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1997 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 assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

ALL-NEW INDUSTRY CLASSIFICATIONS

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

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

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

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

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

RELATIONSHIP TO SIC

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

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

GEOGRAPHIC AREA CODING

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

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

BASIS OF REPORTING

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

DOLLAR VALUES

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

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

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

Special Tabulations

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

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

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

HISTORICAL INFORMATION

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

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

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

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

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

SOURCES FOR MORE INFORMATION

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

ABBREVIATIONS AND SYMBOLS

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

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

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

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Manufacturing

SCOPE

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

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

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

GENERAL

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

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

State reports, which include the District of Columbia, present similar statistics at the “all manufacturing” level for each state and its metropolitan areas (MAs) with 250

employees or more, and for counties, consolidated cities, and places with 500 employees or more. The state reports also include six-digit NAICS level data for industries with 100 employees or more in the state.

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

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

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

The Location of Manufacturing data files contain statistics on the number of establishments for the three- and six-digit NAICS industry by state, county, place, and ZIP Code by employment-size of the establishment.

GEOGRAPHIC AREAS COVERED

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

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

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

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

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

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

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

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

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

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

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

DISCLOSURE

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

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

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The Census Bureau conducts the Annual Survey of Manufactures (ASM) in each of the 4 years between the economic censuses. The ASM is a probability-based sample of approximately 58,000 establishments and collects many of the same industry statistics (including employment, payroll, value of shipments, etc.) as the economic census. However, there are selected statistics not included in the ASM. Among these are the number of companies and establishments, detailed product and materials data, and substate geographic data.

In addition to the ASM, the Census Bureau conducts a Current Industrial Reports (CIR) program. The CIR publishes detailed product statistics for selected manufacturing industries at the U.S. level annually and, in some cases, monthly and/or quarterly. For the 1997 Economic Census – Manufacturing, the annual CIR data are included in the Product Summary report.

The Census Bureau also conducts the monthly Manufacturers' Shipments, Inventories, and Orders (M3) program, which publishes detailed statistics for manufacturing industries at the U.S. level.

Table 1. Industry Statistics for the State: 1997

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
MASSACHUSETTS													
31-33	Manufacturing	1	9 554	3 313	417 135	16 378 989	257 050	520 770	7 734 767	44 337 768	33 635 803	77 876 576	3 483 886
311	Food mfg.....	1	755	193	21 074	586 147	13 476	25 312	313 546	1 996 830	2 577 356	4 581 149	128 966
3111	Animal food mfg.....	-	9	3	292	9 762	161	331	3 828	29 005	52 825	81 363	1 605
31111	Animal food mfg.....	-	9	3	292	9 762	161	331	3 828	29 005	52 825	81 363	1 605
311111	Dog & cat food mfg....	-	3	2	c	D	D	D	D	D	D	D	D
311119	Other animal food mfg.....	-	6	1	c	D	D	D	D	D	D	D	D
3112	Grain & oilseed milling	2	12	3	306	12 512	239	599	9 420	42 441	85 322	128 719	7 455
31123	Breakfast cereal mfg....	1	5	1	c	D	D	D	D	D	D	D	D
311230	Breakfast cereal mfg..	1	5	1	c	D	D	D	D	D	D	D	D
3113	Sugar & confectionery product mfg.....	-	61	16	1 594	34 807	1 268	2 147	24 568	148 717	128 953	279 126	10 245
31132	Chocolate & confectionery mfg from cacao beans.....	-	6	1	c	D	D	D	D	D	D	D	1 376
311320	Chocolate & confectionery mfg from cacao beans ...	-	6	1	c	D	D	D	D	D	D	D	1 376
31133	Confectionery mfg from purchased chocolate...	-	37	10	915	18 216	760	1 151	13 657	106 847	60 234	164 198	1 274
311330	Confectionery mfg from purchased chocolate.....	-	37	10	915	18 216	760	1 151	13 657	106 847	60 234	164 198	1 274
31134	Nonchocolate confectionery mfg.....	2	17	5	492	11 376	395	716	7 050	28 216	22 633	55 386	7 595
311340	Nonchocolate confectionery mfg ...	2	17	5	492	11 376	395	716	7 050	28 216	22 633	55 386	7 595
3114	Fruit & vegetable preserving & specialty food mfg.....	5	32	12	743	17 422	639	1 135	12 413	51 632	66 163	117 842	4 505
31141	Frozen food mfg.....	6	18	8	442	9 495	389	644	6 434	23 881	25 807	49 715	2 290
311412	Frozen specialty food mfg.....	5	15	8	422	9 213	372	623	6 214	22 891	24 565	47 441	2 185
31142	Fruit & vegetable canning, pickling, & drying.....	5	14	4	301	7 927	250	491	5 979	27 751	40 356	68 127	2 215
311421	Fruit & vegetable canning.....	4	11	3	e	D	D	D	D	D	D	D	D
3115	Dairy product mfg.....	-	51	19	4 063	158 905	2 178	4 731	72 477	410 972	825 030	1 234 565	32 495
31151	Dairy product (except frozen) mfg.....	-	22	10	2 434	85 311	1 397	3 131	49 902	218 638	559 392	776 963	23 756
311511	Fluid milk mfg.....	-	18	9	g	D	D	D	D	D	D	D	D
311514	Dry, condensed, & evaporated dairy product mfg.....	-	2	1	c	D	D	D	D	D	D	D	D
31152	Ice cream & frozen dessert mfg.....	-	29	9	1 629	73 594	781	1 600	22 575	192 334	265 638	457 602	8 739
311520	Ice cream & frozen dessert mfg.....	-	29	9	1 629	73 594	781	1 600	22 575	192 334	265 638	457 602	8 739
3116	Meat product mfg.....	1	45	22	2 098	54 636	1 449	3 267	29 935	157 416	337 694	497 325	10 660
31161	Animal slaughtering & processing.....	1	45	22	2 098	54 636	1 449	3 267	29 935	157 416	337 694	497 325	10 660
311611	Animal (except poultry) slaughtering.....	7	11	5	e	D	D	D	D	D	D	D	D
311612	Meat processed from carcasses.....	-	26	10	1 192	31 061	779	1 813	15 836	113 164	199 489	314 713	7 033
311613	Rendering & meat byproduct processing.....	2	3	2	c	D	D	D	D	D	D	D	D
311615	Poultry processing....	-	5	5	439	10 222	381	848	8 046	17 970	68 534	86 412	1 452
3117	Seafood product preparation & packaging..	1	43	14	2 116	59 445	1 354	2 491	31 649	218 967	421 370	639 641	10 224
31171	Seafood product preparation & packaging.....	1	43	14	2 116	59 445	1 354	2 491	31 649	218 967	421 370	639 641	10 224
311712	Fresh & frozen seafood processing..	1	37	14	2 102	58 885	1 348	2 477	31 447	217 480	418 111	634 893	10 121
3118	Bakeries & tortilla mfg.....	1	436	74	7 400	162 971	4 615	7 723	92 309	581 674	292 418	883 970	30 615
31181	Bread & bakery product mfg.....	1	413	68	6 741	142 720	4 185	7 000	83 285	527 592	244 942	772 776	29 025
311811	Retail bakeries.....	4	278	19	2 002	24 254	1 168	1 363	12 112	52 078	28 416	80 660	2 417
311812	Commercial bakeries .	1	121	44	4 371	109 652	2 757	5 120	65 695	453 649	199 441	652 957	25 413
311813	Frozen cakes, pies, & other pastries mfg ...	1	14	5	368	8 814	260	517	5 478	21 865	17 085	39 159	1 195
31182	Cookie, cracker, & pasta mfg.....	-	21	6	f	D	D	D	D	D	D	D	D
311821	Cookie & cracker mfg .	1	7	2	c	D	D	D	D	D	D	D	D
311822	Flour mixes & dough mfg from purchased flour.....	-	4	2	247	8 773	140	292	3 694	12 056	19 799	31 522	513
311823	Dry pasta mfg.....	1	10	2	280	8 349	208	326	3 931	34 558	21 400	66 032	773

