resins, and synthetic rubber; cellulosic and noncellulosic fibers and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings, and adhesives; and soaps, cleaning compounds, and toilet preparations; printing inks; and explosives).

325991 CUSTOM COMPOUNDING OF PURCHASED RESINS

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

- 1. custom mixing and blending plastics resins made elsewhere or
- 2. reformulating plastics resins from recycled plastics products.

325992 PHOTOGRAPHIC FILM, PAPER, PLATE, AND CHEMICAL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing sensitized film, sensitized paper, sensitized cloth, sensitized plates, toners (i.e., for photocopiers, laser printers, and similar electrostatic printing devices), toner cartridges, and photographic chemicals.

325998 ALL OTHER MISCELLANEOUS CHEMICAL PRODUCT AND PREPARATION MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals, resins, synthetic rubber; cellulosic and noncellulosic fiber and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings and adhesives; soap, cleaning compounds, and toilet preparations; printing inks; explosives; custom compounding of purchased resins; and photographic films, papers, plates, and chemicals).

326 PLASTICS AND RUBBER PRODUCTS MANUFACTURING

Industries in the Plastics and Rubber Products Manufacturing subsector make goods by processing plastics materials and raw rubber. The core technology employed by establishments in this subsector is that of plastics or rubber product production. Plastics and rubber are combined in the same subsector because plastics are increasingly being used as a substitute for rubber; however the subsector is generally restricted to the production of products made of just one material, either solely plastics or rubber.

Many manufacturing activities use plastics or rubber, for example the manufacture of footwear, or furniture. Typically, the production process of these products involves more than one material. In these cases, technologies that allow disparate materials to be formed and combined are of central importance in describing the manufacturing activity. In NAICS, such activities (the footwear and furniture manufacturing) are not classified in the Plastics and Rubber Products Manufacturing subsector because the core technologies for these activities are diverse and involve multiple materials.

Within the Plastics and Rubber Products Manufacturing subsector, a distinction is made between plastics and rubber products at the industry group level, although it is not a rigid distinction, as can be seen from the definition of Industry 32622, Rubber and Plastics Hoses and Belting Manufacturing. As materials technology progresses, plastics are increasingly being used as a substitute for rubber; and eventually, the distinction may disappear as a basis for establishment classification.

In keeping with the core technology focus of plastics, lamination of plastics film to plastics film as well as the production of bags from plastics only is classified in this subsector. Lamination and bag production involving plastics and materials other than plastics are classified in the NAICS Subsector 322, Paper Manufacturing.

3261 PLASTICS PRODUCT MANUFACTURING

This industry group comprises establishments primarily engaged in processing new or spent (i.e., recycled) plastics resins into intermediate or final products, using such processes as compression molding; extrusion molding; injection molding; blow molding; and casting. Within most of these industries, the production process is such that a wide variety of products can be made.

32611 PLASTICS PACKAGING MATERIALS AND UNLAMINATED FILM AND SHEET MANUFACTURING

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

- 1. converting plastics resins into unsupported plastics film and sheet and/or
- 2. forming, coating or laminating plastics film and sheet into plastics bags.

326111 PLASTICS BAG MANUFACTURING

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

1. converting plastics resins into plastics bags or

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2. forming, coating, or laminating plastics film and sheet into single wall or multiwall plastics bags.

Establishments in this industry may print on the bags they manufacture.

326112 PLASTICS PACKAGING FILM AND SHEET (INCLUDING LAMINATED) MANUFACTURING

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

326113 UNLAMINATED PLASTICS FILM AND SHEET (EXCEPT PACKAGING) MANUFACTURING

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

326150 URETHANE AND OTHER FOAM PRODUCT (EXCEPT POLYSTYRENE) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing plastics foam products (except polystyrene).

32616 PLASTICS BOTTLE MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing plastics bottles.

326160 PLASTICS BOTTLE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing plastics bottles.

32619 OTHER PLASTICS PRODUCT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing resilient floor covering and other plastics products (except film, sheet, bags, profile shapes, pipes, pipe fittings, laminates, foam products, and bottles).

326191 PLASTICS PLUMBING FIXTURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing plastics or fiber-glass plumbing fixtures. Examples of products made by these establishments are plastics or fiber-glass bathtubs, hot tubs, portable toilets, and shower stalls.

326192 RESILIENT FLOOR COVERING MANUFACTURING

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

326199 ALL OTHER PLASTICS PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing plastics products (except film, sheet, bags, profile shapes, pipes, pipe fittings, laminates, foam products, bottles, plumbing fixtures, and resilient floor coverings).

3262 RUBBER PRODUCT MANUFACTURING

This industry group comprises establishments primarily engaged in processing natural, and synthetic or reclaimed rubber materials into intermediate or final products using processes such as vulcanizing, cementing, molding, extruding, and lathe-cutting.

32621 TIRE MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing tires and inner tubes from natural and synthetic rubber and retreading or rebuilding tires.

326211 TIRE MANUFACTURING (EXCEPT RETREADING)

This U.S. industry comprises establishments primarily engaged in manufacturing tires and inner tubes from natural and synthetic rubber.

326212 TIRE RETREADING

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

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32622 RUBBER AND PLASTICS HOSES AND BELTING MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing rubber hose and/or plastics (reinforced) hose and belting from natural and synthetic rubber and/or plastics resins. Establishments manufacturing garden hoses from purchased hose are included in this industry.

326220 RUBBER AND PLASTICS HOSES AND BELTING MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing rubber hose and/or plastics (reinforced) hose and belting from natural and synthetic rubber and/or plastics resins. Establishments manufacturing garden hoses from purchased hose are included in this industry.

32629 OTHER RUBBER PRODUCT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing rubber products (except tires, hoses, and belting) from natural and synthetic rubber.

326291 RUBBER PRODUCT MANUFACTURING FOR MECHANICAL USE

This U.S. industry comprises establishments primarily engaged in molding, extruding, or lathecutting rubber to manufacture rubber goods (except tubing) for mechanical applications. Products of this industry are generally parts for motor vehicles, machinery, and equipment.

326299 ALL OTHER RUBBER PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing rubber products (except tires; hoses and belting; and molded, extruded, and lathe-cut rubber goods for mechanical applications) from natural and synthetic rubber.

327 NONMETALLIC MINERAL PRODUCT MANUFACTURING

The Nonmetallic Mineral Product Manufacturing subsector transforms mined or quarried nonmetallic minerals, such as sand, gravel, stone, clay, and refractory materials, into products for intermediate or final consumption. Processes used include grinding, mixing, cutting, shaping, and honing. Heat often is used in the process and chemicals are frequently mixed to change the composition, purity, and chemical properties for the intended product. For example, glass is produced by heating silica sand to the melting point (sometimes combined with cullet or recycled glass) and then drawn, floated, or blow molded to the desired shape or thickness. Refractory materials are heated and then formed into bricks or other shapes for use in industrial applications. The Nonmetallic Mineral Product Manufacturing subsector includes establishments that manufacture products, such as bricks, refractories, ceramic products, and glass and glass products, such as plate glass and containers. Also included are cement and concrete products, lime, gypsum and other nonmetallic mineral products including abrasive products, ceramic plumbing fixtures, statuary, cut stone products, and mineral wool. The products are used in a wide range of activities from construction and heavy and light manufacturing to articles for personal use.

Mining, beneficiating, and manufacturing activities often occur in a single location. Separate receipts will be collected for these activities whenever possible. When receipts cannot be broken out between mining and manufacturing, establishments that mine or quarry nonmetallic minerals, beneficiate the nonmetallic minerals and further process the nonmetallic minerals into a more finished manufactured product are classified based on the primary activity of the establishment. A mine that manufactures a small amount of finished products will be classified in Sector 21, Mining. An establishment that mines whose primary output is a more-finished manufactured product will be classified in the Manufacturing Sector.

Excluded from the Nonmetallic Mineral Product Manufacturing subsector are establishments that primarily beneficiate mined nonmetallic minerals. Beneficiation is the process whereby the extracted material is reduced to particles that can be separated into mineral and waste, the former suitable for further processing or direct use. Beneficiation establishments are included in Sector 21, Mining.

3271 CLAY PRODUCT AND REFRACTORY MANUFACTURING

This industry group comprises establishments primarily engaged in shaping, molding, glazing, and firing pottery, ceramics, and plumbing fixtures made entirely or partly of clay or other ceramic materials and/or shaping, molding, baking, burning, or hardening clay refractories, non-clay refractories, ceramic tile, structural clay tile, brick, and other structural clay building materials.

32711 POTTERY, CERAMICS, AND PLUMBING FIXTURE MANUFACTURING

This industry comprises establishments primarily engaged in shaping, molding, glazing, and firing pottery, ceramics, and plumbing fixtures made entirely or partly of clay or other ceramic materials.

327111 VITREOUS CHINA PLUMBING FIXTURE AND CHINA AND EARTHENWARE BATHROOM ACCESSORIES MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing vitreous china plumbing fixtures and china and earthenware bathroom accessories, such as faucet handles, towel bars, and soap dishes.

327112 VITREOUS CHINA, FINE EARTHENWARE, AND OTHER POTTERY PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing table and kitchen articles, art and ornamental items, and similar vitreous china, fine earthenware, stoneware, coarse earthenware, and pottery products.

327113 PORCELAIN ELECTRICAL SUPPLY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing porcelain electrical insulators, molded porcelain parts for electrical devices, ferrite or ceramic magnets, and electronic and electrical supplies from nonmetallic minerals, such as clay and ceramic materials.

32712 CLAY BUILDING MATERIAL AND REFRACTORIES MANUFACTURING

This industry comprises establishments primarily engaged in shaping, molding, baking, burning, or hardening clay refractories, nonclay refractories, ceramic tile, structural clay tile, brick, and other structural clay building materials.

327121 BRICK AND STRUCTURAL CLAY TILE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing brick and structural clay tiles.

327122 CERAMIC WALL AND FLOOR TILE MANUFACTURING

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

327123 OTHER STRUCTURAL CLAY PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing clay sewer pipe, drain tile, flue lining tile, architectural terra-cotta, and other structural clay products.

327124 CLAY REFRACTORY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing clay refractory, mortar, brick, block, tile, and fabricated clay refractories, such as melting pots. A refractory is a material that will retain its shape and chemical identity when subjected to high temperatures and is used in applications that require extreme resistance to heat, such as furnace linings.

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327125 NONCLAY REFRACTORY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing nonclay refractory, mortar, brick, block, tile, and fabricated nonclay refractories such as graphite, magnesite, silica, or alumina crucibles. A refractory is a material that will retain its shape and chemical identity when subjected to high temperatures and is used in applications that require extreme resistance to heat, such as furnace linings.

3272 GLASS AND GLASS PRODUCT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing glass and/or glass products. Establishments in this industry may manufacture glass and/or glass products by melting silica sand or cullet, or purchasing glass.

32721 GLASS AND GLASS PRODUCT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing glass and/or glass products. Establishments in this industry may manufacture glass and/or glass products by melting silica sand or cullet, or purchasing glass.

327211 FLAT GLASS MANUFACTURING

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

- 1. manufacturing flat glass by melting silica sand or cullet; or
- 2. manufacturing both flat glass and laminated glass by melting silica sand or cullet.

327212 OTHER PRESSED AND BLOWN GLASS AND GLASSWARE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing glass by melting silica sand or cullet and making pressed, blown, or shaped glass or glassware (except glass packaging containers).

327213 GLASS CONTAINER MANUFACTURING

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

327215 GLASS PRODUCT MANUFACTURING MADE OF PURCHASED GLASS

This U.S. industry comprises establishments primarily engaged in coating, laminating, tempering, or shaping purchased glass.

3273 CEMENT AND CONCRETE PRODUCT MANUFACTURING

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

- 1. Cement manufacturing;
- 2. Ready-mix concrete manufacturing;
- 3. Concrete pipe, brick, and block manufacturing; and/or
- 4. Other concrete product manufacturing.

32731 CEMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing portland, natural, masonry, pozzalanic, and other hydraulic cements. Cement manufacturing establishments may calcine earths or mine, quarry, manufacture, or purchase lime.

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. Readymix concrete manufacturing establishments may mine, quarry, or purchase sand and gravel.

32733 CONCRETE PIPE, BRICK, AND BLOCK MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing concrete pipe, brick, and block.

327331 CONCRETE BLOCK AND BRICK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing concrete block and brick.

327332 CONCRETE PIPE MANUFACTURING

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

32739 OTHER CONCRETE PRODUCT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing concrete products (except block, brick, and pipe).

327390 OTHER CONCRETE PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing concrete products (except block, brick, and pipe).

3274 LIME AND GYPSUM PRODUCT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing lime from calcitic limestone, dolomitic limestone, or other calcareous materials, such as coral, chalk, and shells and/or gypsum products such as wallboard, plaster, plasterboard, molding, ornamental moldings, statuary, and architectural plaster work.

32741 LIME MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing lime from calcitic limestone, dolomitic limestone, or other calcareous materials, such as coral, chalk, and shells. Lime manufacturing establishments may mine, quarry, collect, or purchase the sources of calcium carbonate.

327410 LIME MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing lime from calcitic limestone, dolomitic limestone, or other calcareous materials, such as coral, chalk, and shells. Lime manufacturing establishments may mine, quarry, collect, or purchase the sources of calcium carbonate.

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32742 GYPSUM PRODUCT MANUFACTURING

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

327420 GYPSUM PRODUCT MANUFACTURING

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

3279 OTHER NONMETALLIC MINERAL PRODUCT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except clay products, refractory products, glass products, cement and concrete products, lime, and gypsum products).

32791 ABRASIVE PRODUCT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing abrasive grinding wheels of natural or synthetic materials, abrasive-coated products, and other abrasive products.

327910 ABRASIVE PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing abrasive grinding wheels of natural or synthetic materials, abrasive-coated products, and other abrasive products.

32799 ALL OTHER NONMETALLIC MINERAL PRODUCT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except pottery, ceramics, and plumbing fixtures; clay building materials and refractories; glass and glass products; cement; ready-mix concrete; concrete products; lime; gypsum products; and abrasive products).

327991 CUT STONE AND STONE PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in cutting, shaping, and finishing granite, marble, limestone, slate, and other stone for building and miscellaneous uses. Stone product manufacturing establishments may mine, quarry, or purchase stone.

327992 GROUND OR TREATED MINERAL AND EARTH MANUFACTURING

This U.S. industry comprises establishments primarily engaged in calcining, dead burning, or otherwise processing beyond beneficiation, clays, ceramic and refractory minerals, barite, and miscellaneous nonmetallic minerals.

327993 MINERAL WOOL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing mineral wool and mineral wool (i.e., fiberglass) insulation products made of such siliceous materials as rock, slag, and glass or combinations thereof.

327999 ALL OTHER MISCELLANEOUS NONMETALLIC MINERAL PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except pottery, ceramics, and plumbing fixtures; clay building materials and refractories; glass and glass products; cement; ready-mix concrete; concrete products; lime; gypsum products; abrasive products; cut stone and stone products; ground and treated minerals and earth; and mineral wool).