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
MASSACHUSETTS—Con.													
31-33	Manufacturing—Con.												
311	Food mfg—Con.												
3119	Other food mfg	1	66	30	2 462	75 687	1 573	2 888	36 947	356 006	367 581	718 598	21 162
31191	Snack food mfg	1	17	11	613	19 709	413	764	10 238	78 318	75 818	150 663	4 944
311911	Roasted nuts & peanut butter mfg	—	5	3	206	6 310	117	244	2 656	21 305	44 822	62 828	2 305
311919	Other snack food mfg	2	12	8	407	13 399	296	520	7 582	57 013	30 996	87 835	2 639
31192	Coffee & tea mfg	1	9	4	436	16 040	143	293	4 443	70 523	101 925	171 015	4 096
311920	Coffee & tea mfg	1	9	4	436	16 040	143	293	4 443	70 523	101 925	171 015	4 096
31194	Seasoning & dressing mfg	—	12	5	607	19 924	426	871	10 429	123 749	122 962	246 676	5 939
311941	Mayonnaise, dressing, & other prepared sauce mfg	—	8	3	479	16 357	346	739	8 429	116 407	112 022	228 430	D
311942	Spice & extract mfg	7	4	2	128	3 567	80	132	2 000	7 342	10 940	18 246	D
31199	All other food mfg	—	24	10	784	19 431	578	942	11 472	80 984	64 456	145 346	5 978
311991	Perishable prepared food mfg	—	10	5	322	8 394	221	406	4 378	19 152	21 460	40 528	4 368
311999	All other miscellaneous food mfg	—	14	5	462	11 037	357	536	7 094	61 832	42 996	104 818	1 610
312	Beverage & tobacco product mfg	1	51	13	2 715	101 996	1 314	3 034	50 607	566 395	631 836	1 201 173	35 619
3121	Beverage mfg	1	51	13	2 715	101 996	1 314	3 034	50 607	566 395	631 836	1 201 173	35 619
31211	Soft drink & ice mfg	—	26	9	2 069	70 040	850	1 906	28 983	358 664	465 522	824 363	22 834
312111	Soft drink mfg	—	16	8	1 885	63 721	792	1 782	27 331	338 495	460 431	799 100	D
312112	Bottled water mfg	—	2	1	c	D	D	D	D	D	D	D	D
31212	Breweries	—	20	3	e	D	D	D	D	D	D	D	D
312120	Breweries	—	20	3	e	D	D	D	D	D	D	D	D
31214	Distilleries	9	2	1	c	D	D	D	D	D	D	D	D
312140	Distilleries	9	2	1	c	D	D	D	D	D	D	D	D
313	Textile mills	1	151	83	12 509	420 072	9 722	22 221	263 862	958 873	888 066	1 843 194	226 988
3131	Fiber, yarn, & thread mills	1	17	7	673	19 124	592	1 270	15 349	41 361	63 074	104 977	5 409
31311	Fiber, yarn, & thread mills	1	17	7	673	19 124	592	1 270	15 349	41 361	63 074	104 977	5 409
313111	Yarn spinning mills	1	11	4	465	12 622	429	891	11 639	27 484	46 026	73 756	4 584
313112	Yarn texturing, throwing, & twisting mills	2	2	1	c	D	D	D	D	D	D	D	D
3132	Fabric mills	2	62	34	5 194	159 163	4 150	9 594	107 776	287 150	309 770	600 948	40 565
31321	Broadwoven fabric mills	1	22	11	3 274	101 729	2 697	6 458	73 280	175 142	186 680	368 300	29 135
313210	Broadwoven fabric mills	1	22	11	3 274	101 729	2 697	6 458	73 280	175 142	186 680	368 300	29 135
31322	Narrow fabric mills & schiffli machine embroidery	4	21	9	484	10 769	387	794	6 663	22 406	12 361	32 951	962
313221	Narrow fabric mills	3	18	9	469	10 453	373	768	6 428	21 859	12 020	32 063	892
31323	Nonwoven fabric mills	3	13	10	923	30 235	654	1 505	16 556	57 704	81 544	138 914	7 055
313230	Nonwoven fabric mills	3	13	10	923	30 235	654	1 505	16 556	57 704	81 544	138 914	7 055
31324	Knit fabric mills	2	6	4	513	16 430	412	837	11 277	31 898	29 185	60 783	3 413
313241	Weft knit fabric mills	—	3	2	e	D	D	D	D	D	D	D	D
313249	Other knit fabric & lace mills	4	3	2	c	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	—	72	42	6 642	241 785	4 980	11 357	140 737	630 362	515 222	1 137 269	181 014
31331	Textile & fabric finishing mills	1	48	25	5 220	184 409	3 993	9 112	108 782	499 133	322 442	813 823	174 343
313311	Broadwoven fabric finishing mills	1	37	19	2 991	104 611	2 144	5 036	64 850	286 022	197 514	485 418	D
313312	Textile & fabric finishing mills	—	11	6	2 229	79 798	1 849	4 076	43 932	213 111	124 928	328 405	D
31332	Fabric coating mills	—	24	17	1 422	57 376	987	2 245	31 955	131 229	192 780	323 446	6 671
313320	Fabric coating mills	—	24	17	1 422	57 376	987	2 245	31 955	131 229	192 780	323 446	6 671
314	Textile product mills	2	216	54	4 907	118 473	3 844	7 242	71 437	260 880	287 352	542 103	16 144
3141	Textile furnishings mills	4	86	23	2 273	44 019	1 842	3 498	28 195	114 142	117 618	228 887	1 986
31411	Carpet & rug mills	1	9	3	167	4 595	105	216	2 727	11 025	16 480	27 381	114
314110	Carpet & rug mills	1	9	3	167	4 595	105	216	2 727	11 025	16 480	27 381	114
31412	Curtain & linen mills	4	77	20	2 106	39 424	1 737	3 282	25 468	103 117	101 138	201 506	1 872
314121	Curtain & drapery mills	6	64	14	1 713	30 829	1 405	2 742	20 843	70 099	72 719	141 753	1 583
314129	Other household textile product mills	—	13	6	393	8 595	332	540	4 625	33 018	28 419	59 753	289
3149	Other textile product mills	—	130	31	2 634	74 454	2 002	3 744	43 242	146 738	169 734	313 216	14 158
31491	Textile bag & canvas mills	1	48	6	440	10 960	333	613	6 734	20 139	23 931	44 604	1 258
314912	Canvas & related product mills	1	44	6	426	10 741	322	598	6 610	19 743	23 524	43 801	1 243
31499	All other textile product mills	—	82	25	2 194	63 494	1 669	3 131	36 508	126 599	145 803	268 612	12 900
314991	Rope, cordage, & twine mills	—	7	1	161	4 501	130	250	2 816	11 528	9 965	22 297	225
314999	All other miscellaneous textile product mills	—	75	24	2 033	58 993	1 539	2 881	33 692	115 071	135 838	246 315	12 675