331 PRIMARY METAL MANUFACTURING

Industries in the Primary Metal Manufacturing subsector smelt and/or refine ferrous and nonferrous metals from ore, pig or scrap, using electrometallurgical and other process metallurgical techniques. Establishments in this subsector also manufacture metal alloys and superalloys by introducing other chemical elements to pure metals. The output of smelting and refining, usually in ingot form, is used in rolling, drawing, and extruding operations to make sheet, strip, bar, rod, or wire, and in molten form to make castings and other basic metal products.

Primary manufacturing of ferrous and nonferrous metals begins with ore or concentrate as the primary input. Establishments manufacturing primary metals from ore and/or concentrate remain classified in the primary smelting, primary refining, or iron and steel mill industries regardless of the form of their output. Establishments primarily engaged in secondary smelting and/or secondary refining recover ferrous and nonferrous metals from scrap and/or dross. The output of the secondary smelting and/or secondary refining industries is limited to shapes, such as ingot or billet, that will be further processed. Recovery of metals from scrap often occurs in establishments that are primarily engaged in activities, such as rolling, drawing, extruding, or similar processes.

Excluded from the Primary Metal Manufacturing subsector are establishments primarily engaged in manufacturing ferrous and nonferrous forgings (except ferrous forgings made in steel mills) and stampings. Although forging, stamping, and casting are all methods used to make metal shapes, forging and stamping do not use molten metals and are included in Subsector 332, Fabricated Metal Product Manufacturing. Establishments primarily engaged in operating coke ovens are classified in Industry 32419, Other Petroleum and Coal Products Manufacturing.

3311 IRON AND STEEL MILLS AND FERROALLOY MANUFACTURING

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

- 1. Direct reduction of iron ore;
- 2. Manufacturing pig iron in molten or solid form;
- 3. Converting pig iron into steel;
- 4. Manufacturing ferroalloys;
- 5. Making steel;
- 6. Making steel and manufacturing shapes (e.g., bar, plate, rod, sheet, strip, and wire); and
- 7. Making steel and forming pipe and tube.

33111 IRON AND STEEL MILLS AND FERROALLOY MANUFACTURING

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.

331111 IRON AND STEEL MILLS

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

1. direct reduction of iron ore;

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- 2. manufacturing pig iron in molten or solid form;
- 3. converting pig iron into steel;
- 4. making steel;
- 5. making steel and manufacturing shapes (e.g., bar, plate, rod, sheet, strip, wire); and
- 6. making steel and forming tube and pipe.

331112 ELECTROMETALLURGICAL FERROALLOY PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electrometallurgical ferroalloys. Ferroalloys add critical elements, such as silicon and manganese for carbon steel and chromium, vanadium, tungsten, titanium, and molybdenum for low- and high-alloy metals. Ferroalloys include iron-rich alloys and more pure forms of elements added during the steel manufacturing process that alter or improve the characteristics of the metal being made.

3312 STEEL PRODUCT MANUFACTURING FROM PURCHASED STEEL

This industry group comprises establishments primarily engaged in manufacturing iron and steel tube and pipe; drawing steel wire; and rolling or drawing shapes from purchased iron or steel.

33121 IRON AND STEEL PIPE AND TUBE MANUFACTURING FROM PURCHASED STEEL

This industry comprises establishments primarily engaged in manufacturing welded, riveted, or seamless pipe and tube from purchased iron or steel.

331210 IRON AND STEEL PIPE AND TUBE MANUFACTURING FROM PURCHASED STEEL

This U.S. industry comprises establishments primarily engaged in manufacturing welded, riveted, or seamless pipe and tube from purchased iron or steel.

33122 ROLLING AND DRAWING OF PURCHASED STEEL

This industry comprises establishments primarily engaged in rolling and/or drawing steel shapes, such as plate, sheet, strip, rod, and bar, from purchased steel.

331221 ROLLED STEEL SHAPE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in rolling or drawing shapes (except wire), such as plate, sheet, strip, rod, and bar, from purchased steel.

331222 STEEL WIRE DRAWING

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

3313 ALUMINA AND ALUMINUM PRODUCTION AND PROCESSING

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

- 1. Refining alumina;
- 2. Making (i.e., the primary production) aluminum from alumina;
- 3. Recovering aluminum from scrap or dross;
- 4. Alloying purchased aluminum; and
- 5. Manufacturing aluminum primary forms (e.g., bar, foil, pipe, plate, rod, sheet, tube, and wire).

33131 ALUMINA AND ALUMINUM PRODUCTION AND PROCESSING

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

- 1. refining alumina;
- 2. making (i.e., the primary production) aluminum from alumina;
- 3. recovering aluminum from scrap or dross;
- 4. alloying purchased aluminum; and
- 5. manufacturing aluminum primary forms (e.g., bar, foil, pipe, plate, rod, sheet, tube, and wire).

331311 ALUMINA REFINING

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

331312 PRIMARY ALUMINUM PRODUCTION

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

- 1. making aluminum from alumina and/or
- 2. making aluminum from alumina and rolling, drawing, extruding, or casting the aluminum they make into primary forms (e.g., bar, billet, ingot, plate, rod, sheet, and strip).

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

331314 SECONDARY SMELTING AND ALLOYING OF ALUMINUM

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

- 1. recovering aluminum and aluminum alloys from scrap and/or dross (i.e., secondary smelting) and making billet or ingot (except by rolling) and/or
- 2. manufacturing alloys, powder, paste, or flake from purchased aluminum.

331315 ALUMINUM SHEET, PLATE, AND FOIL MANUFACTURING

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

- 1. flat rolling or continuous casting sheet, plate, foil, and welded tube from purchased aluminum and/or
- 2. recovering aluminum from scrap and flat rolling or continuous casting sheet, plate, foil, and welded tube in integrated mills.

331316 ALUMINUM EXTRUDED PRODUCT MANUFACTURING

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

- 1. extruding aluminum bar, pipe, and tube blooms or extruding or drawing tube from purchased aluminum and/or
- 2. recovering aluminum from scrap and extruding bar, pipe, and tube blooms or drawing tube in integrated mills.

331319 OTHER ALUMINUM ROLLING AND DRAWING

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

- rolling, drawing, or extruding shapes (except flat rolled sheet, plate, foil, and welded tube; extruded rod, bar, pipe, and tube blooms; and drawn or extruded tube) from purchased aluminum and/or
- 2. recovering aluminum from scrap and rolling, drawing or extruding shapes (except flat rolled sheet, plate, foil, and welded tube; extruded rod, bar, pipe, and tube blooms; and drawn or extruded tube) in integrated mills.

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3314 NONFERROUS METAL (EXCEPT ALUMINUM) PRODUCTION AND PROCESSING

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

- 1. Nonferrous metal (except aluminum) smelting and refining;
- 2. Copper rolling, drawing, extruding, and alloying; and/or
- 3. Nonferrous metal (except copper and aluminum) rolling, drawing, extruding, and alloying.

33141 NONFERROUS METAL (EXCEPT ALUMINUM) SMELTING AND REFINING

This industry comprises establishments primarily engaged in:

- 1. smelting ores into nonferrous metals and/or
- the primary refining of nonferrous metals (except aluminum) using electrolytic or other processes.

331411 PRIMARY SMELTING AND REFINING OF COPPER

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

- 1. smelting copper ore and/or
- 2. the primary refining of copper by electrolytic methods or other processes.

Establishments in this industry make primary copper and copper-based alloys, such as brass and bronze, from ore or concentrates.

331419 PRIMARY SMELTING AND REFINING OF NONFERROUS METAL (EXCEPT COPPER AND ALUMINUM)

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

- 1. making (primary production) nonferrous metals by smelting ore and/or
- 2. the primary refining of nonferrous metals by electrolytic methods or other processes.

33142 COPPER ROLLING, DRAWING, EXTRUDING, AND ALLOYING

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

- 1. recovering copper or copper alloys from scraps;
- 2. alloying purchased copper;
- 3. rolling, drawing, or extruding shapes, (e.g., bar, plate, sheet, strip, tube, wire) from purchased copper; and
- 4. recovering copper or copper alloys from scrap and rolling drawing, or extruding shapes (e.g., bar, plate, sheet, strip, tube, wire).

331421 COPPER ROLLING, DRAWING, AND EXTRUDING

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

- 1. rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube (except bare or insulated copper communication or energy wire)) from purchased copper and/or
- 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.

331491 NONFERROUS METAL (EXCEPT COPPER AND ALUMINUM) ROLLING, DRAWING, AND EXTRUDING

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

- 1. rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube) from purchased nonferrous metals and/or
- 2. recovering nonferrous metals from scrap and rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, and tube) in integrated mills.

331492 SECONDARY SMELTING, REFINING, AND ALLOYING OF NONFERROUS METAL (EXCEPT COPPER AND ALUMINUM)

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

- 1. alloying purchased nonferrous metals and/or
- 2. recovering nonferrous metals from scrap.

Establishments in this industry make primary forms (e.g., bar, billet, bloom, cake, ingot, slab, slug, and wire) using smelting or refining processes.

3315 FOUNDRIES

This industry group comprises establishments primarily engaged in pouring molten metal into molds or dies to form castings. Establishments making castings and further manufacturing, such as machining or assembling, a specific manufactured product are classified in the industry of the finished product. Foundries may perform operations, such as cleaning and deburring, on the castings they manufacture. More involved processes, such as tapping, threading, milling, or machining to tight tolerances, that transform castings into more finished products are classified elsewhere in the manufacturing sector based on the product being made.

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Establishments in this industry group make castings from purchased metals or in integrated secondary smelting and casting facilities. When the production of primary metals is combined with making castings, the establishment is classified in 331 with the primary metal being made.

33151 FERROUS METAL FOUNDRIES

This industry comprises establishments primarily engaged in pouring molten iron and steel into molds of a desired shape to made castings. Establishments in this industry purchase iron and steel made in other establishments.

331511 IRON FOUNDRIES

This U.S. industry comprises establishments primarily engaged in pouring molten pig iron or iron alloys into molds to manufacture castings (e.g., cast iron manhole covers, cast iron pipe, cast iron skillets). Establishments in this industry purchase iron made in other establishments.

331512 STEEL INVESTMENT FOUNDRIES

This U.S. industry comprises establishments primarily engaged in manufacturing steel investment castings. Investment molds are formed by covering a wax shape with a refractory slurry. After the refractory slurry hardens, the wax is melted, leaving a seamless mold. Investment molds provide highly detailed, consistent castings. Establishments in this industry purchase steel made in other establishments.

331513 STEEL FOUNDRIES (EXCEPT INVESTMENT)

This U.S. industry comprises establishments primarily engaged in manufacturing steel castings (except steel investment castings). Establishments in this industry purchase steel made in other establishments.

33152 NONFERROUS METAL FOUNDRIES

This industry comprises establishments primarily engaged in pouring and/or introducing molten nonferrous metal, under high pressure, into metal molds or dies to manufacture castings. Establishments in this industry purchase nonferrous metals made in other establishments.

331521 ALUMINUM DIE-CASTING FOUNDRIES

This U.S. industry comprises establishments primarily engaged in introducing molten aluminum, under high pressure, into molds or dies to make aluminum die-castings. Establishments in this industry purchase aluminum made in other establishments.

331522 NONFERROUS (EXCEPT ALUMINUM) DIE-CASTING FOUNDRIES

This U.S. industry comprises establishments primarily engaged in introducing molten nonferrous metal (except aluminum), under high pressure, into molds to make nonferrous metal die-castings. Establishments in this industry purchase nonferrous metals made in other establishments.

331524 ALUMINUM FOUNDRIES (EXCEPT DIE-CASTING)

This U.S. industry comprises establishments primarily engaged in pouring molten aluminum into molds to manufacture aluminum castings. Establishments in this industry purchase aluminum made in other establishments.

331525 COPPER FOUNDRIES (EXCEPT DIE-CASTING)

This U.S. industry comprises establishments primarily engaged in pouring molten copper into molds to manufacture copper castings. Establishments in this industry purchase copper made in other establishments.

331528 OTHER NONFERROUS FOUNDRIES (EXCEPT DIE-CASTING)

This U.S. industry comprises establishments primarily engaged in pouring molten nonferrous metals (except aluminum and copper) into molds to manufacture nonferrous castings (except aluminum die-castings, nonferrous (except aluminum) die-castings, aluminum castings, and copper castings). Establishments in this industry purchase nonferrous metals, such as nickel, lead, and zinc, made in other establishments.

332 FABRICATED METAL PRODUCT MANUFACTURING

Industries in the Fabricated Metal Product Manufacturing subsector transform metal into intermediate or end products, other than machinery, computers and electronics, and metal furniture or treating metals and metal formed products fabricated elsewhere. Important fabricated metal processes are forging, stamping, bending, forming, and machining, used to shape individual pieces of metal; and other processes, such as welding and assembling, used to join separate parts together. Establishments in this subsector may use one of these processes or a combination of these processes.

The NAICS structure for this subsector distinguishes the forging and stamping processes in a single industry. The remaining industries, in the subsector, group establishments based on similar combinations of processes used to make products.

The manufacturing performed in the Fabricated Metal Product Manufacturing subsector begins with manufactured metal shapes. The establishments in this sector further fabricate the purchased metal shapes into a product. For instance, the Spring and Wire Product Manufacturing industry starts with wire and fabricates such items.

Within manufacturing there are other establishments that make the same products made by this subsector; only these establishments begin production further back in the production process. These establishments have a more integrated operation. For instance, one establishment may manufacture steel, draw it into wire, and make wire products in the same establishment. Such operations are classified in the Primary Metal Manufacturing subsector.

3321 FORGING AND STAMPING

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

- 1. Manufacturing forgings from purchased metals;
- 2. Manufacturing metal custom roll forming products;
- 3. Manufacturing metal stamped and spun products (except automotive, cans, and coins); and
- 4. Manufacturing powder metallurgy products.

Establishments making metal forgings, metal stampings, and metal spun products and further manufacturing (e.g., machining and assembling) a specific manufactured product are classified in the industry of the finished product. Metal forging, metal stamping, and metal spun products establishments may perform surface finishing operations, such as cleaning and deburring, on the products they manufacture.

33211 FORGING AND STAMPING

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

- 1. manufacturing forgings from purchased metals;
- 2. manufacturing metal custom roll forming products;
- 3. manufacturing metal stamped and spun products (except automotive, cans, and coins); and
- 4. manufacturing powder metallurgy products.

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Establishments making metal forgings, metal stampings, and metal spun products and further manufacturing (e.g., machining and assembling) a specific manufactured product are classified in the industry of the finished product. Metal forging, metal stamping, and metal spun products establishments may perform surface finishing operations, such as cleaning and deburring, on the products they manufacture.

332111 IRON AND STEEL FORGING

This U.S. industry comprises establishments primarily engaged in manufacturing iron and steel forgings from purchased iron and steel by hammering mill shapes. Establishments making iron and steel forgings and further manufacturing (e.g., machining, assembling) a specific manufactured product are classified in the industry of the finished product. Iron and steel forging establishments may perform surface finishing operations, such as cleaning and deburring, on the forgings they manufacture.

332112 NONFERROUS FORGING

This U.S. industry comprises establishments primarily engaged in manufacturing nonferrous forgings from purchased nonferrous metals by hammering mill shapes. Establishments making nonferrous forgings and further manufacturing (e.g., machining, assembling) a specific manufactured product are classified in the industry of the finished product. Nonferrous forging establishments may perform surface finishing operations, such as cleaning and deburring, on the forgings they manufacture.

332114 CUSTOM ROLL FORMING

This U.S. industry comprises establishments primarily engaged in custom roll forming metal products by use of rotary motion of rolls with various contours to bend or shape the products.

332115 CROWN AND CLOSURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in stamping metal crowns and closures, such as bottle caps and home canning lids and rings.

332116 METAL STAMPING

This U.S. industry comprises establishments primarily engaged in manufacturing unfinished metal stampings and spinning unfinished metal products (except crowns, cans, closures, automotive, and coins). Establishments making metal stampings and metal spun products and further manufacturing (e.g., machining, assembling) a specific product are classified in the industry of the finished product. Metal stamping and metal spun products establishments may perform surface finishing operations, such as cleaning and deburring, on the products they manufacture.

332117 POWDER METALLURGY PART MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing powder metallurgy products by compacting them in a shaped die and sintering. Establishments in this industry generally make a wide range of parts on a job or order basis.

3322 CUTLERY AND HANDTOOL MANUFACTURING

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

- 1. Manufacturing nonprecious and precious plated metal cutlery and flatware;
- 2. Manufacturing nonpowered hand and edge tools;
- 3. Manufacturing nonpowered handsaws;
- 4. Manufacturing saw blades, all types (including those for sawing machines); and

5. Manufacturing metal kitchen utensils (except cutting-type) and pots and pans (except those manufactured by casting (e.g., cast iron skillets) or stamped without further fabrication).

33221 CUTLERY AND HANDTOOL MANUFACTURING

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

- 1. manufacturing nonprecious and precious plated metal cutlery and flatware;
- 2. manufacturing nonpowered hand and edge tools;
- 3. manufacturing nonpowered handsaws;
- 4. manufacturing saw blades, all types (including those for sawing machines); and
- 5. manufacturing metal kitchen utensils (except cutting-type) and pots and pans (except those manufactured by casting (e.g., cast iron skillets) or stamped without further fabrication).

332211 CUTLERY AND FLATWARE (EXCEPT PRECIOUS) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing nonprecious and precious plated metal cutlery and flatware.

332212 HAND AND EDGE TOOL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing nonpowered hand and edge tools (except saws).

332213 SAW BLADE AND HANDSAW MANUFACTURING

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

- 1. manufacturing nonpowered handsaws and/or
- 2. manufacturing saw blades, all types (including those for power sawing machines).

332214 KITCHEN UTENSIL, POT, AND PAN MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal kitchen utensils (except cutting-type), pots, and pans (except those manufactured by casting (e.g., cast iron skillets) or stamped without further fabrication).

3323 ARCHITECTURAL AND STRUCTURAL METALS MANUFACTURING

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

- 1. Plate work and fabricated structural product manufacturing and
- 2. Ornamental and architectural metal products manufacturing.

33231 PLATE WORK AND FABRICATED STRUCTURAL PRODUCT MANUFACTURING

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

- 1. prefabricated metal buildings, panels and sections;
- 2. structural metal products; and
- 3. metal plate work products.

332311 PREFABRICATED METAL BUILDING AND COMPONENT MANUFACTURING

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

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332312 FABRICATED STRUCTURAL METAL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in fabricating structural metal products, such as concrete reinforcing bars and fabricated bar joists.

332313 PLATE WORK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated metal plate work by cutting, punching, bending, shaping, and welding purchased metal plate.

33232 ORNAMENTAL AND ARCHITECTURAL METAL PRODUCTS MANUFACTURING

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

- 1. metal framed windows (i.e., typically using purchased glass) and metal doors;
- 2. sheet metal work; and
- 3. ornamental and architectural metal products.

332321 METAL WINDOW AND DOOR MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal framed windows (typically using purchased glass) and metal doors. Examples of products made by these establishments are: metal door frames; metal framed window and door screens; and metal molding and trim (except automotive).

332322 SHEET METAL WORK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing sheet metal work (except stampings).

332323 ORNAMENTAL AND ARCHITECTURAL METAL WORK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing ornamental and architectural metal work, such as staircases, metal open steel flooring, fire escapes, railings, and scaffolding.

3324 BOILER, TANK, AND SHIPPING CONTAINER MANUFACTURING

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

- 1. Power boiler and heat exchanger manufacturing;
- 2. Metal tank (heavy gauge) manufacturing; and
- 3. Metal can, box, and other metal container (light gauge) manufacturing.

33241 POWER BOILER AND HEAT EXCHANGER MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing power boilers and heat exchangers. Establishments in this industry may perform installation in addition to manufacturing power boilers and heat exchangers.

332410 POWER BOILER AND HEAT EXCHANGER MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing power boilers and heat exchangers. Establishments in this industry may perform installation in addition to manufacturing power boilers and heat exchangers.

33242 METAL TANK (HEAVY GAUGE) MANUFACTURING

This industry comprises establishments primarily engaged in cutting, forming, and joining heavy gauge metal to manufacture tanks, vessels, and other containers.

332420 METAL TANK (HEAVY GAUGE) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in cutting, forming, and joining heavy gauge metal to manufacture tanks, vessels, and other containers.

33243 METAL CAN, BOX, AND OTHER METAL CONTAINER (LIGHT GAUGE) MANUFACTURING

This industry comprises establishments primarily engaged in forming light gauge metal containers.

332431 METAL CAN MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal cans, lids, and ends.

332439 OTHER METAL CONTAINER MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal (light gauge) containers (except cans).

3325 HARDWARE MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated and time locks).

33251 HARDWARE MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated and time locks).

332510 HARDWARE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated and time locks).

3326 SPRING AND WIRE PRODUCT MANUFACTURING

This industry group comprises establishments primarily engaged in:

- 1. Manufacturing steel springs by forming, such as cutting, bending, and heat winding, metal rod or strip stock, and/or
- 2. Manufacturing wire springs and fabricated wire products from wire drawn elsewhere (except watch and clock springs).

33261 SPRING AND WIRE PRODUCT MANUFACTURING

This industry comprises establishments primarily engaged in:

- 1. manufacturing steel springs by forming, such as cutting, bending, and heat winding, metal rod or strip stock, and/or
- 2. manufacturing wire springs and fabricated wire products from wire drawn elsewhere (except watch and clock springs).

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332611 SPRING (HEAVY GAUGE) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing heavy gauge springs by forming, such as cutting, bending, and heat winding, rod or strip stock.

332612 SPRING (LIGHT GAUGE) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing light gauge springs from purchased wire or strip.

332618 OTHER FABRICATED WIRE PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated wire products (except springs) made from purchased wire.

3327 MACHINE SHOPS; TURNED PRODUCT; AND SCREW, NUT, AND BOLT MANUFACTURING

This industry group comprises establishments primarily engaged in:

- 1. Machine shops and/or
- 2. Turned product and screw, nut, and bolt manufacturing.

33271 MACHINE SHOPS

This industry comprises establishments primarily engaged in machining metal parts on a job or order basis (known as machine shops). Generally machine shop jobs are low volume using machine tools, such as lathes (including computer numerically controlled); automatic screw machines; and machines for boring, grinding, and milling.

332710 MACHINE SHOPS

This U.S. industry comprises establishments primarily engaged in machining metal parts on a job or order basis (known as machine shops). Generally machine shop jobs are low volume using machine tools, such as lathes (including computer numerically controlled); automatic screw machines; and machines for boring, grinding, and milling.

33272 TURNED PRODUCT AND SCREW, NUT, AND BOLT MANUFACTURING

This industry comprises establishments primarily engaged in:

- 1. machining precision turned products or
- 2. manufacturing metal bolts, nuts, screws, rivets, and other industrial fasteners.

Included in this industry are establishments primarily engaged in manufacturing parts for machinery and equipment on a customized basis.

332721 PRECISION TURNED PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in machining precision products of all materials on a job or order basis (known as precision turned manufacturers). Generally precision turned product jobs are large volume using machines, such as automatic screw machines, rotary transfer machines, computer numerically controlled (CNC) lathes, or turning centers.

332722 BOLT, NUT, SCREW, RIVET, AND WASHER MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal bolts, nuts, screws, rivets, washers, and other industrial fasteners using machines, such as headers, threaders, and nut forming machines.

3328 COATING, ENGRAVING, HEAT TREATING, AND ALLIED ACTIVITIES

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

- 1. Heat treating metals and metal products;
- 2. Enameling, lacquering, and varnishing metals and metal products;
- 3. Hot dip galvanizing metals and metal products;
- 4. Engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates);
- 5. Powder coating metals and metal products;
- 6. Electroplating, plating, anodizing, coloring, and finishing metals and metal products; and
- 7. Providing other metal surfacing services for the trade.

Included in this industry are establishments that coat engravings and heat treat metals and metal formed products fabricated elsewhere.

33281 COATING, ENGRAVING, HEAT TREATING, AND ALLIED ACTIVITIES

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

- 1. heat treating metals and metal products;
- 2. enameling, lacquering, and varnishing metals and metal products;
- 3. hot dip galvanizing metals and metal products;
- 4. engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates);
- 5. powder coating metals and metal products;
- 6. electroplating, plating, anodizing, coloring, and finishing metals and metal products; and
- 7. providing other metal surfacing services for the trade.

Included in this industry are establishments that coat engravings and heat treat metals and metal formed products fabricated elsewhere.

332811 METAL HEAT TREATING

This U.S. industry comprises establishments primarily engaged in heat treating, such as annealing, tempering, and brazing metals and metal products for the trade.

332812 METAL COATING, ENGRAVING (EXCEPT JEWELRY AND SILVERWARE), AND ALLIED SERVICES TO MANUFACTURERS

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

- 1. enameling, lacquering, and varnishing metals and metal products;
- 2. hot dip galvanizing metals and metal products;
- 3. engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates);
- 4. powder coating metals and metal products; and
- 5. providing other metal surfacing services for the trade.

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332813 ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

This U.S. industry comprises establishments primarily engaged in electroplating, plating, anodizing, coloring, buffing, polishing, cleaning, and sandblasting metals and metal products for the trade.

3329 OTHER FABRICATED METAL PRODUCT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metals, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, and nuts and bolts).

33291 METAL VALVE MANUFACTURING

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

- 1. industrial valves;
- 2. fluid power valves and hose fittings;
- 3. plumbing fixture fittings and trim; and
- 4. other metal valves and pipe fittings.

332911 INDUSTRIAL VALVE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing industrial valves and valves for water works and municipal water systems.

332912 FLUID POWER VALVE AND HOSE FITTING MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power valves and hose fittings.

332913 PLUMBING FIXTURE FITTING AND TRIM MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal and plastics plumbing fixture fittings and trim, such as faucets, flush valves, and shower heads.

332919 OTHER METAL VALVE AND PIPE FITTING MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal valves (except industrial valves, fluid power valves, fluid power hose fittings, and plumbing fixture fittings and trim).

33299 ALL OTHER FABRICATED METAL PRODUCT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metal products, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, nuts and bolts, and metal valves).

332991 BALL AND ROLLER BEARING MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing ball and roller bearings of all materials.

332992 SMALL ARMS AMMUNITION MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing small arms ammunition.

332993 AMMUNITION (EXCEPT SMALL ARMS) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing ammunition (except small arms). Examples of products made by these establishments are bombs, depth charges, rockets (except guided missiles), grenades, mines, and torpedoes.

332994 SMALL ARMS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing small firearms that are carried and fired by the individual.

332995 OTHER ORDNANCE AND ACCESSORIES MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing ordnance (except small arms) and accessories.

332996 FABRICATED PIPE AND PIPE FITTING MANUFACTURING

This U.S. industry comprises establishments primarily engaged in fabricating, such as cutting, threading, and bending metal pipes and pipe fittings made from purchased metal pipe.

332997 INDUSTRIAL PATTERN MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing industrial patterns.

332998 ENAMELED IRON AND METAL SANITARY WARE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing enameled iron and metal sanitary ware.

332999 ALL OTHER MISCELLANEOUS FABRICATED METAL PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metals, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, nuts and bolts, metal valves, ball and roller bearings, ammunition, small arms and other ordnances, fabricated pipes and pipe fittings, industrial patterns, and enameled iron and metal sanitary ware).

333 MACHINERY MANUFACTURING

Industries in the Machinery Manufacturing subsector create end products that apply mechanical force, for example, the application of gears and levers, to perform work. Some important processes for the manufacture of machinery are forging, stamping, bending, forming, and machining that are used to shape individual pieces of metal. Processes, such as welding and assembling are used to join separate parts together. Although these processes are similar to those used in metal fabricating establishments, machinery manufacturing is different because it typically employs multiple metal forming processes in manufacturing the various parts of the machine. Moreover, complex assembly operations are an inherent part of the production process.

In general, design considerations are very important in machinery production. Establishments specialize in making machinery designed for particular applications. Thus, design is considered to be part of the production process for the purpose of implementing NAICS. The NAICS structure reflects this by defining industries and industry groups that make machinery for different applications. A broad distinction exists between machinery that is generally used in a variety of industrial applications (i.e., general purpose machinery) and machinery that is designed to be used in a particular industry (i.e., special purpose machinery). Three industry groups consist of special purpose machinery-Agricultural, Construction, and Mining Machinery Manufacturing; Industrial Machinery

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Manufacturing; and Commercial and Service Industry Machinery Manufacturing. The other industry groups make general-purpose machinery: Ventilation, Heating, Air Conditioning, and Commercial Refrigeration Equipment Manufacturing; Metalworking Machinery Manufacturing; Engine, Turbine, and Power Transmission Equipment Manufacturing; and Other General Purpose Machinery Manufacturing.

3331 AGRICULTURE, CONSTRUCTION, AND MINING MACHINERY MANUFACTURING

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

- 1. Agricultural implement manufacturing;
- 2. Construction machinery manufacturing; and
- 3. Mining and oil and gas field machinery manufacturing.

33311 AGRICULTURAL IMPLEMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing farm machinery and equipment, powered mowing equipment, and other powered home lawn and garden equipment.

333111 FARM MACHINERY AND EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing agricultural and farm machinery and equipment and other turf and grounds care equipment, including planting, harvesting, and grass mowing equipment (except lawn and garden-type).

333112 LAWN AND GARDEN TRACTOR AND HOME LAWN AND GARDEN EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing powered lawn-mowers, lawn and garden tractors, and other home lawn and garden equipment, such as tillers, shredders, and yard vacuums and blowers.

33312 CONSTRUCTION MACHINERY MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing construction machinery, surface mining machinery, and logging equipment.

333120 CONSTRUCTION MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing construction machinery, surface mining machinery, and logging equipment.

33313 MINING AND OIL AND GAS FIELD MACHINERY MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing oil and gas field and underground mining machinery and equipment.