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS— Con. Manufacturing— Con.												
315	Apparel mfg	3	238	104	10 369	221 238	8 636	16 047	145 999	432 105	497 950	912 367	9 017
3152	Cut & sew apparel mfg	3	187	91	9 655	205 797	8 053	15 043	136 722	398 881	460 919	839 871	8 483
31521	Cut & sew apparel contractors	4	95	40	2 795	43 066	2 612	4 450	36 453	63 223	11 262	74 482	1 474
315211	Men's & boys' cut & sew apparel contractors	—	5	4	316	5 704	295	466	4 767	7 763	895	8 642	171
315212	Women's, girls', & infants' cut & sew apparel contractors	5	90	36	2 479	37 362	2 317	3 984	31 686	55 460	10 367	65 840	1 303
31522	Men's & boys' cut & sew apparel mfg	4	28	18	3 758	80 807	3 216	6 611	61 442	156 168	177 391	330 544	3 189
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	4	16	12	2 918	68 452	2 434	5 350	51 264	125 225	157 848	279 951	2 393
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	5	5	3	339	6 012	305	523	4 230	14 090	8 432	22 319	398
315224	Men's & boys' cut & sew trouser, slack, & jean mfg	9	2	2	e	D	D	D	D	D	D	D	D
315228	Men's & boys' cut & sew other outerwear mfg	2	4	1	c	D	D	D	D	D	D	D	D
31523	Women's & girls' cut & sew apparel mfg	1	46	29	2 793	76 858	1 963	3 502	35 375	168 473	261 586	413 269	3 417
315231	Women's & girls' cut/ sew lingerie & nightwear mfg	8	3	3	e	D	D	D	D	D	D	D	D
315232	Women's & girls' cut & sew blouse & shirt mfg	1	7	1	c	D	D	D	D	D	D	D	D
315233	Women's & girls' cut & sew dress mfg	5	8	5	331	7 615	242	439	4 127	13 594	14 242	27 302	266
315234	Women's & girls' cut & sew suit, coat, skirt mfg	—	14	13	1 502	49 402	998	1 724	19 877	96 450	163 681	251 584	2 315
315239	Women's & girls' cut & sew other outerwear mfg	—	14	7	473	13 195	317	609	6 392	44 899	71 562	108 761	606
31529	Other cut & sew apparel mfg	7	18	4	309	5 066	262	480	3 452	11 017	10 680	21 576	403
315299	All other cut & sew apparel mfg	8	13	2	234	3 848	207	368	2 620	7 611	6 759	14 324	251
3159	Apparel accessories & other apparel mfg	1	47	12	631	14 108	505	853	8 109	31 061	36 550	70 038	511
31599	Apparel accessories & other apparel mfg	1	47	12	631	14 108	505	853	8 109	31 061	36 550	70 038	511
315991	Hat, cap, & millinery mfg	1	8	4	153	2 686	137	236	2 161	3 551	2 959	6 233	D
315999	Other apparel accessories & other apparel mfg	1	35	7	432	10 693	329	566	5 497	26 790	32 867	62 355	322
316	Leather & allied product mfg	1	112	38	3 800	86 345	2 969	5 840	56 028	303 315	221 441	520 296	10 480
3161	Leather & hide tanning & finishing	3	33	6	450	14 260	366	793	9 402	46 377	44 688	89 273	1 046
31611	Leather & hide tanning & finishing	3	33	6	450	14 260	366	793	9 402	46 377	44 688	89 273	1 046
316110	Leather & hide tanning & finishing	3	33	6	450	14 260	366	793	9 402	46 377	44 688	89 273	1 046
3162	Footwear mfg	—	18	9	1 676	34 702	1 233	2 361	22 730	162 569	117 250	277 425	5 840
31621	Footwear mfg	—	18	9	1 676	34 702	1 233	2 361	22 730	162 569	117 250	277 425	5 840
316211	Rubber & plastics footwear mfg	—	4	2	f	D	D	D	D	D	D	D	D
316213	Men's footwear (except athletic) mfg	1	4	1	c	D	D	D	D	D	D	D	D
316214	Women's footwear (except athletic) mfg	—	5	2	e	D	D	D	D	D	D	D	D
316219	Other footwear mfg	1	5	4	604	11 674	533	936	8 651	18 081	23 870	45 168	1 719
3169	Other leather & allied product mfg	1	61	23	1 674	37 383	1 370	2 686	23 896	94 369	59 503	153 598	3 594
31699	Other leather & allied product mfg	1	61	23	1 674	37 383	1 370	2 686	23 896	94 369	59 503	153 598	3 594
316991	Luggage mfg	—	6	3	166	3 566	145	275	2 360	5 245	4 087	9 331	D
316992	Women's handbag & purse mfg	4	10	3	280	7 625	229	487	5 174	22 144	9 046	31 017	D
316993	Personal leather good (except women's handbag & purse) mfg	—	12	6	539	10 141	423	829	6 302	26 507	19 424	45 944	819
316999	All other leather good mfg	1	33	11	689	16 051	573	1 095	10 060	40 473	26 946	67 306	1 997

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS— Con. Manufacturing— Con.												
321	Wood product mfg	2	230	39	2 874	75 478	2 123	4 164	47 805	161 462	237 147	398 248	9 896
3211	Sawmills & wood preservation	1	43	10	504	11 431	386	710	8 242	27 521	97 590	125 084	2 437
32111	Sawmills & wood preservation	1	43	10	504	11 431	386	710	8 242	27 521	97 590	125 084	2 437
321113	Sawmills	3	37	8	415	9 363	317	587	6 931	21 539	25 118	45 903	2 018
3212	Veneer, plywood, & engineered wood product mfg	1	12	2	144	3 910	98	197	2 284	10 289	9 689	19 974	857
32121	Veneer, plywood, & engineered wood product mfg	1	12	2	144	3 910	98	197	2 284	10 289	9 689	19 974	857
321214	Truss mfg	1	7	2	112	2 960	81	161	1 812	7 689	7 431	15 059	653
3219	Other wood product mfg	3	175	27	2 226	60 137	1 639	3 257	37 279	123 652	129 868	253 190	6 602
32191	Millwork	2	65	7	644	18 802	459	874	11 072	33 854	42 213	76 219	1 743
321911	Wood window & door mfg	2	35	4	399	11 680	279	551	6 877	20 772	30 569	51 422	861
321918	Other millwork (including flooring)	4	20	2	175	5 775	116	236	3 043	10 281	9 520	19 930	783
32192	Wood container & pallet mfg	3	51	7	608	15 635	478	948	10 696	35 096	33 294	68 358	1 734
321920	Wood container & pallet mfg	3	51	7	608	15 635	478	948	10 696	35 096	33 294	68 358	1 734
32199	All other wood product mfg	4	59	13	974	25 700	702	1 435	15 511	54 702	54 361	108 613	3 125
321992	Prefabricated wood building mfg	9	7	2	173	6 697	130	248	4 045	13 477	19 791	33 430	683
321999	All other miscellaneous wood product mfg	1	52	11	801	19 003	572	1 187	11 466	41 225	34 570	75 183	2 442
322	Paper mfg	—	233	166	19 292	711 589	13 828	30 457	427 301	1 955 643	2 129 235	4 041 584	151 892
3221	Pulp, paper, & paperboard mills	—	28	26	4 209	177 207	2 916	6 581	112 561	576 966	519 324	1 099 731	57 129
32212	Paper mills	—	22	20	3 513	147 787	2 382	5 369	90 806	479 922	427 152	909 768	51 112
322121	Paper (except newsprint) mills	—	22	20	3 513	147 787	2 382	5 369	90 806	479 922	427 152	909 768	51 112
32213	Paperboard mills	—	6	6	696	29 420	534	1 212	21 755	97 044	92 172	189 963	6 017
322130	Paperboard mills	—	6	6	696	29 420	534	1 212	21 755	97 044	92 172	189 963	6 017
3222	Converted paper product mfg	—	205	140	15 083	534 382	10 912	23 876	314 740	1 378 677	1 609 911	2 941 853	94 763
32221	Paperboard container mfg	—	92	71	6 092	206 668	4 626	9 759	125 957	438 670	542 286	976 710	41 602
322211	Corrugated & solid fiber box mfg	—	39	29	2 971	108 855	2 147	4 526	60 738	216 615	319 022	533 580	18 395
322212	Folding paperboard box mfg	1	23	17	1 782	61 697	1 406	3 069	41 277	137 591	129 734	265 889	14 964
322213	Setup paperboard box mfg	—	16	12	732	18 456	569	1 155	11 236	41 827	38 041	78 791	D
322214	Fiber can, tube, drum, & similar products mfg	—	12	11	f	D	D	D	D	D	D	D	4 064
322215	Nonfolding sanitary food container mfg	—	2	2	c	D	D	D	D	D	D	D	D
32222	Paper bag & coated & treated paper mfg	—	44	30	4 253	176 622	2 793	6 520	94 935	453 138	630 837	1 086 838	39 296
322221	Coated & laminated packaging paper & plastics film mfg	—	3	3	315	14 613	232	641	8 406	60 097	123 767	183 346	13 103
322222	Coated & laminated paper mfg	—	37	23	3 674	154 798	2 349	5 416	81 099	374 504	481 385	859 891	25 728
322224	Uncoated paper & multiwall bag mfg	—	2	2	c	D	D	D	D	D	D	D	D
32223	Stationery product mfg	—	39	22	3 303	103 262	2 348	5 112	65 014	337 652	333 182	623 755	7 664
322231	Die-cut paper & paperboard office supplies mfg	—	11	5	978	33 397	756	1 873	20 669	85 249	113 986	175 429	848
322232	Envelope mfg	1	15	11	1 502	47 603	1 134	2 346	34 060	106 676	124 935	231 175	4 560
322233	Stationery, tablet, & related product mfg	—	13	6	823	22 262	458	893	10 285	145 727	94 261	217 151	2 256
32229	Other converted paper product mfg	1	30	17	1 435	47 830	1 145	2 485	28 834	149 217	103 606	254 550	6 201
322299	All other converted paper product mfg	1	28	16	g	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS— Con. Manufacturing— Con.												
323	Printing & related support activities.....	2	1 164	254	23 145	800 735	16 829	33 423	503 302	1 686 929	1 037 187	2 729 867	122 120
3231	Printing & related support activities.....	2	1 164	254	23 145	800 735	16 829	33 423	503 302	1 686 929	1 037 187	2 729 867	122 120
32311	Printing.....	2	1 013	221	20 919	725 539	15 122	30 022	450 241	1 553 463	993 320	2 550 203	108 599
323110	Commercial lithographic printing ..	2	490	128	11 486	425 727	8 063	16 078	257 883	824 940	540 877	1 367 422	70 454
323112	Commercial flexographic printing .	3	18	8	420	14 842	281	558	7 225	28 564	21 415	50 048	1 304
323113	Commercial screen printing.....	5	111	28	2 239	70 383	1 641	3 101	44 601	131 215	94 597	225 921	8 745
323114	Quick printing.....	2	232	11	1 474	39 882	1 039	1 833	24 697	85 865	49 582	135 309	4 993
323115	Digital printing.....	3	17	3	e	D	D	D	D	D	D	D	D
323116	Manifold business form printing.....	—	19	9	912	33 241	681	1 370	22 481	135 239	66 891	203 023	2 350
323117	Book printing.....	3	25	18	2 225	75 601	1 759	3 612	51 397	155 611	94 606	250 849	8 789
323118	Blankbook, looseleaf binder, & device mfg .	—	9	6	712	20 459	576	1 393	14 463	82 188	46 133	128 639	3 911
323119	Other commercial printing.....	3	88	9	1 116	35 562	844	1 584	21 326	71 841	54 366	126 299	5 012
32312	Support activities for printing.....	1	151	33	2 226	75 196	1 707	3 401	53 061	133 466	43 867	179 664	13 521
323121	Tradebinding & related work.....	1	43	13	1 027	28 015	831	1 636	21 421	52 528	15 499	67 970	4 406
323122	Prepress services.....	1	108	20	1 199	47 181	876	1 765	31 640	80 938	28 368	111 694	9 115
324	Petroleum & coal products mfg.....	1	54	12	1 260	50 950	824	1 840	32 407	137 145	227 927	363 204	14 144
3241	Petroleum & coal products mfg.....	1	54	12	1 260	50 950	824	1 840	32 407	137 145	227 927	363 204	14 144
32412	Asphalt paving, roofing, & saturated materials mfg.....	1	47	9	1 114	44 346	735	1 659	29 640	116 322	206 923	321 579	13 448
324121	Asphalt paving mixture & block mfg.....	1	41	5	715	30 669	445	1 045	21 444	87 294	162 487	249 566	10 031
324122	Asphalt shingle & coating materials mfg.....	—	6	4	399	13 677	290	614	8 196	29 028	44 436	72 013	3 417
32419	Other petroleum & coal products mfg.....	—	5	2	c	D	D	D	D	D	D	D	D
325	Chemical mfg.....	1	358	160	21 978	1 030 984	11 783	24 578	436 919	3 540 236	2 887 666	6 436 910	396 201
3251	Basic chemical mfg.....	2	38	16	1 350	65 347	750	1 368	32 961	230 277	141 158	372 078	23 602
32518	Other basic inorganic chemical mfg.....	3	12	5	346	15 854	238	501	9 627	73 782	45 052	118 538	9 167
325188	All other basic inorganic chemical mfg.....	3	12	5	346	15 854	238	501	9 627	73 782	45 052	118 538	9 167
32519	Other basic organic chemical mfg.....	1	14	9	861	44 671	420	676	20 222	129 646	81 394	212 339	12 805
325193	Ethyl alcohol mfg.....	—	3	2	e	D	D	D	D	D	D	D	D
325199	All other basic organic chemical mfg.....	2	9	7	e	D	D	D	D	D	D	D	11 843
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg.....	1	27	20	1 892	82 646	1 116	2 388	41 196	177 195	362 874	545 795	D
32521	Resin & synthetic rubber mfg.....	1	24	19	g	D	D	D	D	D	D	D	D
325211	Plastics material & resin mfg.....	1	21	18	1 251	58 062	645	1 373	26 777	162 052	294 279	462 928	25 658
32522	Artificial & synthetic fibers & filaments mfg ..	—	3	1	f	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg.....	—	3	1	f	D	D	D	D	D	D	D	D
3253	Pesticide, fertilizer, & other agricultural chemical mfg .	1	13	2	107	3 934	71	160	2 167	14 028	25 195	39 082	D
32531	Fertilizer mfg.....	1	9	2	101	3 739	67	152	2 060	12 825	24 218	36 891	D
3254	Pharmaceutical & medicine mfg.....	—	71	39	7 102	338 151	3 400	7 175	129 085	1 502 155	642 854	2 124 000	191 814
32541	Pharmaceutical & medicine mfg.....	—	71	39	7 102	338 151	3 400	7 175	129 085	1 502 155	642 854	2 124 000	191 814
325411	Medicinal & botanical mfg.....	6	11	4	311	15 213	110	220	3 467	31 107	28 513	57 773	5 473
325412	Pharmaceutical preparation mfg.....	—	33	16	4 423	228 430	2 060	4 679	85 691	1 012 777	384 559	1 375 834	137 716
325413	In-vitro diagnostic substance mfg.....	—	14	12	1 490	68 478	550	1 026	22 825	209 583	103 731	315 428	24 910
325414	Biological product (except diagnostic) mfg.....	—	13	7	878	26 030	680	1 250	17 102	248 688	126 051	374 965	23 715
3255	Paint, coating, & adhesive mfg.....	1	69	24	1 793	73 305	840	1 736	27 576	272 832	224 497	495 785	8 575
32551	Paint & coating mfg.....	1	39	14	878	38 185	474	935	15 460	161 587	121 374	283 806	4 310
325510	Paint & coating mfg...	1	39	14	878	38 185	474	935	15 460	161 587	121 374	283 806	4 310
32552	Adhesive mfg.....	2	30	10	915	35 120	366	801	12 116	111 245	103 123	211 979	4 265
325520	Adhesive mfg.....	2	30	10	915	35 120	366	801	12 116	111 245	103 123	211 979	4 265