333131 MINING MACHINERY AND EQUIPMENT MANUFACTURING

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

- 1. manufacturing underground mining machinery and equipment, such as coal breakers, mining cars, core drills, coal cutters, and rock drills and
- 2. manufacturing mineral beneficiating machinery and equipment used in surface or underground mines.

333132 OIL AND GAS FIELD MACHINERY AND EQUIPMENT MANUFACTURING

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

- 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.

33329 OTHER INDUSTRIAL MACHINERY MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing industrial machinery (except agricultural and farm-type, construction, mining, sawmill and woodworking, and plastics and rubber products making machinery).

333291 PAPER INDUSTRY MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing paper industry machinery for making paper and paper products, such as pulp making machinery, paper and paperboard making machinery, and paper and paperboard converting machinery.

333292 TEXTILE MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing textile machinery for making thread, yarn, and fiber.

333293 PRINTING MACHINERY AND EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing printing and bookbinding machinery and equipment, such as printing presses, typesetting machinery, and bindery machinery.

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333294 FOOD PRODUCT MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing food and beverage manufacturing-type machinery and equipment, such as dairy product plant machinery and equipment (e.g., homogenizers, pasteurizers, and ice cream freezers), bakery machinery and equipment (e.g., dough mixers, bake ovens, and pastry rolling machines), meat and poultry processing and preparation machinery, and other commercial food products machinery (e.g., slicers, choppers, and mixers).

333295 SEMICONDUCTOR MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing wafer processing equipment, semiconductor assembly and packaging equipment, and other semiconductor making machinery.

333298 ALL OTHER INDUSTRIAL MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing industrial machinery (except agricultural and farm-type, construction and mining machinery, sawmill and woodworking machinery, plastics and rubber making machinery, paper and paperboard making machinery, textile machinery, printing machinery and equipment, food manufacturing-type machinery, and semiconductor making machinery).

3333 COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing commercial and service machinery, such as automatic vending machinery, commercial laundry and drycleaning machinery, office machinery, photographic and photocopying machinery, optical instruments and machinery, automotive maintenance equipment (except mechanic's handtools), industrial vacuum cleaners, and commercial-type cooking equipment.

33331 COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing commercial and service machinery, such as automatic vending machinery, commercial laundry and dry-cleaning machinery, office machinery, photographic and photocopying machinery, optical instruments and machinery, automotive maintenance equipment (except mechanic's handtools), industrial vacuum cleaners, and commercial-type cooking equipment.

333311 AUTOMATIC VENDING MACHINE MANUFACTURING

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

- 1. manufacturing coin, token, currency, or magnetic card operated vending machines; and/or
- 2. manufacturing coin operated mechanism for machines, such as vending machines, lockers, and laundry machines.

333312 COMMERCIAL LAUNDRY, DRYCLEANING, AND PRESSING MACHINE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing commercial and industrial laundry and drycleaning equipment and pressing machines.

333313 OFFICE MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing office machinery (except computers and photocopying equipment), such as mailhandling machinery and equipment, calculators, typewriters, and dedicated word processing equipment.

333314 OPTICAL INSTRUMENT AND LENS MANUFACTURING

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

- 1. manufacturing optical instruments and lens, such as binoculars, microscopes (except electron and proton), telescopes, prisms, and lenses (except ophthalmic);
- 2. coating or polishing lenses (except ophthalmic); and
- 3. mounting lenses (except ophthalmic).

333315 PHOTOGRAPHIC AND PHOTOCOPYING EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing photographic and photocopying equipment, such as cameras (except television, video, and digital), projectors, film developing equipment, photocopying equipment, and microfilm equipment.

333319 OTHER COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing commercial and service industry equipment (except automatic vending machines, commercial laundry, drycleaning and pressing machines, office machinery, optical instruments and lenses, and photographic and photocopying equipment).

3334 VENTILATION, HEATING, AIR-CONDITIONING, AND COMMERCIAL REFRIGERATION EQUIPMENT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing ventilation, heating, air-conditioning, and commercial and industrial refrigeration and freezer equipment.

33341 VENTILATION, HEATING, AIR-CONDITIONING, AND COMMERCIAL REFRIGERATION EQUIPMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing ventilation, heating, air-conditioning, and commercial and industrial refrigeration and freezer equipment.

333411 AIR PURIFICATION EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing stationary air purification equipment, such as industrial dust and fume collection equipment, electrostatic precipitation equipment, warm air furnace filters, air washers, and other dust collection equipment.

333412 INDUSTRIAL AND COMMERCIAL FAN AND BLOWER MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing attic fans and industrial and commercial fans and blowers, such as commercial exhaust fans and commercial ventilating fans.

333414 HEATING EQUIPMENT (EXCEPT WARM AIR FURNACES) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing heating equipment (except electric and warm air furnaces), such as heating boilers, heating stoves, floor and wall furnaces, and wall and baseboard heating units.

333415 AIR-CONDITIONING AND WARM AIR HEATING EQUIPMENT AND COMMERCIAL AND INDUSTRIAL REFRIGERATION EQUIPMENT MANUFACTURING

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

- 1. manufacturing air-conditioning (except motor vehicle) and warm air furnace equipment and/or
- 2. manufacturing commercial and industrial refrigeration and freezer equipment.

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3335 METALWORKING MACHINERY MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing metalworking machinery, such as metal cutting and metal forming machine tools; cutting tools; and accessories for metalworking machinery; special dies, tools, jigs, and fixtures; industrial molds; rolling mill machinery; assembly machinery; coil handling, conversion, or straightening equipment; and wire drawing and fabricating machines.

33351 METALWORKING MACHINERY MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing metalworking machinery, such as metal cutting and metal forming machine tools; cutting tools; and accessories for metalworking machinery; special dies, tools, jigs, and fixtures; industrial molds; rolling mill machinery; assembly machinery; coil handling, conversion, or straightening equipment; and wire drawing and fabricating machines.

333511 INDUSTRIAL MOLD MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing industrial molds for casting metals or forming other materials, such as plastics, glass, or rubber.

333512 MACHINE TOOL (METAL CUTTING TYPES) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal cutting machine tools (except handtools).

333513 MACHINE TOOL (METAL FORMING TYPES) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal forming machine tools (except handtools), such as punching, sheering, bending, forming, pressing, forging, and die-casting machines.

333514 SPECIAL DIE AND TOOL, DIE SET, JIG, AND FIXTURE MANUFACTURING

This U.S. industry comprises establishments, known as tool and die shops, primarily engaged in manufacturing special tools and fixtures, such as cutting dies and jigs.

333515 CUTTING TOOL AND MACHINE TOOL ACCESSORY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing accessories and attachments for metal cutting and metal forming machine tools.

333516 ROLLING MILL MACHINERY AND EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing rolling mill machinery and equipment for metal production.

333518 OTHER METALWORKING MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal working machinery (except industrial molds; metal cutting machine tools; metal forming machine tools; special dies and tools, die sets, jigs, and fixtures; cutting tools and machine tool accessories; and rolling mill machinery and equipment).

3336 ENGINE, TURBINE, AND POWER TRANSMISSION EQUIPMENT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing turbines, power transmission equipment, and internal combustion engines (except automotive, gasoline, and aircraft).

33361 ENGINE, TURBINE, AND POWER TRANSMISSION EQUIPMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing turbines, power transmission equipment, and internal combustion engines (except automotive, gasoline, and aircraft).

333611 TURBINE AND TURBINE GENERATOR SET UNITS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing turbines (except aircraft) and complete turbine generator set units, such as steam, hydraulic, gas, and wind.

333612 SPEED CHANGER, INDUSTRIAL HIGH-SPEED DRIVE, AND GEAR MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing gears, speed changers, and industrial high-speed drives (except hydrostatic).

333613 MECHANICAL POWER TRANSMISSION EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing mechanical power transmission equipment (except motor vehicle and aircraft), such as plain bearings, clutches (except motor vehicle and electromagnetic industrial control), couplings, joints, and drive chains.

333618 OTHER ENGINE EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing internal combustion engines (except automotive gasoline and aircraft).

3339 OTHER GENERAL PURPOSE MACHINERY MANUFACTURING

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

- 1. Pump and compressor manufacturing;
- 2. Material handling equipment manufacturing; and
- 3. All other general purpose machinery manufacturing.

33391 PUMP AND COMPRESSOR MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing pumps and compressors, such as general purpose air and gas compressors, nonagricultural spraying and dusting equipment, general purpose pumps and pumping equipment (except fluid power pumps and motors), and measuring and dispensing pumps.

333911 PUMP AND PUMPING EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing general purpose pumps and pumping equipment (except fluid power pumps and motors), such as reciprocating pumps, turbine pumps, centrifugal pumps, rotary pumps, diaphragm pumps, domestic water system pumps, oil well and oil field pumps, and sump pumps.

333912 AIR AND GAS COMPRESSOR MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing general purpose air and gas compressors, such as reciprocating compressors, centrifugal compressors, vacuum pumps (except laboratory), and nonagricultural spraying and dusting compressors and spray gun units.

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333913 MEASURING AND DISPENSING PUMP MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing measuring and dispensing pumps, such as gasoline pumps and lubricating oil measuring and dispensing pumps.

33392 MATERIAL HANDLING EQUIPMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing material handling equipment, such as elevators and moving stairs; conveyors and conveying equipment; overhead traveling cranes, hoists, and monorail systems; and industrial trucks, tractors, trailers, and stacker machinery.

333921 ELEVATOR AND MOVING STAIRWAY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing elevators and moving stairways.

333922 CONVEYOR AND CONVEYING EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing conveyors and conveying equipment, such as gravity conveyors, trolley conveyors, tow conveyors, pneumatic tube conveyors, carousel conveyors, farm conveyors, and belt conveyors.

333923 OVERHEAD TRAVELING CRANE, HOIST, AND MONORAIL SYSTEM MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing overhead traveling cranes, hoists, and monorail systems.

333924 INDUSTRIAL TRUCK, TRACTOR, TRAILER, AND STACKER MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing industrial trucks, tractors, trailers, and stackers (i.e., truck-type), such as forklifts, pallet loaders and unloaders, and portable loading docks.

33399 ALL OTHER GENERAL PURPOSE MACHINERY MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing general purpose machinery (except ventilation, heating, air-conditioning, and commercial refrigeration equipment; metal working machinery; engines, turbines, and power transmission equipment; pumps and compressors; and material handling equipment).

333991 POWER-DRIVEN HANDTOOL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing power-driven (e.g., battery, corded, and pneumatic) handtools, such as drills, screwguns, circular saws, chain saws, staplers, and nailers.

333992 WELDING AND SOLDERING EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing welding and soldering equipment and accessories (except transformers), such as arc, resistance, gas, plasma, laser, electron beam, and ultrasonic welding equipment; welding electrodes; coated or cored welding wire; and soldering equipment (except handheld).

333993 PACKAGING MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing packaging machinery, such as wrapping, bottling, canning, and labeling machinery.

333994 INDUSTRIAL PROCESS FURNACE AND OVEN MANUFACTURING

This U.S. Industry comprises establishments primarily engaged in manufacturing industrial process furnaces, ovens, induction and dielectric heating equipment, and kilns (except cement, chemical, and wood).

333995 FLUID POWER CYLINDER AND ACTUATOR MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power (i.e., hydraulic and pneumatic) cylinders and actuators.

333996 FLUID POWER PUMP AND MOTOR MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power (i.e., hydraulic and pneumatic) pumps and motors.

333997 SCALE AND BALANCE (EXCEPT LABORATORY) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing scales and balances (except laboratory).

333999 ALL OTHER MISCELLANEOUS GENERAL PURPOSE MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing general purpose machinery (except ventilating, heating, air-conditioning, and commercial refrigeration equipment; metal working machinery; engines, turbines, and power transmission equipment; pumps and compressors; material handling equipment; power-driven handtools; welding and soldering equipment; packaging machinery; industrial process furnaces and ovens; fluid power cylinders and actuators; fluid power pumps and motors; and scales and balances).

334 COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING

Industries in the Computer and Electronic Product Manufacturing subsector group establishments that manufacture computers, computer peripherals, communications equipment, and similar electronic products, and establishments that manufacture components for such products. The Computer and Electronic Product Manufacturing industries have been combined in the hierarchy of NAICS because of the economic significance they have attained. Their rapid growth suggests that they will become even more important to the economies of all three North American countries in the future, and in addition their manufacturing processes are fundamentally different from the manufacturing processes of other machinery and equipment. The design and use of integrated circuits and the application of highly specialized miniaturization technologies are common elements in the production technologies of the computer and electronic subsector. Convergence of technology motivates this NAICS subsector. Digitalization of sound recording, for example, causes both the medium (the compact disc) and the equipment to resemble the technologies for recording, storing, transmitting, and manipulating data. Communications technology and equipment have been converging with computer technology. When technologically-related components are in the same sector, it makes it easier to adjust the classification for future changes, without needing to redefine its basic structure. The creation of the Computer and Electronic Product Manufacturing subsector will assist in delineating new and emerging industries because the activities that will serve as the probable sources of new industries, such as computer manufacturing and communications equipment manufacturing, or computers and audio equipment, are brought together. As new activities emerge, they are less likely therefore, to cross the subsector boundaries of the classification.

3341 COMPUTER AND PERIPHERAL EQUIPMENT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, input/output devices and terminals. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following:

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- 1. Store the processing program or programs and the data immediately necessary for the execution of the program;
- 2. Can be freely programmed in accordance with the requirements of the user;
- 3. Perform arithmetical computations specified by the user; and
- 4. Execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run.

Analog computers are capable of simulating mathematical models and comprise at least analog, control, and programming elements.

33411 COMPUTER AND PERIPHERAL EQUIPMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, input/output devices and terminals. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following:

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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:

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- 3. perform arithmetical computations specified by the user; and
- 4. execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run.

Analog computers are capable of simulating mathematical models and contain at least analog, control, and programming elements. The manufacture of computers includes the assembly or integration of processors, coprocessors, memory, storage, and input/output devices into a user-programmable final product.

334112 COMPUTER STORAGE DEVICE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, optical, or magnetic/optical media. Examples of products made by these establishments are CD-ROM drives, floppy disk drives, hard disk drives, and tape storage and backup units.

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;
- Radio and television broadcasting and wireless communications equipment manufacturing; and
- 3. Other communications equipment manufacturing.

33421 TELEPHONE APPARATUS MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be standalone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, LAN modems, multi-user modems, and other data communications equipment, such as bridges, routers, and gateways.

334210 TELEPHONE APPARATUS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be stand-alone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, and data communications equipment, such as bridges, routers, and gateways.

33422 RADIO AND TELEVISION BROADCASTING AND WIRELESS COMMUNICATIONS EQUIPMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.

334220 RADIO AND TELEVISION BROADCASTING AND WIRELESS COMMUNICATIONS EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.

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33429 OTHER COMMUNICATIONS EQUIPMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, and radio and television broadcast, and wireless communications equipment).