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS— Con. Manufacturing— Con.												
325	Chemical mfg—Con.												
3256	Soap, cleaning compound, & toilet preparation mfg ..	1	49	13	1 666	71 468	990	1 998	34 734	570 987	393 105	949 949	23 302
32561	Soap & cleaning compound mfg	3	42	10	f	D	D	D	D	D	D	D	5 498
325611	Soap & other detergent mfg	2	16	3	c	D	D	D	D	D	D	D	883
325612	Polish & other sanitation good mfg ..	5	17	4	315	12 114	158	327	4 477	72 644	47 657	120 713	2 402
325613	Surface active agent mfg	1	9	3	258	12 034	84	188	4 071	30 751	63 603	93 478	2 213
32562	Toilet preparation mfg ...	—	7	3	f	D	D	D	D	D	D	D	17 804
325620	Toilet preparation mfg .	—	7	3	f	D	D	D	D	D	D	D	17 804
3259	Other chemical product mfg	—	91	46	8 068	396 133	4 616	9 753	169 200	772 762	1 097 983	1 910 221	108 174
32591	Printing ink mfg	1	17	6	399	15 046	225	434	6 859	27 061	51 311	78 353	1 816
325910	Printing ink mfg	1	17	6	399	15 046	225	434	6 859	27 061	51 311	78 353	1 816
32599	All other chemical product & preparation mfg	—	74	40	7 669	381 087	4 391	9 319	162 341	745 701	1 046 672	1 831 868	106 358
325991	Custom compounding of purchased resin ...	2	41	23	1 713	60 795	1 016	2 074	27 958	148 757	284 437	432 409	D
325992	Photographic film, paper, plate, & chemical mfg	—	10	6	3 868	214 434	2 219	4 839	92 502	307 358	496 860	843 221	D
325998	All other miscellaneous chemical product & preparation mfg	—	23	11	2 088	105 858	1 156	2 406	41 881	289 586	265 375	556 238	32 237
326	Plastics & rubber products mfg	1	455	236	23 190	785 806	17 643	35 798	479 282	1 952 740	1 715 496	3 664 226	163 937
3261	Plastics product mfg	1	400	215	20 398	695 547	15 490	31 795	426 505	1 708 102	1 531 398	3 237 634	154 842
32611	Unsupported plastics film, sheet, & bag mfg ..	1	49	37	4 431	186 144	3 092	6 242	108 356	491 306	532 170	1 012 503	44 026
326111	Unsupported plastics bag mfg	—	13	10	781	21 498	611	1 093	12 529	52 348	51 921	106 616	D
326112	Unsupported plastics packaging film & sheet mfg	—	4	3	214	10 782	123	274	5 250	59 739	31 346	90 572	D
326113	Unsupported plastics film & sheet (except packaging) mfg	1	32	24	3 436	153 864	2 358	4 875	90 577	379 219	448 903	815 315	34 205
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg	—	24	9	1 266	40 957	1 025	2 107	28 720	85 417	58 433	146 094	7 709
326121	Unsupported plastics profile shape mfg	1	18	7	1 148	37 287	950	1 942	27 005	75 256	36 753	113 584	4 091
326122	Plastics pipe & pipe fitting mfg	—	6	2	118	3 670	75	165	1 715	10 161	21 680	32 510	3 618
32613	Laminated plastics plate, sheet, & shape mfg	2	15	1	298	8 113	261	585	6 912	27 057	37 702	65 068	4 659
326130	Laminated plastics plate, sheet, & shape mfg	2	15	1	298	8 113	261	585	6 912	27 057	37 702	65 068	4 659
32614	Polystyrene foam product mfg	1	8	5	554	14 678	426	864	8 954	34 450	25 447	59 761	2 051
326140	Polystyrene foam product mfg	1	8	5	554	14 678	426	864	8 954	34 450	25 447	59 761	2 051
32615	Urethane & other foam product (except polystyrene) mfg	2	14	8	602	23 639	414	911	10 665	57 717	65 919	123 034	4 113
326150	Urethane & other foam product (except polystyrene) mfg	2	14	8	602	23 639	414	911	10 665	57 717	65 919	123 034	4 113
32616	Plastics bottle mfg	—	10	6	472	14 594	432	918	12 580	44 638	55 751	100 159	3 433
326160	Plastics bottle mfg	—	10	6	472	14 594	432	918	12 580	44 638	55 751	100 159	3 433
32619	Other plastics product mfg	2	280	149	12 775	407 422	9 840	20 168	250 318	967 517	755 976	1 731 015	88 851
326199	All other plastics product mfg	2	275	148	12 728	405 861	9 805	20 094	249 381	964 438	754 850	1 726 819	88 774
3262	Rubber product mfg	—	55	21	2 792	90 259	2 153	4 003	52 777	244 638	184 098	426 592	9 095
32622	Rubber & plastics hoses & belting mfg	—	3	2	c	D	D	D	D	D	D	D	D
326220	Rubber & plastics hoses & belting mfg..	—	3	2	c	D	D	D	D	D	D	D	D
32629	Other rubber product mfg	—	49	19	2 644	85 085	2 060	3 830	50 311	235 553	175 088	408 479	8 868
326291	Rubber product mfg for mechanical use	—	16	4	1 325	38 693	1 086	1 987	25 318	83 515	46 204	128 359	2 110
326299	All other rubber product mfg	—	33	15	1 319	46 392	974	1 843	24 993	152 038	128 884	280 120	6 758

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS— Con. Manufacturing— Con.												
327	Nonmetallic mineral product mfg	1	276	79	8 498	327 046	5 844	11 676	171 528	723 600	526 404	1 246 852	93 259
3271	Clay product & refractory mfg	1	42	14	g	D	D	D	D	D	D	D	D
32711	Pottery, ceramics, & plumbing fixture mfg	1	32	11	683	16 946	517	921	9 707	42 650	15 660	58 069	2 524
327112	Vitreous china, fine earthenware, & other pottery product mfg	3	23	6	390	8 464	308	480	4 917	16 220	4 800	20 887	652
327113	Porcelain electrical supply mfg	—	9	5	293	8 482	209	441	4 790	26 430	10 860	37 182	1 872
32712	Clay building material & refractories mfg	—	10	3	e	D	D	D	D	D	D	D	D
327125	Nonclay refractory mfg	—	2	1	e	D	D	D	D	D	D	D	D
3272	Glass & glass product mfg	1	54	8	1 165	41 173	830	1 670	25 180	105 856	70 774	173 263	35 917
32721	Glass & glass product mfg	1	54	8	1 165	41 173	830	1 670	25 180	105 856	70 774	173 263	35 917
327212	Other pressed & blown glass & glassware mfg	6	19	—	c	D	D	D	D	D	D	D	760
327213	Glass container mfg	—	1	1	e	D	D	D	D	D	D	D	D
327215	Glass product mfg made of purchased glass	1	34	7	787	27 107	505	1 052	14 005	60 896	43 236	102 281	D
3273	Cement & concrete product mfg	2	104	32	2 111	75 690	1 546	3 233	50 122	179 279	182 404	361 062	21 797
32732	Ready-mix concrete mfg	2	47	17	1 029	42 234	771	1 678	29 147	110 846	117 624	226 809	16 246
327320	Ready-mix concrete mfg	2	47	17	1 029	42 234	771	1 678	29 147	110 846	117 624	226 809	16 246
32733	Concrete pipe, brick, & block mfg	1	22	5	259	8 411	161	331	4 710	17 456	19 044	36 205	D
327331	Concrete block & brick mfg	1	15	4	162	5 456	79	173	2 390	13 379	14 166	27 352	922
32739	Other concrete product mfg	1	32	10	800	24 326	595	1 177	15 653	48 659	41 061	91 046	4 214
327390	Other concrete product mfg	1	32	10	800	24 326	595	1 177	15 653	48 659	41 061	91 046	4 214
3274	Lime & gypsum product mfg	—	5	1	c	D	D	D	D	D	D	D	D
32742	Gypsum product mfg	—	4	1	c	D	D	D	D	D	D	D	D
327420	Gypsum product mfg	—	4	1	c	D	D	D	D	D	D	D	D
3279	Other nonmetallic mineral product mfg	—	71	24	4 040	173 364	2 591	5 090	73 852	341 796	221 412	563 460	31 081
32791	Abrasive product mfg	—	23	14	3 183	143 173	1 981	4 027	59 415	278 498	174 668	454 974	27 435
327910	Abrasive product mfg	—	23	14	3 183	143 173	1 981	4 027	59 415	278 498	174 668	454 974	27 435
32799	All other nonmetallic mineral product mfg	1	48	10	857	30 191	610	1 063	14 437	63 298	46 744	108 486	3 646
327991	Cut stone & stone product mfg	2	29	3	328	10 381	268	491	6 764	25 832	12 756	36 523	1 198
327993	Mineral wool mfg	1	5	3	277	12 146	147	229	2 979	18 045	18 519	37 930	1 393
327999	All other miscellaneous nonmetallic mineral product mfg	1	8	3	170	5 634	131	268	3 468	15 099	13 141	27 815	855
331	Primary metal mfg	—	124	64	6 296	218 140	4 650	10 037	140 008	532 948	1 330 846	1 848 792	58 974
3312	Steel product mfg from purchased steel	2	20	15	g	D	D	D	D	D	D	D	D
33122	Rolling & drawing of purchased steel	2	18	13	992	38 365	706	1 423	24 205	117 632	139 871	252 770	6 476
331221	Cold-rolled steel shape mfg	3	5	4	495	22 163	310	616	12 603	77 994	82 271	156 447	1 816
331222	Steel wire drawing	1	13	9	497	16 202	396	807	11 602	39 638	57 600	96 323	4 660
3313	Alumina & aluminum production & processing	6	4	3	333	11 231	268	552	7 595	29 948	42 745	73 192	4 411
33131	Alumina & aluminum production & processing	6	4	3	333	11 231	268	552	7 595	29 948	42 745	73 192	4 411
331319	Other aluminum rolling & drawing	7	3	2	e	D	D	D	D	D	D	D	D
3314	Nonferrous metal (except aluminum) production & processing	—	30	24	2 760	98 233	1 933	4 196	59 647	223 855	1 066 881	1 280 254	38 661
33141	Nonferrous metal (except aluminum) smelting & refining	—	4	2	c	D	D	D	D	D	D	D	D
331419	Other nonferrous metal primary smelting & refining	—	4	2	c	D	D	D	D	D	D	D	D
33142	Copper rolling, drawing, extruding, & alloying	—	13	10	g	D	D	D	D	D	D	D	D
331421	Copper rolling, drawing, & extruding	—	4	2	f	D	D	D	D	D	D	D	D
331422	Copper wire (except mechanical) drawing	—	8	8	f	D	D	D	D	D	D	D	8 728