334290 OTHER COMMUNICATIONS EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, radio and television broadcast, and wireless communications equipment).

3343 AUDIO AND VIDEO EQUIPMENT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, juke-boxes, and amplifiers for musical instruments and public address systems.

33431 AUDIO AND VIDEO EQUIPMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

334310 AUDIO AND VIDEO EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

3344 SEMICONDUCTOR AND OTHER ELECTRONIC COMPONENT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing semiconductors and other components for electronic applications. Examples of products made by these establishments are capacitors, resistors, microprocessors, bare and loaded printed circuit boards, electron tubes, electronic connectors, and computer modems.

33441 SEMICONDUCTOR AND OTHER ELECTRONIC COMPONENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing semiconductors and other components for electronic applications. Examples of products made by these establishments are capacitors, resistors, microprocessors, bare and loaded printed circuit boards, electron tubes, electronic connectors, and computer modems.

334411 ELECTRON TUBE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electron tubes and parts (except glass blanks). Examples of products made by these establishments are cathode ray tubes (i.e., picture tubes), klystron tubes, magnetron tubes, and traveling wave tubes.

334412 BARE PRINTED CIRCUIT BOARD MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing bare (i.e., rigid or flexible) printed circuit boards without mounted electronic components. These establishments print, perforate, plate, screen, etch, or photoprint interconnecting pathways for electric current on laminates.

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 variators.

334416 ELECTRONIC COIL, TRANSFORMER, AND OTHER INDUCTOR MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electronic inductors, such as coils and transformers.

334417 ELECTRONIC CONNECTOR MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electronic connectors, such as coaxial; cylindrical; rack and panel; pin and sleeve; printed circuit; and fiber optic.

334418 PRINTED CIRCUIT ASSEMBLY (ELECTRONIC ASSEMBLY) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in loading components onto printed circuit boards or who manufacture and ship loaded printed circuit boards. Also known as printed circuit assemblies, electronics assemblies, or modules, these products are printed circuit boards that have some or all of the semiconductor and electronic components inserted or mounted and are inputs to a wide variety of electronic systems and devices.

334419 OTHER ELECTRONIC COMPONENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electronic components (except electron tubes; bare printed circuit boards; semiconductors and related devices; electronic capacitors; electronic resistors; coils, transformers, and other inductors; connectors; and loaded printed circuit boards).

3345 NAVIGATIONAL, MEASURING, ELECTROMEDICAL, AND CONTROL INSTRUMENTS MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments, navigation and guidance systems, and physical properties testing equipment.

33451 NAVIGATIONAL, MEASURING, ELECTROMEDICAL, AND CONTROL INSTRUMENTS MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments, navigation and guidance systems, and physical properties testing equipment.

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334510 ELECTROMEDICAL AND ELECTROTHERAPEUTIC APPARATUS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electromedical and electrotherapeutic apparatus, such as magnetic resonance imaging equipment, medical ultrasound equipment, pacemakers, hearing aids, electrocardiographs, and electromedical endoscopic equipment.

334511 SEARCH, DETECTION, NAVIGATION, GUIDANCE, AERONAUTICAL, AND NAUTICAL SYSTEM AND INSTRUMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing search, detection, navigation, guidance, aeronautical, and nautical systems and instruments. Examples of products made by these establishments are aircraft instruments (except engine), flight recorders, navigational instruments and systems, radar systems and equipment, and sonar systems and equipment.

334512 AUTOMATIC ENVIRONMENTAL CONTROL MANUFACTURING FOR RESIDENTIAL, COMMERCIAL, AND APPLIANCE USE

This U.S. industry comprises establishments primarily engaged in manufacturing automatic controls and regulators for applications, such as heating, air-conditioning, refrigeration, and appliances.

334513 INSTRUMENTS AND RELATED PRODUCTS MANUFACTURING FOR MEASURING, DISPLAYING, AND CONTROLLING INDUSTRIAL PROCESS VARIABLES

This U.S. industry comprises establishments primarily engaged in manufacturing instruments and related devices for measuring, displaying, indicating, recording, transmitting, and controlling industrial process variables. These instruments measure, display, or control (i.e., monitor and analyze) industrial process variables, such as temperature, humidity, pressure, vacuum, combustion, flow, level, viscosity, density, acidity, concentration, and rotation.

334514 TOTALIZING FLUID METER AND COUNTING DEVICE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing totalizing (i.e., registering) fluid meters and counting devices. Examples of products made by these establishments are gas consumption meters, water consumption meters, parking meters, taxi meters, motor vehicle gauges, and fare collection equipment.

334515 INSTRUMENT MANUFACTURING FOR MEASURING AND TESTING ELECTRICITY AND ELECTRICAL SIGNALS

This U.S. industry comprises establishments primarily engaged in manufacturing instruments for measuring and testing the characteristics of electricity and electrical signals. Examples of products made by these establishments are circuit and continuity testers, volt meters, ohm meters, wattmeters, multimeters, and semiconductor test equipment.

334516 ANALYTICAL LABORATORY INSTRUMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing instruments and instrumentation systems for laboratory analysis of the chemical or physical composition or concentration of samples of solid, fluid, gaseous, or composite material.

334517 IRRADIATION APPARATUS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing irradiation apparatus and tubes for applications, such as medical diagnostic, medical therapeutic, industrial, and research and scientific evaluation. Irradiation can take the form of beta-rays, gamma-rays, X-rays, or other ionizing radiation.

334518 WATCH, CLOCK, AND PART MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing and/or assembling: clocks; watches; timing mechanisms for clockwork operated devices; time clocks; time and date recording devices; and clock and watch parts (except crystals), such as springs, jewels, and modules.

334519 OTHER MEASURING AND CONTROLLING DEVICE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing measuring and controlling devices (except search, detection, navigation, guidance, aeronautical, and nautical instruments and systems; automatic environmental controls for residential, commercial, and appliance use; instruments for measurement, display, and control of industrial process variables; totalizing fluid meters and counting devices; instruments for measuring and testing electricity and electrical signals; analytical laboratory instruments; watches, clocks, and parts; irradiation equipment; and electromedical and electrotherapeutic apparatus).

3346 MANUFACTURING AND REPRODUCING MAGNETIC AND OPTICAL MEDIA

This industry group comprises establishments primarily engaged in:

- 1. Manufacturing optical and magnetic media, such as blank audio tape, blank video tape, and blank diskettes and/or
- 2. Mass duplicating (i.e., making copies) audio, video, software, and other data on magnetic, optical, and similar media.

33461 MANUFACTURING AND REPRODUCING MAGNETIC AND OPTICAL MEDIA

This industry comprises establishments primarily engaged in:

- 1. manufacturing optical and magnetic media, such as blank audio tape, blank video tape, and blank diskettes and/or;
- 2. mass duplicating (i.e., making copies) audio, video, software, and other data on magnetic, optical, and similar media.

334611 SOFTWARE REPRODUCING

This U.S. industry comprises establishments primarily engaged in mass reproducing computer software. These establishments do not generally develop any software, they mass reproduce data and programs on magnetic media, such as diskettes, tapes, or cartridges. Establishments in this industry mass reproduce products, such as CD-ROMs and game cartridges.

334612 PRERECORDED COMPACT DISC (EXCEPT SOFTWARE), TAPE, AND RECORD REPRODUCING

This U.S. industry comprises establishments primarily engaged in mass reproducing audio and video material on magnetic or optical media. Examples of products mass reproduced by these establishments are audio compact discs, prerecorded audio and video cassettes, and laser discs.

334613 MAGNETIC AND OPTICAL RECORDING MEDIA MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing magnetic and optical recording media, such as blank magnetic tape, blank diskettes, blank optical discs, hard drive media, and blank magnetic tape cassettes.

335 ELECTRICAL EQUIPMENT, APPLIANCE, AND COMPONENT MANUFACTURING

Industries in the Electrical Equipment, Appliance, and Component Manufacturing subsector manufacture products that generate, distribute and use electrical power. Electric Lighting Equipment Manufacturing establishments produce electric lamp bulbs, lighting fixtures, and parts. Household

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Appliance Manufacturing establishments make both small and major electrical appliances and parts. Electrical Equipment Manufacturing establishments make goods, such as electric motors, generators, transformers, and switchgear apparatus. Other Electrical Equipment and Component Manufacturing establishments make devices for storing electrical power (e.g., batteries), for transmitting electricity (e.g., insulated wire), and wiring devices (e.g., electrical outlets, fuse boxes, and light switches).

3351 ELECTRIC LIGHTING EQUIPMENT MANUFACTURING

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

- 1. Electric lamp bulb and part manufacturing and/or
- 2. Lighting fixture manufacturing.

33511 ELECTRIC LAMP BULB AND PART MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing electric light bulbs and tubes, and parts and components (except glass blanks for electric light bulbs).

335110 ELECTRIC LAMP BULB AND PART MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electric light bulbs and tubes, and parts and components (except glass blanks for electric light bulbs).

33512 LIGHTING FIXTURE MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing electric lighting fixtures (except vehicular), nonelectric lighting equipment, lamp shades (except glass and plastics), and lighting fixture components (except current-carrying wiring devices).

335121 RESIDENTIAL ELECTRIC LIGHTING FIXTURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing fixed or portable residential electric lighting fixtures and lamp shades of metal, paper, or textiles. Residential electric lighting fixtures include those for use both inside and outside the residence.

335122 COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL ELECTRIC LIGHTING FIXTURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing commercial, industrial, and institutional electric lighting fixtures.

335129 OTHER LIGHTING EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electric lighting fixtures (except residential, commercial, industrial, institutional, and vehicular) and nonelectric lighting equipment.

3352 HOUSEHOLD APPLIANCE MANUFACTURING

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

- 1. Small electrical appliance manufacturing and/or
- 2. Major appliance manufacturing.

33521 SMALL ELECTRICAL APPLIANCE MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing small electric appliances and electric housewares, household-type fans, household-type vacuum cleaners, and other electric household-type floor care machines.

335211 ELECTRIC HOUSEWARES AND HOUSEHOLD FAN MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing small electric appliances and electric housewares for heating, cooking, and other purposes, and electric household-type fans (except attic fans).

335212 HOUSEHOLD VACUUM CLEANER MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electric vacuum cleaners, electric floor waxing machines, and other electric floor care machines typically for household use.

33522 MAJOR APPLIANCE MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing household-type cooking appliances, household-type laundry equipment, household-type refrigerators, upright and chest freezers, and other electrical and nonelectrical major household-type appliances, such as dishwashers, water heaters, and garbage disposal units.

335221 HOUSEHOLD COOKING APPLIANCE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing household-type electric and nonelectric cooking equipment (except small electric appliances and electric housewares).

335222 HOUSEHOLD REFRIGERATOR AND HOME FREEZER MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing household-type refrigerators and upright and chest freezers.

335224 HOUSEHOLD LAUNDRY EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing household-type laundry equipment.

335228 OTHER MAJOR HOUSEHOLD APPLIANCE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electric and non-electric major household-type appliances (except cooking equipment, refrigerators, upright and chest freezers, and household-type laundry equipment).

3353 ELECTRICAL EQUIPMENT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers; electric motors, generators, and motor generator sets; switchgear and switchboard apparatus; relays; and industrial controls.

33531 ELECTRICAL EQUIPMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers; electric motors, generators, and motor generator sets; switchgear and switchboard apparatus; relays; and industrial controls.

335311 POWER, DISTRIBUTION, AND SPECIALTY TRANSFORMER MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers (except electronic components). Industrial-type and consumertype transformers in this industry vary (e.g., step up or step down) voltage but do not convert alternating to direct or direct to alternating current.

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335312 MOTOR AND GENERATOR MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing electric motors (except internal combustion engine starting motors), power generators (except battery charging alternators for internal combustion engines), and motor generator sets (except turbine generator set units). This industry includes establishments rewinding armatures on a factory basis.

335313 SWITCHGEAR AND SWITCHBOARD APPARATUS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing switchgear and switchboard apparatus.

335314 RELAY AND INDUSTRIAL CONTROL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing relays, motor starters and controllers, and other industrial controls and control accessories.

3359 OTHER ELECTRICAL EQUIPMENT AND COMPONENT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing electrical equipment and components (except electric lighting equipment, household-type appliances, transformers, switchgear, relays, motors, and generators).

33591 BATTERY MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing primary and storage batteries.

335911 STORAGE BATTERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing storage batteries

335912 PRIMARY BATTERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing wet or dry primary batteries.

33592 COMMUNICATION AND ENERGY WIRE AND CABLE MANUFACTURING

This industry comprises establishments insulating fiber-optic cable, and manufacturing insulated nonferrous wire and cable from nonferrous wire drawn in other establishments.

335921 FIBER OPTIC CABLE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing insulated fiberoptic cable from purchased fiber-optic strand.

335929 OTHER COMMUNICATION AND ENERGY WIRE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing insulated wire and cable of nonferrous metals from purchased wire.

33593 WIRING DEVICE MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing current-carrying wiring devices and noncurrent-carrying wiring devices for wiring electrical circuits.

335931 CURRENT-CARRYING WIRING DEVICE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing current-carrying wiring devices.

335932 NONCURRENT-CARRYING WIRING DEVICE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing noncurrent-carrying wiring devices.

33599 ALL OTHER ELECTRICAL EQUIPMENT AND COMPONENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing electrical equipment (except electric lighting equipment, household-type appliances, transformers, motors, generators, switchgear, relays, industrial controls, batteries, communication and energy wire and cable, and wiring devices).

335991 CARBON AND GRAPHITE PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing carbon, graphite, and metal-graphite brushes and brush stock; carbon or graphite electrodes for thermal and electrolytic uses; carbon and graphite fibers; and other carbon, graphite, and metal-graphite products.

335999 ALL OTHER MISCELLANEOUS ELECTRICAL EQUIPMENT AND COMPONENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing industrial and commercial electric apparatus and other equipment (except lighting equipment, household appliances, transformers, motors, generators, switchgear, relays, industrial controls, batteries, communication and energy wire and cable, wiring devices, and carbon and graphite products). This industry includes power converters (i.e., AC to DC and DC to AC), power supplies, surge suppressors, and similar equipment for industrial-type and consumer-type equipment.

336 TRANSPORTATION EQUIPMENT MANUFACTURING

Industries in the Transportation Equipment Manufacturing subsector produce equipment for transporting people and goods. Transportation equipment is a type of machinery. An entire subsector is devoted to this activity because of the significance of its economic size in all three North American countries.

Establishments in this subsector utilize production processes similar to those of other machinery manufacturing establishments - bending, forming, welding, machining, and assembling metal or plastic parts into components and finished products. However, the assembly of components and subassemblies and their further assembly into finished vehicles tends to be a more common production process in this subsector than in the Machinery Manufacturing subsector.

NAICS has industry groups for the manufacture of equipment for each mode of transport - road, rail, air and water. Parts for motor vehicles warrant a separate industry group because of their importance and because parts manufacture requires less assembly, and the establishments that manufacture only parts are not as vertically integrated as those that make complete vehicles.

Land use motor vehicle equipment not designed for highway operation (e.g., agricultural equipment, construction equipment, and materials handling equipment) is classified in the appropriate NAICS subsector based on the type and use of the equipment.

3361 MOTOR VEHICLE MANUFACTURING

This industry group comprises establishments primarily engaged in:

- 1. Automobile and light duty motor vehicle manufacturing and/or
- 2. Heavy duty truck manufacturing.

33611 AUTOMOBILE AND LIGHT DUTY MOTOR VEHICLE MANUFACTURING

This industry comprises establishments primarily engaged in:

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- 1. manufacturing complete automobile and light duty motor vehicles (i.e., body and chassis or unibody) or
- 2. manufacturing chassis only.

336111 AUTOMOBILE MANUFACTURING

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

- 1. manufacturing complete automobiles (i.e., body and chassis or unibody) or
- 2. manufacturing automobile chassis only.

336112 LIGHT TRUCK AND UTILITY VEHICLE MANUFACTURING

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

- 1. manufacturing complete light trucks and utility vehicles (i.e., body and chassis) or
- 2. manufacturing light truck and utility vehicle chassis only.

Vehicles made include light duty vans, pick-up trucks, minivans, and sport utility vehicles.

33612 HEAVY DUTY TRUCK MANUFACTURING

This industry comprises establishments primarily engaged in:

- 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.

336213 MOTOR HOME MANUFACTURING

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

- 1. manufacturing motor homes on purchased chassis and/or
- 2. manufacturing conversion vans on an assembly line basis.

Motor homes are units where the motor and the living quarters are integrated in the same unit.

336214 TRAVEL TRAILER AND CAMPER MANUFACTURING

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

- 1. manufacturing travel trailers and campers designed to attach to motor vehicles;
- 2. manufacturing pickup coaches (i.e., campers) and caps (i.e., covers) for mounting on pickup trucks; and
- 3. manufacturing automobile, utility, and light-truck trailers.

Travel trailers do not have their own motor but are designed to be towed by a motor unit, such as an automobile or a light truck.

3363 MOTOR VEHICLE PARTS MANUFACTURING

This industry group comprises establishments primarily engaged in:

- 1. Motor vehicle gasoline engine and engine parts manufacturing;
- 2. Motor vehicle electrical and electronic equipment manufacturing;
- 3. Motor vehicle steering and suspension components (except spring) manufacturing;
- 4. Motor vehicle brake system manufacturing;
- 5. Motor vehicle transmission and power train parts manufacturing;
- 6. Motor vehicle seating and interior trim manufacturing;
- 7. Motor vehicle metal stamping; and/or
- 8. Other motor vehicle parts manufacturing.

33631 MOTOR VEHICLE GASOLINE ENGINE AND ENGINE PARTS MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle gasoline engines, and engine parts, whether or not for vehicular use.

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336311 CARBURETOR, PISTON, PISTON RING, AND VALVE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding carburetors, pistons, piston rings, and engine intake and exhaust valves.

336312 GASOLINE ENGINE AND ENGINE PARTS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding gasoline motor vehicle engines and gasoline motor vehicle engine parts, excluding carburetors, pistons, piston rings, and valves.

33632 MOTOR VEHICLE ELECTRICAL AND ELECTRONIC EQUIPMENT MANUFACTURING

This industry comprises establishments primarily engaged in:

- 1. manufacturing vehicular lighting and/or
- 2. manufacturing and/or rebuilding motor vehicle electrical and electronic equipment.

The products made can be used for all types of transportation equipment (i.e., aircraft, automobiles, trains, and ships).

336321 VEHICULAR LIGHTING EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing vehicular lighting fixtures.

336322 OTHER MOTOR VEHICLE ELECTRICAL AND ELECTRONIC EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding electrical and electronic equipment for motor vehicles and internal combustion engines.

33633 MOTOR VEHICLE STEERING AND SUSPENSION COMPONENTS (EXCEPT SPRING) MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle steering mechanisms and suspension components (except springs).

336330 MOTOR VEHICLE STEERING AND SUSPENSION COMPONENTS (EXCEPT SPRING) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle steering mechanisms and suspension components (except springs).

33634 MOTOR VEHICLE BRAKE SYSTEM MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle brake systems and related components.

336340 MOTOR VEHICLE BRAKE SYSTEM MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle brake systems and related components.

33635 MOTOR VEHICLE TRANSMISSION AND POWER TRAIN PARTS MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle transmission and power train parts.

336350 MOTOR VEHICLE TRANSMISSION AND POWER TRAIN PARTS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle transmission and power train parts.

33636 MOTOR VEHICLE SEATING AND INTERIOR TRIM MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing motor vehicle seating, seats, seat frames, seat belts, and interior trimmings.

336360 MOTOR VEHICLE SEATING AND INTERIOR TRIM MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing motor vehicle seating, seats, seat frames, seat belts, and interior trimmings.

33637 MOTOR VEHICLE METAL STAMPING

This industry comprises establishments primarily engaged in manufacturing motor vehicle stampings, such as fenders, tops, body parts, trim, and molding.

336370 MOTOR VEHICLE METAL STAMPING

This U.S. industry comprises establishments primarily engaged in manufacturing motor vehicle stampings, such as fenders, tops, body parts, trim, and molding.

33639 OTHER MOTOR VEHICLE PARTS MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle parts and accessories (except motor vehicle gasoline engines and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, motor vehicle transmission and power train parts, motor vehicle seating and interior trim, and motor vehicle stampings).

336391 MOTOR VEHICLE AIR-CONDITIONING MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing air-conditioning systems and compressors for motor vehicles, such as automobiles, trucks, buses, aircraft, farm machinery, construction machinery, and other related vehicles.

336399 ALL OTHER MOTOR VEHICLE PARTS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle parts and accessories (except motor vehicle gasoline engines and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, motor vehicle transmission and power train parts, motor vehicle seating and interior trim, motor vehicle stampings, and motor vehicle air-conditioning systems and compressors).

3364 AEROSPACE PRODUCT AND PARTS MANUFACTURING

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

- 1. Manufacturing complete aircraft, missiles, or space vehicles;
- 2. Manufacturing aerospace engines, propulsion units, auxiliary equipment or parts;
- 3. Developing and making prototypes of aerospace products;
- 4. Aircraft conversion (i.e., major modifications to systems); and
- 5. Complete aircraft or propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

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33641 AEROSPACE PRODUCT AND PARTS MANUFACTURING

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

- 1. manufacturing complete aircraft, missiles, or space vehicles;
- 2. manufacturing aerospace engines, propulsion units, auxiliary equipment or parts;
- 3. developing and making prototypes of aerospace products;
- 4. aircraft conversion (i.e., major modifications to systems); and
- 5. complete aircraft or propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

336411 AIRCRAFT MANUFACTURING

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

- 1. manufacturing or assembling complete aircraft;
- 2. developing and making aircraft prototypes;
- 3. aircraft conversion (i.e., major modifications to systems); and
- 4. complete aircraft overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

336412 AIRCRAFT ENGINE AND ENGINE PARTS MANUFACTURING

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

- 1. manufacturing aircraft engines and engine parts;
- 2. developing and making prototypes of aircraft engines and engine parts;
- 3. aircraft propulsion system conversion (i.e., major modifications to systems); and
- 4. aircraft propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft propulsion system to original design specifications).

336413 OTHER AIRCRAFT PARTS AND AUXILIARY EQUIPMENT MANUFACTURING

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

- 1. manufacturing aircraft parts or auxiliary equipment (except engines and aircraft fluid power subassemblies) and/or
- 2. developing and making prototypes of aircraft parts and auxiliary equipment.

Auxiliary equipment includes such items as crop dusting apparatus, armament racks, inflight refueling equipment, and external fuel tanks.

336414 GUIDED MISSILE AND SPACE VEHICLE MANUFACTURING

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

- 1. manufacturing complete guided missiles and space vehicles and/or
- 2. developing and making prototypes of guided missile or space vehicles.

336415 GUIDED MISSILE AND SPACE VEHICLE PROPULSION UNIT AND PROPULSION UNIT PARTS MANUFACTURING

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

1. manufacturing guided missile and/or space vehicle propulsion units and propulsion unit parts and/or

2. developing and making prototypes of guided missile and space vehicle propulsion units and propulsion unit parts.

336419 OTHER GUIDED MISSILE AND SPACE VEHICLE PARTS AND AUXILIARY EQUIPMENT MANUFACTURING

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

- 1. manufacturing guided missile and space vehicle parts and auxiliary equipment (except guided missile and space vehicle propulsion units and propulsion unit parts) and/or
- 2. developing and making prototypes of guided missile and space vehicle parts and auxiliary equipment.

3365 RAILROAD ROLLING STOCK MANUFACTURING

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

- 1. Manufacturing and/or rebuilding locomotives, locomotive frames, and parts;
- 2. Manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and
- 3. Manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

33651 RAILROAD ROLLING STOCK MANUFACTURING

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

- 1. manufacturing and/or rebuilding locomotives, locomotive frames, and parts;
- 2. manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and
- 3. manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

336510 RAILROAD ROLLING STOCK MANUFACTURING

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

- 1. manufacturing and/or rebuilding locomotives, locomotive frames, and parts;
- 2. manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and
- 3. manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

3366 SHIP AND BOAT BUILDING

This industry group comprises establishments primarily engaged in operating shipyards or boat yards (i.e., ship or boat manufacturing facilities). Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for other than personal or recreational use. Boats are defined as watercraft typically suitable or intended for personal use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

33661 SHIP AND BOAT BUILDING

This industry comprises establishments primarily engaged in operating shipyards or boat yards (i.e., ship or boat manufacturing facilities). Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for

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other than personal or recreational use. Boats are defined as watercraft typically suitable or intended for personal use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

336611 SHIP BUILDING AND REPAIRING

This U.S. industry comprises establishments primarily engaged in operating a shipyard. Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for other than personal or recreational use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

336612 BOAT BUILDING

This U.S. industry comprises establishments primarily engaged in building boats. Boats are defined as watercraft not built in shipyards and typically of the type suitable or intended for personal use.

3369 OTHER TRANSPORTATION EQUIPMENT MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing transportation equipment (except motor vehicles and parts, aerospace products and parts, railroad rolling stock, ship building, and boat manufacturing).

33699 OTHER TRANSPORTATION EQUIPMENT MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing motorcycles, bicycles, metal tricycles, complete military armored vehicles, tanks, self-propelled weapons, vehicles pulled by draft animals, and other transportation equipment (except motor vehicles, boats, ships, railroad rolling stock, and aerospace products), including parts thereof.

336991 MOTORCYCLE, BICYCLE, AND PARTS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing motorcycles, bicycles, tricycles and similar equipment, and parts.

336992 MILITARY ARMORED VEHICLE, TANK, AND TANK COMPONENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing complete military armored vehicles, combat tanks, specialized components for combat tanks, and self-propelled weapons.

336999 ALL OTHER TRANSPORTATION EQUIPMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing transportation equipment (except motor vehicles, motor vehicle parts, boats, ships, railroad rolling stock, aerospace products, motorcycles, bicycles, and armored vehicles and tanks).

337 FURNITURE AND RELATED PRODUCT MANUFACTURING

Industries in the Furniture and Related Product Manufacturing subsector make furniture and related articles, such as mattresses, window blinds, cabinets, and fixtures. The processes used in the manufacture of furniture include the cutting, bending, molding, laminating, and assembly of such materials as wood, metal, glass, plastics, and rattan. However, the production process for

furniture is not solely bending metal, cutting and shaping wood, or extruding and molding plastics. Design and fashion trends play an important part in the production of furniture. The integrated design of the article for both esthetic and functional qualities is also a major part of the process of manufacturing furniture. Design services may be performed by the furniture establishment's work force or may be purchased from industrial designers.

Furniture may be made of any material, but the most common ones used in North America are metal and wood. Furniture manufacturing establishments may specialize in making articles primarily from one material. Some of the equipment required to make a wooden table, for example, is different from that used to make a metal one. However, furniture is usually made from several materials. A wooden table might have metal brackets, and a wooden chair a fabric or plastics seat. Therefore, in NAICS, furniture initially is classified based on the type of furniture (application for which it is designed) rather than the material used. For example, an upholstered sofa is treated as household furniture, although it may also be used in hotels or offices.

When classifying furniture according to the component material from which it is made, furniture made from more than one material is classified based on the material used in the frame, or if there is no frame, the predominant component material. Upholstered household furniture (excluding kitchen and dining room chairs with upholstered seats) is classified without regard to the frame material. Kitchen or dining room chairs with upholstered seats are classified according to the frame material.

Furniture may be made on a stock or custom basis and may be shipped assembled or unassembled (i.e., knockdown). The manufacture of furniture parts and frames is included in this subsector.

Some of the processes used in furniture manufacturing are similar to processes that are used in other segments of manufacturing. For example, cutting and assembly occurs in the production of wood trusses that are classified in Subsector 321, Wood Product Manufacturing. However, the multiple processes that distinguish wood furniture manufacturing from wood product manufacturing warrant inclusion of wooden furniture manufacturing in the Furniture and Related Product Manufacturing subsector. Metal furniture manufacturing uses techniques that are also employed in the manufacturing of roll-formed products classified in Subsector 332, Fabricated Metal Product Manufacturing. The molding process for plastics furniture is similar to the molding of other plastics products. However, plastics furniture producing establishments tend to specialize in furniture.

NAICS attempts to keep furniture manufacturing together, but there are two notable exceptions: seating for transportation equipment and laboratory and hospital furniture. These exceptions are related to that fact that some of the aspects of the production process for these products, primarily the design, are highly integrated with that of other manufactured goods, namely motor vehicles and health equipment.

3371 HOUSEHOLD AND INSTITUTIONAL FURNITURE AND KITCHEN CABINET MANUFACTURING

This industry group comprises establishments manufacturing household-type furniture, such as living room, kitchen and bedroom furniture and institutional (i.e., public building) furniture, such as furniture for schools, theaters, and churches.

33711 WOOD KITCHEN CABINET AND COUNTERTOP MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing wood or plastics laminated on wood kitchen cabinets, bathroom vanities, and countertops (except freestanding). The cabinets and counters may be made on a stock or custom basis.

337110 WOOD KITCHEN CABINET AND COUNTERTOP MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing wood or plastics laminated on wood kitchen cabinets, bathroom vanities, and countertops (except freestanding). The cabinets and counters may be made on a stock or custom basis.

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33712 HOUSEHOLD AND INSTITUTIONAL FURNITURE MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing household-type and public building furniture (i.e., library, school, theater, and church furniture). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337121 UPHOLSTERED HOUSEHOLD FURNITURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing upholstered household-type furniture. The furniture may be made on a stock or custom basis.