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS— Con. Manufacturing— Con.												
331	Primary metal mfg—Con.												
3314	Nonferrous metal (except aluminum) production & processing—Con.												
33149	Other nonferrous metal rolling, drawing, extruding, & alloying ...	-	13	12	1 376	49 793	952	2 074	29 147	117 541	847 116	957 264	19 664
331491	Other nonferrous metal rolling, drawing, & extruding	-	7	6	698	20 263	552	1 191	13 736	38 273	111 552	168 984	D
331492	Other nonferrous metal secondary smelting, refining, & alloying...	-	6	6	678	29 530	400	883	15 411	79 268	735 564	788 280	D
3315	Foundries	1	68	22	2 124	66 835	1 663	3 723	46 549	153 087	71 204	224 116	8 862
33151	Ferrous metal foundries ..	1	25	13	903	31 316	698	1 580	22 670	56 806	32 449	90 119	3 444
331511	Iron foundries	1	21	10	669	23 936	502	1 128	16 714	40 281	25 175	66 269	3 249
331513	Steel foundries (except investment)	-	3	2	c	D	D	D	D	D	D	D	D
33152	Nonferrous metal foundries	1	43	9	1 221	35 519	965	2 143	23 879	96 281	38 755	133 997	5 418
331521	Aluminum die-casting foundries	-	7	2	605	16 966	478	1 137	11 610	60 296	18 345	77 550	3 921
331522	Nonferrous (except aluminum) die-casting foundries	-	4	1	155	4 035	126	270	2 484	8 236	4 562	13 122	D
331524	Aluminum foundries (except die-casting) ..	1	15	3	238	8 059	191	405	5 533	15 044	7 873	22 622	411
331525	Copper foundries (except die-casting) ..	1	12	1	109	3 289	84	177	2 207	5 846	4 610	10 474	D
331528	Other nonferrous foundries (except die-casting)	8	5	2	114	3 170	86	154	2 045	6 859	3 365	10 229	225
332	Fabricated metal product mfg	1	1 762	526	47 342	1 759 127	33 684	68 600	1 031 702	4 272 403	2 131 744	6 372 322	392 325
3321	Forging & stamping	2	100	45	4 638	176 596	3 657	7 603	108 845	346 942	242 941	582 020	21 214
33211	Forging & stamping	2	100	45	4 638	176 596	3 657	7 603	108 845	346 942	242 941	582 020	21 214
332111	Iron & steel forging	7	6	3	1 182	57 419	971	2 138	31 341	99 491	78 515	171 816	7 139
332114	Custom roll forming	1	9	2	c	D	D	D	D	D	D	D	D
332116	Metal stamping	-	77	37	2 769	94 281	2 161	4 382	59 723	199 454	124 554	320 953	10 474
332117	Powder metallurgy part mfg	1	6	3	569	21 040	441	907	15 366	34 059	20 548	56 102	3 197
3322	Cutlery & handtool mfg	-	62	28	6 350	250 690	4 607	10 535	159 909	1 168 500	286 126	1 428 762	181 920
33221	Cutlery & handtool mfg ..	-	62	28	6 350	250 690	4 607	10 535	159 909	1 168 500	286 126	1 428 762	181 920
332211	Cutlery & flatware (except precious) mfg	-	4	3	g	D	D	D	D	D	D	D	D
332212	Hand & edge tool mfg ..	-	52	21	h	D	D	D	D	D	D	D	D
332213	Saw blade & handsaw mfg	-	6	4	g	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg	1	302	110	6 845	243 007	4 839	9 411	144 402	456 180	326 376	783 751	27 294
33231	Plate work & fabricated structural product mfg ..	1	69	26	1 552	56 895	1 028	2 217	32 769	117 623	99 665	219 844	3 717
332312	Fabricated structural metal mfg	2	47	14	799	27 894	540	1 150	16 520	66 175	59 701	125 961	2 004
332313	Plate work mfg	1	19	10	f	D	D	D	D	D	D	D	D
33232	Ornamental & architectural metal products mfg	1	233	84	5 293	186 112	3 811	7 194	111 633	338 557	226 711	563 907	23 577
332321	Metal window & door mfg	1	22	8	441	12 604	282	545	6 601	24 783	26 604	51 375	486
332322	Sheet metal work mfg ..	1	161	66	4 056	149 512	3 032	5 632	91 452	265 046	166 495	430 788	20 650
332323	Ornamental & architectural metal work mfg	-	50	10	796	23 996	497	1 017	13 580	48 728	33 612	81 744	2 441
3324	Boiler, tank, & shipping container mfg	1	34	12	835	29 425	630	1 338	18 351	72 045	109 796	184 914	4 114
33241	Power boiler & heat exchanger mfg	2	9	2	176	6 943	112	242	3 443	17 008	10 291	27 310	936
332410	Power boiler & heat exchanger mfg	2	9	2	176	6 943	112	242	3 443	17 008	10 291	27 310	936
33242	Metal tank (heavy gauge) mfg	-	6	2	130	4 474	103	198	2 162	10 436	16 041	26 816	493
332420	Metal tank (heavy gauge) mfg	-	6	2	130	4 474	103	198	2 162	10 436	16 041	26 816	493
33243	Metal can, box, & other metal container (light gauge) mfg	1	19	8	529	18 008	415	898	12 746	44 601	83 464	130 788	2 685
332431	Metal can mfg	-	2	1	c	D	D	D	D	D	D	D	D
332439	Other metal container mfg	2	17	7	e	D	D	D	D	D	D	D	D
3325	Hardware mfg	-	28	12	1 366	39 636	1 038	1 714	21 071	95 953	60 537	156 718	2 883
33251	Hardware mfg	-	28	12	1 366	39 636	1 038	1 714	21 071	95 953	60 537	156 718	2 883
332510	Hardware mfg	-	28	12	1 366	39 636	1 038	1 714	21 071	95 953	60 537	156 718	2 883