337122 NONUPHOLSTERED WOOD HOUSEHOLD FURNITURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing nonupholstered wood household-type furniture and freestanding cabinets (except television, radio, and sewing machine cabinets). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337124 METAL HOUSEHOLD FURNITURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing metal household-type furniture and freestanding cabinets. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337125 HOUSEHOLD FURNITURE (EXCEPT WOOD AND METAL) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing household-type furniture of materials other than wood or metal, such as plastics, reed, rattan, wicker, and fiberglass. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337127 INSTITUTIONAL FURNITURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing institutional-type furniture (e.g., library, school, theater, and church furniture). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337129 WOOD TELEVISION, RADIO, AND SEWING MACHINE CABINET MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing wood cabinets used as housings by television, stereo, loudspeaker, and sewing machine manufacturers.

3372 OFFICE FURNITURE (INCLUDING FIXTURES) MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing office furniture and/or office and store fixtures. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

33721 OFFICE FURNITURE (INCLUDING FIXTURES) MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing office furniture and/or office and store fixtures. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337211 WOOD OFFICE FURNITURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing wood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337212 CUSTOM ARCHITECTURAL WOODWORK AND MILLWORK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing custom designed interiors consisting of architectural woodwork and fixtures utilizing wood, wood products, and plastics laminates. All of the industry output is made to individual order on a job shop basis and requires skilled craftsmen as a labor input. A job might include custom manufacturing of display fixtures, gondolas, wall shelving units, entrance and window architectural detail, sales and reception counters, wall paneling, and matching furniture.

337214 OFFICE FURNITURE (EXCEPT WOOD) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing nonwood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337215 SHOWCASE, PARTITION, SHELVING, AND LOCKER MANUFACTURING

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

337211 WOOD OFFICE FURNITURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing wood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337214 OFFICE FURNITURE (EXCEPT WOOD) MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing nonwood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

3379 OTHER FURNITURE RELATED PRODUCT MANUFACTURING

This industry group comprises establishments manufacturing furniture related products, such as mattresses, blinds, and shades.

33791 MATTRESS MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing innerspring, box spring, and noninnerspring mattresses, including mattresses for waterbeds.

337910 MATTRESS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing innerspring, box spring, and noninnerspring mattresses, including mattresses for waterbeds.

33792 BLIND AND SHADE MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing one or more of the following: venetian blinds, other window blinds, shades; curtain and drapery rods, poles; and/or curtain and drapery fixtures. The blinds and shades may be made on a stock or custom basis and may be made of any material.

337920 BLIND AND SHADE MANUFACTURING

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

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- 1. venetian blinds, other window blinds, shades;
- 2. curtain and drapery rods, poles; and/or
- 3. curtain and drapery fixtures.

The blinds and shades may be made on a stock or custom basis and may be made of any material.

339 MISCELLANEOUS MANUFACTURING

Industries in the Miscellaneous Manufacturing subsector make a wide range of products that cannot readily be classified in specific NAICS subsectors in manufacturing. Processes used by these establishments vary significantly, both among and within industries. For example, a variety of manufacturing processes are used in manufacturing sporting and athletic goods that include products, such as tennis racquets and golf balls. The processes for these products differ from each other, and the processes differ significantly from the fabrication processes used in making dolls or toys, the melting and shaping of precious metals to make jewelry, and the bending, forming, and assembly used in making medical products.

The industries in this subsector are defined by what is made rather than how it is made. Although individual establishments might be appropriately classified elsewhere in the NAICS structure, for historical continuity, these product-based industries were maintained. In most cases, no one process or material predominates for an industry.

Establishments in this subsector manufacture products as diverse as medical equipment and supplies, jewelry, sporting goods, toys, and office supplies.

3391 MEDICAL EQUIPMENT AND SUPPLIES MANUFACTURING

This industry group comprises establishments primarily engaged in manufacturing medical equipment and supplies. Examples of products made by these establishments are laboratory apparatus and furniture, surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, dentures, and orthodontic appliances.

33911 MEDICAL EQUIPMENT AND SUPPLIES MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing medical equipment and supplies. Examples of products made by these establishments are laboratory apparatus and furniture, surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, dentures, and orthodontic appliances.

339111 LABORATORY APPARATUS AND FURNITURE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing laboratory apparatus and laboratory and hospital furniture (except dental). Examples of products made by these establishments are hospital beds, operating room tables, laboratory balances and scales, furnaces, ovens, centrifuges, cabinets, cases, benches, tables, and stools.

For this industry, the 1997 Economic Census did not fully implement the conversion to NAICS. The data from 1997 to 2001 for NAICS industry 339111 did not include establishments primarily engaged in the manufacture of hospital beds and other hospital furniture. These establishments are included in the 2002 Economic Census data.

339112 SURGICAL AND MEDICAL INSTRUMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing medical, surgical, ophthalmic, and veterinary instruments and apparatus (except electrotherapeutic, electromedical and irradiation apparatus). Examples of products made by these establishments are syringes, hypodermic needles, anesthesia apparatus, blood transfusion equipment, catheters, surgical clamps, and medical thermometers.

339113 SURGICAL APPLIANCE AND SUPPLIES MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing surgical appliances and supplies. Examples of products made by these establishments are orthopedic devices, prosthetic appliances, surgical dressings, crutches, surgical sutures, and personal industrial safety devices (except protective eyewear).

339114 DENTAL EQUIPMENT AND SUPPLIES MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing dental equipment and supplies used by dental laboratories and offices of dentists, such as dental chairs, dental instrument delivery systems, dental hand instruments, and dental impression material and dental cements.

339115 OPHTHALMIC GOODS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing ophthalmic goods. Examples of products made by these establishments are prescription eyeglasses (except manufactured in a retail setting), contact lenses, sunglasses, eyeglass frames, reading glasses made to standard powers, and protective eyewear.

339116 DENTAL LABORATORIES

This U.S. industry comprises establishments primarily engaged in manufacturing dentures, crowns, bridges, and orthodontic appliances customized for individual application.

3399 OTHER MISCELLANEOUS MANUFACTURING

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

- 1. Jewelry and silverware manufacturing;
- 2. Sporting and athletic goods manufacturing;
- 3. Doll, toy, and game manufacturing;
- 4. Office supplies (except paper) manufacturing;
- 5. Sign manufacturing; and/or
- 6. All other miscellaneous manufacturing.

33991 JEWELRY AND SILVERWARE MANUFACTURING

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

- 1. manufacturing, engraving, chasing, or etching jewelry;
- 2. manufacturing metal personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases);
- 3. manufacturing, engraving, chasing, or etching precious metal solid, precious metal clad, or pewter cutlery and flatware;
- 4. manufacturing, engraving, chasing, or etching personal metal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases);
- 5. stamping coins;
- 6. manufacturing unassembled jewelry parts and stock shop products, such as sheet, wire, and tubing:
- 7. cutting, slabbing, tumbling, carving, engraving, polishing, or faceting precious or semiprecious stones and gems;
- 8. recutting, repolishing, and setting gem stones; and

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9. drilling, sawing, and peeling cultured and costume pearls.

339911 JEWELRY (EXCEPT COSTUME) MANUFACTURING

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

- 1. manufacturing, engraving, chasing, or etching precious metal solid or precious metal clad jewelry;
- 2. manufacturing, engraving, chasing, or etching personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases) made of precious solid or clad metal; and
- 3. stamping coins.

339912 SILVERWARE AND HOLLOWWARE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing, engraving, chasing, or etching precious metal solid, precious metal clad, or pewter flatware and other hollowware.

339913 JEWELERS' MATERIAL AND LAPIDARY WORK MANUFACTURING

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

- 1. manufacturing unassembled jewelry parts and stock shop products, such as sheet, wire, and tubing;
- 2. cutting, slabbing, tumbling, carving, engraving, polishing, or faceting precious or semiprecious stones and gems;
- 3. recutting, repolishing, and setting gem stones; and
- 4. drilling, sawing, and peeling cultured pearls.

339914 COSTUME JEWELRY AND NOVELTY MANUFACTURING

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

- 1. manufacturing, engraving, chasing, and etching costume jewelry; and/or
- 2. manufacturing, engraving, chasing, or etching nonprecious metal personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases).

This industry includes establishments primarily engaged in manufacturing precious plated jewelry and precious plated personal goods.

33992 SPORTING AND ATHLETIC GOODS MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing sporting and athletic goods (except apparel and footwear).

339920 SPORTING AND ATHLETIC GOODS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing sporting and athletic goods (except apparel and footwear).

33993 DOLL, TOY, AND GAME MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing dolls, toys, and games, such as complete dolls, doll parts, doll clothes, action figures, toys, games (including electronic), hobby kits, and children's vehicles (except metal bicycles and tricycles).

339931 DOLL AND STUFFED TOY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing complete dolls, doll parts, and doll clothes; action figures; and stuffed toys.

339932 GAME, TOY, AND CHILDREN'S VEHICLE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing games (including electronic), toys, and children's vehicles (except bicycles and metal tricycles).

33994 OFFICE SUPPLIES (EXCEPT PAPER) MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing office supplies. Examples of products made by these establishments are pens, pencils, felt tip markers, crayons, chalk, pencil sharpeners, staplers, hand operated stamps, modeling clay, and inked ribbons.

339941 PEN AND MECHANICAL PENCIL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing pens, ballpoint pen refills and cartridges, mechanical pencils, and felt tipped markers.

339942 LEAD PENCIL AND ART GOOD MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing nonmechanical pencils and art goods. Examples of products made by these establishments are pencil leads, crayons, chalk, framed blackboards, pencil sharpeners, staplers, artists' palettes and paints, and modeling clay.

339943 MARKING DEVICE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing marking devices, such as hand operated stamps, embossing stamps, stamp pads, and stencils.

339944 CARBON PAPER AND INKED RIBBON MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing carbon paper and inked ribbons.

33995 SIGN MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing signs and related displays of all materials (except printing paper and paperboard signs, notices, and displays).

339950 SIGN MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing signs and related displays of all materials (except printing paper and paperboard signs, notices, and displays).

33999 ALL OTHER MISCELLANEOUS MANUFACTURING

This industry comprises establishments primarily engaged in miscellaneous manufacturing (except medical equipment and supplies, jewelry and flatware, sporting and athletic goods, dolls, toys, games, office supplies (except paper), and signs).

339991 GASKET, PACKING, AND SEALING DEVICE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing gaskets, packing, and sealing devices of all materials.

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339992 MUSICAL INSTRUMENT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing musical instruments (except toys).

339993 FASTENER, BUTTON, NEEDLE, AND PIN MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing fasteners, buttons, needles, pins, and buckles (except precious metals or precious and semiprecious stones and gems).

339994 BROOM, BRUSH, AND MOP MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing brooms, mops, and brushes.

339995 BURIAL CASKET MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing burial caskets, cases, and vaults (except concrete).

339999 ALL OTHER MISCELLANEOUS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in miscellaneous manufacturing (except medical equipment and supplies, jewelry and flatware, sporting and athletic goods, dolls, toys, games, office supplies (except paper), musical instruments, fasteners, buttons, needles, pins, brooms, brushes, mops, and burial caskets).

Appendix C. Methodology

SOURCES OF THE DATA

The manufacturing sector includes approximately 350,000 establishments. This number includes those industries in the North American Industry Classification System (NAICS) definition of manufacturing. The amount of information requested from manufacturing establishments was dependent upon a number of factors. The more important considerations were the size of the company and whether it was included in the Annual Survey of Manufactures (ASM).

Establishments in the 2002 Economic Census are divided into those sent report forms and those not sent report forms. The coverage of and the method of obtaining census information from each are described below:

- 1. Establishments sent a report form:
 - a. ASM sample establishments. This group accounts for approximately 15 percent of all manufacturing establishments. The ASM panel covers all the units of large manufacturing establishments, as well as a sample of the medium and smaller establishments. The probability of selection was proportionate to size. For more information, see the Description of the ASM Survey Sample.

In an economic census year, the ASM report form (MA-10000) replaces the first page of the regular census form for those establishments included in the ASM. In addition to information on employment, payroll, and other items normally requested on the regular census form, establishments in the ASM sample were requested to supply additional information on gross book value of assets and capital expenditures. ASM establishments were also requested to provide information on retirements, depreciation, rental payments, and supplemental labor costs. For establishments not included in the ASM, these additional items were estimated using relationships observed in the ASM establishment data. The census statistics for these variables are a sum of the ASM establishment data and the estimated data for non-ASM establishments. ASM establishments were also requested to provide information for selected purchased services. The census statistics for the purchased service items were derived solely from the ASM establishments. See Appendix A. Explanation of Terms, for an explanation of these items. The census part of the report form is 1 of 220 versions containing product, material, and special inquiries. The diversity of manufacturing activities necessitated the use of this many forms to canvass the 473 manufacturing industries. Each form was developed for a group of related industries.

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

The report form also contained a materials-consumed inquiry, which varied from form to form depending on the industries being canvassed. The respondents were asked to review a list of materials generally used in their production processes. From this list, each establishment was requested to identify those materials consumed during the survey year, the cost of each, and, in certain cases, the quantity consumed. Once again, space was provided

for the respondent to describe significant materials not listed on the form.

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

- b. Large and medium establishments (non-ASM). Approximately 30 percent of all manufacturing establishments were included in this group. A variable cutoff, based on administrative-record payroll data and determined on an industry-by-industry basis, was used to select those establishments that were to receive 1 of the 220 economic census manufacturing regular forms. The first page, requesting establishment data for items such as employment and payroll, was standard but did not contain the detailed statistics included on the ASM form. The product, material, and special inquiry sections supplied were based on the historical industry classification of the establishment.
- c. Small single-establishment companies (non-ASM). This group includes approximately 15 percent of all manufacturing establishments. For those industries where application of the variable cutoff for administrative-record cases resulted in a large number of small establishments being included in the mail canvass, an abbreviated "short form" was used. These establishments received 1 of the 31 versions of the short form, which requested summary product and material data and totals but no details on employment, payroll, cost of materials, inventories, and capital expenditures.

Use of the short form has no adverse effect on published totals for the industry statistics, because the same data were collected on the short form as on the long form. However, detailed information on products and materials consumed was not collected on the short form; thus, its use would increase the value of the "not specified by kind" (nsk) categories.

2. Establishments not sent a report form:

a. Small single-establishment companies not sent a report form. Approximately 40 percent of the manufacturing establishments were small single-establishment companies that were excused from filing a census report. Selection of these establishments was based on two factors: annual payroll and the Census Bureau's ability to assign the correct six-digit NAICS industry classification to the establishment. For each six-digit NAICS industry code, an annual payroll cutoff was determined. These cutoffs were derived so that the establishments with payroll less than the cutoff were expected to account for no more than 3 percent of the value of shipments for the industry. Generally, all single-establishment companies with less than 5 employees were excused, while all establishments with more than 20 employees were mailed forms. Establishments below the cutoff that could not be directly assigned a six-digit NAICS code were mailed a classification report that requested information for assigning NAICS industry codes. Establishments below the cutoff that could be directly assigned a six-digit NAICS code were excused from filing any report. For below cutoff establishments, information on the physical location, payroll, and receipts was obtained from the administrative records of other federal agencies under special arrangements that safeguarded their confidentiality.