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS— Con. Manufacturing— Con.												
332	Fabricated metal product mfg—Con.												
3326	Spring & wire product mfg .	1	46	20	1 586	43 568	1 072	2 148	26 231	99 413	90 604	189 323	8 958
33261	Spring & wire product mfg	1	46	20	1 586	43 568	1 072	2 148	26 231	99 413	90 604	189 323	8 958
332612	Spring (light gauge) mfg	1	8	6	f	D	D	D	D	D	D	D	D
332618	Other fabricated wire product mfg	1	36	13	985	25 993	632	1 235	14 675	60 110	54 386	114 437	6 038
3327	Machine shops, turned product, & screw, nut, & bolt mfg	2	823	164	12 213	456 928	9 006	18 212	289 090	844 259	394 771	1 235 727	80 232
33271	Machine shops	2	701	113	8 992	339 278	6 583	13 127	215 720	623 359	286 956	909 669	57 008
332710	Machine shops	2	701	113	8 992	339 278	6 583	13 127	215 720	623 359	286 956	909 669	57 008
33272	Turned product & screw, nut, & bolt mfg	2	122	51	3 221	117 650	2 423	5 085	73 370	220 900	107 815	326 058	23 224
332721	Precision turned product mfg	1	89	36	2 146	77 141	1 643	3 431	50 245	153 814	56 282	206 725	17 406
332722	Bolt, nut, screw, rivet, & washer mfg	2	33	15	1 075	40 509	780	1 654	23 125	67 086	51 533	119 333	5 818
3328	Coating, engraving, heat treating, & allied activities.	1	216	83	4 799	154 345	3 633	7 879	96 920	301 917	104 021	406 856	22 722
33281	Coating, engraving, heat treating, & allied activities	1	216	83	4 799	154 345	3 633	7 879	96 920	301 917	104 021	406 856	22 722
332811	Metal heat treating	1	22	9	550	21 478	420	954	14 731	50 873	13 464	64 727	7 234
332812	Metal coating/engraving (exc jewelry/silverware)/allied services	2	85	34	1 555	48 422	1 196	2 578	29 656	95 642	33 351	129 318	4 623
332813	Electroplating, plating, polishing, anodizing, & coloring	1	109	40	2 694	84 445	2 017	4 347	52 533	155 402	57 206	212 811	10 865
3329	Other fabricated metal product mfg	—	151	52	8 710	364 932	5 202	9 760	166 883	887 194	516 572	1 404 251	42 988
33291	Metal valve mfg	—	29	14	3 061	132 922	1 874	3 732	66 166	335 285	192 272	525 005	15 357
332911	Industrial valve mfg	—	15	10	2 091	97 686	1 199	2 300	45 227	225 567	150 643	376 653	10 863
332912	Fluid power valve & hose fitting mfg	—	5	1	f	D	D	D	D	D	D	D	D
332913	Plumbing fixture fitting & trim mfg	—	4	2	372	13 570	264	516	7 852	47 587	26 488	72 774	D
33299	All other fabricated metal product mfg	—	122	38	5 649	232 010	3 328	6 028	100 717	551 909	324 300	879 246	27 631
332991	Ball & roller bearing mfg	—	3	1	c	D	D	D	D	D	D	D	D
332993	Ammunition (except small arms) mfg	—	5	5	1 465	79 261	425	667	14 144	214 458	108 976	322 828	D
332994	Small arms mfg	—	5	4	1 299	45 697	883	1 320	26 872	104 032	27 981	136 176	656
332996	Fabricated pipe & pipe fitting mfg	3	12	1	135	4 843	108	213	3 141	10 557	7 766	18 486	783
332999	All other miscellaneous fabricated metal product mfg	—	76	26	2 494	94 856	1 704	3 405	51 527	208 076	167 801	375 099	11 919
333	Machinery mfg	2	833	316	33 238	1 454 359	18 686	37 458	641 113	3 233 548	2 643 704	5 879 368	223 466
3331	Agriculture, construction, & mining machinery mfg	1	24	11	799	30 998	522	1 092	14 226	50 763	69 450	126 573	4 078
33311	Agricultural implement mfg	1	6	1	c	D	D	D	D	D	D	D	D
333111	Farm machinery & equipment mfg	1	6	1	c	D	D	D	D	D	D	D	D
33312	Construction machinery mfg	2	15	9	444	18 968	281	557	8 199	35 689	35 998	70 910	1 308
333120	Construction machinery mfg	2	15	9	444	18 968	281	557	8 199	35 689	35 998	70 910	1 308
33313	Mining & oil & gas field machinery mfg	—	3	1	c	D	D	D	D	D	D	D	D
333132	Oil & gas field machinery & equipment mfg	—	2	1	c	D	D	D	D	D	D	D	D
3332	Industrial machinery mfg	2	184	83	12 750	602 907	6 296	12 800	226 843	1 448 815	1 175 089	2 623 295	99 352
33322	Plastics & rubber industry machinery mfg	—	28	15	1 576	66 371	787	1 605	28 502	162 539	160 262	325 472	8 078
333220	Plastics & rubber industry machinery mfg	—	28	15	1 576	66 371	787	1 605	28 502	162 539	160 262	325 472	8 078
33329	Other industrial machinery mfg	2	150	67	11 133	535 527	5 476	11 149	197 704	1 284 659	1 013 726	2 295 232	91 219
333291	Paper industry machinery mfg	2	23	12	1 678	73 298	862	1 680	30 434	114 941	135 649	251 377	5 762
333292	Textile machinery mfg	—	21	8	470	16 446	315	642	8 987	30 084	25 150	56 548	1 314
333293	Printing machinery & equipment mfg	2	21	12	1 421	60 380	775	1 674	25 211	129 789	91 304	219 578	4 611
333295	Semiconductor machinery mfg	2	23	17	5 357	282 061	2 560	5 090	95 308	775 179	604 132	1 373 229	42 579
333298	All other industrial machinery mfg	4	53	17	2 117	99 906	919	1 981	36 305	226 970	150 837	379 812	36 331