Estimates of data for these small establishments were developed using industry averages in conjunction with the administrative information. The value of shipments and cost of materials were not distributed among specific products and materials for these establishments, but were included in the product and material "not specified by kind" (nsk) categories.

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

Sometimes the administrative-record cases had only two- or three-digit NAICS group classification codes available in the files. For manufacturing, these establishments were sent a

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separate classification form, which requested information on the products and services of the establishment. This form was used to code many of these establishments to the appropriate six-digit NAICS level. Establishments that did not return the classification form were coded later to those six-digit NAICS industries identified as "All other" industries within the given subsector.

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

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

b. All nonemployers, i.e., all firms subject to federal income tax, with no paid employees, during 2002 are excluded as in previous censuses. Data for nonemployers are not included in this report, but are released in the annual *Nonemployer Statistics* series.

The report forms used to collect information for establishments in this sector are available at help.econ.census.gov/econhelp/resources/.

A more detailed examination of census methodology is presented in the *History of the Economic Census* at www.census.gov/econ/www/history.html.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

The classifications for all establishments covered in the 2002 Economic Census — Manufacturing are classified in 1 of 473 industries in accordance with the industry definitions in the *North American Industry Classification System (NAICS)*, *United States, 2002* manual. There were no changes between the 2002 edition and the 1997 edition affecting this sector. When applicable, Appendix F of this report shows the product class and product comparability between the two systems for data in this report.

In the NAICS system, an industry is generally defined as a group of establishments that have similar production processes. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added by manufacture, value of shipments, and number of employees.

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

For the 2002 Economic Census — Manufacturing, all establishments were classified in particular industries based on the products they produced. If an establishment made products of more than one industry, it was classified in the industry with the largest product value. For 2002, there were no "resistance rules" or "frozen industries."

In ASM years, establishments included in the ASM sample with certainty weights are reclassified by industry only if the change in the primary activity from the prior year is significant or if the change has occurred for 2 successive years. This procedure prevents reclassification when there are minor shifts in product mix.

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

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

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

Establishments frequently make products classified both in their industry (primary products) and other industries (secondary products). Industry statistics (employment, payroll, value added by manufacture, value of shipments, etc.) reflect the activities of the establishments that may make both primary and secondary products. Product statistics, however, represent the output of all establishments without regard for the classification of the producing establishment. For this reason, when relating the industry statistics, especially the value of shipments, to the product statistics, the composition of the industry's output should be considered.

The extent to which industry and product statistics may be matched with each other is measured by the primary product specialization ratio and the coverage ratio. The primary product specialization ratio is the proportion of industry shipments accounted for by the primary products of establishments classified in the industry. The coverage ratio is the proportion of product shipments accounted for by establishments classified in the industry.

ESTABLISHMENT BASIS OF REPORTING

The 2002 Economic Census — Manufacturing is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each location or establishment. The ASM also is conducted on an establishment basis, but separate reports are filed for just those establishments selected in the sample. Companies engaged in distinctly different lines of activity at one location are requested to submit separate reports, if the plant records permit such a separation and if the activities are substantial in size.

In 2002, as in earlier years, a minimum size limit was set for inclusion of establishments in the census. All establishments employing one person or more at any time during the census year are included. The same size limitation has applied since 1947 in censuses and annual surveys of manufactures. In the 1939 and earlier censuses, establishments with less than \$5,000 value of products were excluded. The change in the minimum size limit in 1947 does not appreciably affect the historical comparability of the census figures, except for data on number of establishments for a few industries.

The 2002 Economic Census — Manufacturing excludes data for central administrative offices (CAOs). These would include separately operated administrative offices, warehouses, garages, and other auxiliary units that service manufacturing establishments of the same company. These data are published in a separate report series.

DESCRIPTION OF THE ASM SURVEY SAMPLE

The ASM sample is drawn for the second survey year after a census. The most recent sample was drawn for the 1999 survey year based on the 1997 Economic Census — Manufacturing. This sample will be in place through the 2003 ASM.

In 1997, there were approximately 370,000 individual manufacturing establishments. For sample efficiency and cost considerations, the establishments in the 1997 manufacturing population were partitioned into two components for developing estimates within the ASM. The details of each are described below:

1. Mail stratum. The mail stratum of the survey is comprised of larger single-location manufacturing companies and all manufacturing establishments of multiunit companies (companies

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that operate at more than one physical location). Approximately 200,000 of the 370,000 establishments in the 1997 census were assigned to the mail stratum. On an annual basis, the mail stratum is supplemented with larger, newly active single-location companies identified from a list provided by the Internal Revenue Service (IRS) and new manufacturing locations of multiunit companies identified from the Census Bureau's Company Organization Survey (COS).

For the 1999 survey, a new sample of approximately 58,000 individual establishments was selected from the mail stratum assembled from the 1997 census. Supplemental samples representing both 1998 and 1999 births (newly active establishments that were not included in the 1997 census) were also selected. Establishments selected for the sample are mailed an ASM survey questionnaire for each year through 2003.

The 1999-2003 ASM sample design is similar to the one used since 1984. Companies in the 1997 Economic Census — Manufacturing with manufacturing shipments of at least \$500 million were defined as company certainties. For these large companies, each manufacturing establishment is included in the mail sample. For the 1999-2003 sample, there are approximately 500 certainty companies collectively accounting for over 18,000 establishments.

For the remaining portion of the mail component of the survey, the establishment was defined as the sample unit. All establishments with 250 employees or more were defined as employment certainties. Across these arbitrary certainty classes, there were approximately 25,000 establishments included in the sample with certainty. Collectively, these certainty establishments accounted for approximately 80 percent of the total value of shipments in the 1997 Economic Census — Manufacturing.

Smaller establishments in the remaining portion of the mail stratum were sampled with probabilities ranging from .02 to 1.00. The initial probabilities of selection assigned to these establishments were proportionate to a measure-of-size determined for each establishment. The measure-of-size was a function of the establishment's 1997 industry classification and its 1997 product class data. For each product class (1,755) and six-digit industry (473), a desired reliability constraint was specified. Using a technique developed by Dr. James R. Chromy of the Research Triangle Institute, the initial establishment probabilities were optimized such that the expected sample satisfied all industry and product class reliability constraints, while the sample size was minimized. This technique reduces the likelihood of selecting nonrepresentative samples for individual product classes or industries.

This method of assigning probabilities based on product class shipments is motivated by the Census Bureau's primary desire to produce reliable estimates of both product class and industry shipments. The high correlation between shipments and employment, value-added, and other general statistics assures that these variables will also be well represented by the sample. The actual sample selection procedure uses an independent chance of selection method (Poisson sampling) that permits us to prevent small establishments from being selected in consecutive samples without introducing a bias into the survey estimates.

2. Nonmail stratum. The initial nonmail component of the survey was comprised of approximately 170,000 small, single-establishment companies that were tabulated as administrative records in the 1997 Economic Census — Manufacturing. The nonmail stratum is also supplemented annually using the list of newly active single-location companies provided by the Internal Revenue Service (IRS) and payroll cutoffs. Companies with payroll below the payroll cutoff are added to the nonmail stratum. For this portion of the population, sampling is not used. The data for this group are estimated based on selected information obtained annually from the administrative records of the IRS and Social Security Administration (SSA). This administrative information, which includes payroll, total employment, industry classification, and physical location, is obtained under conditions which safeguard the confidentiality of both tax and census records.

RELIABILITY OF DATA

All data compiled in the economic census are subject to nonsampling errors. Nonsampling errors can be attributed to many sources during the development or execution of the census. The following are two ways that further explain this method: ASM Estimating Procedure. Most of the ASM

estimates derived for the mail stratum are computed using a difference estimator. At the establishment level, there is a strong correlation between the current-year data values and the corresponding 1997 (base) data values. Therefore, within the mailed stratum, for each item at each level of aggregation, an estimate of the "difference" between the current year and the base year is computed from sample cases and added to the corresponding base-year values. For the 1998-2002 ASM estimates, the 1997 Economic Census — Manufacturing values serve as the base year. For the 2003 ASM, the base will be updated to be the 2002 Economic Census — Manufacturing.

Due to the positive year-to-year correlation, estimates derived using this methodology are generally more reliable than comparable estimates developed from the current sample data alone. Estimates for the capital expenditures variables are not generated using the difference estimator because the year-to-year correlations are considerably weaker. The standard linear estimator is used for these variables.

For the nonmail stratum, estimates for payroll and employment are directly tabulated from the administrative-record data provided by IRS and SSA. Estimates of data other than payroll and employment are developed from industry averages. Although the nonmail stratum contained approximately 170,000 individual establishments in 1999, it accounts for less than 2 percent of the estimate for total value of shipments at the total manufacturing level.

Corresponding estimates for the mail and nonmail components are combined to produce the estimates included in this publication. ASM Data Qualifications. The estimates developed from the sample are apt to differ somewhat from the results of a survey covering all companies in the sample lists, but otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

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

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

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

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

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

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

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

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

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables in this publication having an associated standard error exceeding 15 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

DUPLICATION IN COST OF MATERIALS AND VALUE OF SHIPMENTS

Data for cost of materials and value of shipments include varying amounts of duplication, especially at higher levels of aggregation. This is because the products of one establishment may be the materials of another. The value added statistics avoid this duplication and are, for most purposes, the best measure for comparing the relative economic importance of industries and geographic areas.

VALUE OF INDUSTRY SHIPMENTS COMPARED WITH VALUE OF PRODUCT SHIPMENTS

The 2002 Economic Census — Manufacturing shows value of shipments data for industries and products. In the industry statistics tables and files, these data represent the total value of shipments of all establishments classified in a particular industry. The data include the shipments of the products classified in the industry (primary to the industry), products classified in other industries (secondary to the industry), and miscellaneous receipts (repair work, sale of scrap, research and development, installation receipts, and resales). Value of product shipments shown in the products statistics tables and files represent the total value of all products shipped that are classified as primary to an industry regardless of the classification of the producing establishment.

DISCLOSURE

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

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

OKLAHOMA

Bartlesville is in Osage and Washington Counties.

Bixby is in Tulsa and Wagoner Counties.

Blanchard is in Grady and McClain Counties; it is now tabulated separately due to a population increase. This change deletes territory from the Balances of Grady and McClain Counties.

Broken Arrow is in Tulsa and Wagoner Counties.

Catoosa is in Rogers and Wagoner Counties.

Clinton is in Custer and Washita Counties.

Collinsville is in Rogers and Tulsa Counties.

Commerce is now tabulated separately due to a population increase. This change deletes territory from the Balance of Ottawa County.

Davis is in Garvin and Murray Counties.

Drumright is in Creek and Payne Counties.

Fort Gibson is in Cherokee and Muskogee Counties; it annexed into Cherokee County before 1990, but this change was not submitted to the Census Bureau until May 2000. This change deletes territory from the Balance of Cherokee County.

Hollis is no longer tabulated separately due to a population decrease. This change adds territory to the Balance of Harmon County.

Hominy is now tabulated separately due to a population increase. This change deletes territory from the Balance of Osage County.

Jones is now tabulated separately due to a population increase. This change deletes territory from the Balance of Oklahoma County.

Marietta is no longer tabulated separately due to a population decrease. This change adds territory to the Balance of Love County.

Oklahoma City is in Canadian, Cleveland, Oklahoma, and Pottawatomie Counties.

Owasso is in Rogers and Tulsa Counties.

Piedmont is in Canadian and Kingfisher Counties.

Ponca City is in Kay and Osage Counties.

Purcell is in Cleveland and McClain Counties.

Sand Springs is in Osage and Tulsa Counties.

Skiatook is in Osage and Tulsa Counties.

Slaughterville is now tabulated separately due to a population increase. This change deletes territory from the Balance of Cleveland County.

Stroud is in Creek and Lincoln Counties.

Tulsa is in Osage, Rogers, Tulsa, and Wagoner Counties; it annexed into Wagoner County in December 2001. This change deletes territory from the Balance of Wagoner County.

Balance of Cherokee County lost territory due to the annexation of Fort Gibson into the county.

Balance of Cleveland County no longer includes Slaughterville, which is tabulated separately due to a population increase.

Balance of Grady County no longer includes Blanchard (part), which is tabulated separately due to a population increase.

Balance of Harmon County includes Hollis, which is no longer tabulated separately due to a population decrease.

Balance of Love County includes Marietta, which is no longer tabulated separately due to a population decrease.

Balance of McClain County no longer includes Blanchard (part), which is tabulated separately due to a population increase.

Balance of Oklahoma County no longer includes Jones, which is tabulated separately due to a population increase.

Balance of Osage County no longer includes Hominy, which is tabulated separately due to a population increase.

Balance of Ottawa County no longer includes Commerce, which is tabulated separately due to a population increase.

Balance of Wagoner County lost territory due to the annexation of Tulsa into the county.

Appendix E. Metropolitan and Micropolitan Statistical Areas

OKLAHOMA CITY-SHAWNEE, OK COMBINED STATISTICAL AREA

Oklahoma City, OK Metropolitan Statistical Area

Canadian County, OK

Cleveland County, OK

Grady County, OK

Lincoln County, OK

Logan County, OK

McClain County, OK

Oklahoma County, OK

Shawnee, OK Micropolitan Statistical Area

Pottawatomie County, OK

TULSA-BARTLESVILLE, OK COMBINED STATISTICAL AREA

Bartlesville, OK Micropolitan Statistical Area

Washington County, OK

Tulsa, OK Metropolitan Statistical Area

Creek County, OK

Okmulgee County, OK

Osage County, OK

Pawnee County, OK

Rogers County, OK

Tulsa County, OK

Wagoner County, OK

ADA, OK MICROPOLITAN STATISTICAL AREA

Pontotoc County, OK

ALTUS, OK MICROPOLITAN STATISTICAL AREA

Jackson County, OK

ARDMORE, OK MICROPOLITAN STATISTICAL AREA

Carter County, OK

Love County, OK

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DUNCAN, OK MICROPOLITAN STATISTICAL AREA

Stephens County, OK

DURANT, OK MICROPOLITAN STATISTICAL AREA

Bryan County, OK

ENID, OK MICROPOLITAN STATISTICAL AREA

Garfield County, OK

FORT SMITH, AR-OK METROPOLITAN STATISTICAL AREA

Crawford County, AR

Franklin County, AR

Sebastian County, AR

Le Flore County, OK

Sequoyah County, OK

GUYMON, OK MICROPOLITAN STATISTICAL AREA

Texas County, OK

LAWTON, OK METROPOLITAN STATISTICAL AREA

Comanche County, OK

MCALESTER, OK MICROPOLITAN STATISTICAL AREA

Pittsburg County, OK

MIAMI, OK MICROPOLITAN STATISTICAL AREA

Ottawa County, OK

MUSKOGEE, OK MICROPOLITAN STATISTICAL AREA

Muskogee County, OK

PONCA CITY, OK MICROPOLITAN STATISTICAL AREA

Kay County, OK

STILLWATER, OK MICROPOLITAN STATISTICAL AREA

Payne County, OK

TAHLEQUAH, OK MICROPOLITAN STATISTICAL AREA

Cherokee County, OK

WOODWARD, OK MICROPOLITAN STATISTICAL AREA

Woodward County, OK