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS— Con. Manufacturing— Con.												
333	Machinery mfg—Con.												
3333	Commercial & service industry machinery mfg . .	1	109	48	4 828	200 865	2 837	5 632	86 868	380 689	302 140	678 115	40 306
33331	Commercial & service industry machinery mfg	1	109	48	4 828	200 865	2 837	5 632	86 868	380 689	302 140	678 115	40 306
333312	Commercial laundry, drycleaning, & pressing machine mfg	—	3	3	306	9 290	204	373	5 271	21 755	20 195	42 223	D
333313	Office machinery mfg	4	6	4	204	8 462	114	221	3 409	1 663	20 970	22 788	D
333314	Optical instrument & lens mfg	1	48	22	2 215	83 735	1 342	2 623	40 537	198 870	89 821	286 219	13 360
333315	Photographic & photocopying equipment mfg	1	15	7	1 356	73 771	727	1 545	25 822	100 311	115 919	214 928	23 153
333319	Other commercial & service industry machinery mfg	2	34	12	720	25 021	430	835	11 486	56 481	54 020	109 112	2 345
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	3	41	19	1 850	73 839	1 115	2 263	36 015	141 905	136 657	280 741	9 038
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	3	41	19	1 850	73 839	1 115	2 263	36 015	141 905	136 657	280 741	9 038
333411	Air purification equipment mfg	5	11	5	355	13 751	274	500	8 532	24 403	28 257	55 811	3 228
333412	Industrial & commercial fan & blower mfg	8	5	2	118	7 082	90	182	4 271	16 699	15 866	32 798	773
333414	Heating equipment (except warm air furnaces) mfg	1	12	7	784	26 188	408	862	10 947	52 583	45 979	99 482	2 527
333415	AC & warm air heating & commercial/ industrial refrig equip mfg	—	13	5	593	26 818	343	719	12 265	48 220	46 555	92 650	2 510
3335	Metalworking machinery mfg	4	274	70	5 219	208 712	3 549	7 219	125 156	410 230	229 224	634 420	25 406
33351	Metalworking machinery mfg	4	274	70	5 219	208 712	3 549	7 219	125 156	410 230	229 224	634 420	25 406
333511	Industrial mold mfg	2	70	17	1 198	50 923	935	2 069	36 194	87 297	30 438	116 799	7 057
333512	Machine tool (metal cutting types) mfg	1	14	10	461	19 057	272	549	8 989	34 195	28 839	64 234	1 408
333513	Machine tool (metal forming types) mfg	2	5	3	c	D	D	D	D	D	D	D	D
333514	Special die & tool, die set, jig, & fixture mfg	3	107	11	898	32 561	695	1 291	22 273	58 651	21 182	79 495	5 253
333515	Cutting tool & machine tool accessory mfg	1	59	19	1 361	51 338	983	1 925	35 140	101 607	46 716	147 125	7 199
333516	Rolling mill machinery & equipment mfg	9	5	2	f	D	D	D	D	D	D	D	D
333518	Other metalworking machinery mfg	6	14	8	415	15 544	266	494	8 224	30 691	23 990	54 420	1 380
3336	Engine, turbine, & power transmission equipment mfg	—	32	15	1 834	83 057	1 138	2 253	41 435	207 346	116 578	320 866	7 963
33361	Engine, turbine, & power transmission equipment mfg	—	32	15	1 834	83 057	1 138	2 253	41 435	207 346	116 578	320 866	7 963
333611	Turbine & turbine generator set unit mfg	—	9	6	1 097	55 164	630	1 282	25 393	120 723	68 420	185 727	3 358
333612	Speed changer, industrial high-speed drive, & gear mfg	2	10	5	274	11 237	182	390	6 164	19 902	7 837	29 075	750
333613	Mechanical power transmission equipment mfg	—	8	3	378	13 733	260	460	8 214	60 009	36 935	95 894	3 449
3339	Other general-purpose machinery mfg	1	169	70	5 958	253 981	3 229	6 199	110 570	593 800	614 566	1 215 358	37 323
33391	Pump & compressor mfg	1	16	11	1 615	69 675	715	1 395	24 562	189 186	263 453	449 952	9 808
333911	Pump & pumping equipment mfg	—	9	6	f	D	D	D	D	D	D	D	D
333912	Air & gas compressor mfg	1	5	4	860	35 327	358	690	12 398	94 865	186 262	278 125	6 084
333913	Measuring & dispensing pump mfg	—	2	1	c	D	D	D	D	D	D	D	D
33392	Material handling equipment mfg	2	25	13	478	17 043	298	654	9 573	31 528	44 494	75 797	2 405
333922	Conveyor & conveying equipment mfg	2	14	7	262	9 085	157	362	4 646	16 044	29 618	46 209	833
333923	Overhead traveling crane, hoist, & monorail system mfg	—	4	4	132	4 915	85	177	3 143	8 481	9 974	18 403	333

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	MASSACHUSETTS—Con.												
31-33	Manufacturing—Con.												
333	Machinery mfg—Con.												
3339	Other general-purpose machinery mfg—Con.												
33399	All other general-purpose machinery mfg	1	128	46	3 865	167 263	2 216	4 150	76 435	373 086	306 619	689 609	25 110
333991	Power-driven handtool mfg	1	10	2	227	9 706	169	325	5 764	33 489	20 681	55 360	1 612
333992	Welding & soldering equipment mfg	1	6	3	119	4 468	74	121	2 099	10 112	9 200	18 603	D
333993	Packaging machinery mfg	4	17	6	555	24 630	359	661	11 520	52 356	32 540	83 972	1 955
333994	Industrial process furnace & oven mfg ..	2	13	5	556	20 945	323	661	9 580	27 991	52 268	83 463	2 973
333996	Fluid power pump & motor mfg	—	3	1	c	D	D	D	D	D	D	D	D
333999	All other miscellaneous general-purpose machinery mfg	—	76	28	2 186	96 745	1 189	2 199	44 182	229 839	176 532	413 023	16 118
334	Computer & electronic product mfg	1	926	477	105 506	5 073 299	47 868	96 801	1 724 038	15 014 844	8 381 144	23 336 824	1 033 663
3341	Computer & peripheral equipment mfg	—	103	47	8 060	434 732	2 555	5 262	118 418	1 374 943	1 229 717	2 590 910	89 678
33411	Computer & peripheral equipment mfg	—	103	47	8 060	434 732	2 555	5 262	118 418	1 374 943	1 229 717	2 590 910	89 678
334111	Electronic computer mfg	—	18	8	2 070	97 571	373	646	12 619	653 023	416 751	1 054 857	19 827
334112	Computer storage device mfg	—	11	3	1 368	85 384	164	253	4 275	64 898	127 914	190 917	D
334113	Computer terminal mfg	—	11	4	764	40 548	93	232	3 251	54 505	99 627	158 958	D
334119	Other computer peripheral equipment mfg	1	63	32	3 858	211 229	1 925	4 131	98 273	602 517	585 425	1 186 178	35 578
3342	Communications equipment mfg	1	106	63	22 734	1 098 201	12 141	22 599	530 469	4 424 500	2 307 050	6 742 230	255 349
33421	Telephone apparatus mfg	—	29	19	10 951	549 116	5 260	8 903	222 185	2 842 355	1 605 966	4 460 542	161 361
334210	Telephone apparatus mfg	—	29	19	10 951	549 116	5 260	8 903	222 185	2 842 355	1 605 966	4 460 542	161 361
33422	Radio & TV broadcasting & wireless communications equipment mfg	1	54	35	9 765	462 621	6 133	11 987	287 928	1 038 413	581 714	1 606 925	69 700
334220	Radio & TV broadcasting & wireless communications equipment mfg	1	54	35	9 765	462 621	6 133	11 987	287 928	1 038 413	581 714	1 606 925	69 700
33429	Other communications equipment mfg	9	23	9	2 018	86 464	748	1 709	20 356	543 732	119 370	674 763	24 288
334290	Other communications equipment mfg	9	23	9	2 018	86 464	748	1 709	20 356	543 732	119 370	674 763	24 288
3343	Audio & video equipment mfg	—	19	7	1 271	44 878	882	1 972	26 604	308 615	201 964	516 129	10 779
33431	Audio & video equipment mfg	—	19	7	1 271	44 878	882	1 972	26 604	308 615	201 964	516 129	10 779
334310	Audio & video equipment mfg	—	19	7	1 271	44 878	882	1 972	26 604	308 615	201 964	516 129	10 779
3344	Semiconductor & other electronic component mfg	1	360	194	29 274	1 185 252	17 156	35 144	462 049	3 246 375	1 776 703	4 997 345	388 791
33441	Semiconductor & other electronic component mfg	1	360	194	29 274	1 185 252	17 156	35 144	462 049	3 246 375	1 776 703	4 997 345	388 791
334411	Electron tube mfg	—	10	4	692	28 175	488	951	15 633	60 613	20 309	80 094	1 558
334412	Bare printed circuit board mfg	1	64	30	3 362	117 011	2 245	4 739	57 653	278 743	162 583	435 089	21 479
334413	Semiconductor & related device mfg ...	—	73	41	9 517	418 002	5 073	9 561	156 922	1 366 266	591 717	1 941 028	261 125
334414	Electronic capacitor mfg	3	9	3	160	5 000	109	217	2 632	8 334	6 051	14 245	462
334415	Electronic resistor mfg	—	6	6	382	9 504	296	682	5 691	30 375	5 566	37 552	1 175
334416	Electronic coil, transformer, & other inductor mfg	4	20	9	453	10 744	353	695	6 218	23 213	11 647	34 897	536
334417	Electronic connector mfg	2	23	14	1 271	46 164	892	1 944	25 627	121 613	54 775	168 077	6 620
334418	Printed circuit assembly (electronic assembly) mfg	—	60	47	7 751	363 600	4 100	8 832	104 922	986 899	636 784	1 624 923	60 582
334419	Other electronic component mfg	1	95	40	5 686	187 052	3 600	7 523	86 751	370 319	287 271	661 440	35 254

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	MASSACHUSETTS—Con.												
31-33	Manufacturing—Con.												
334	Computer & electronic product mfg—Con.												
3345	Navigational, measuring, medical, & control instruments mfg	-	308	159	43 143	2 265 961	14 437	30 239	561 178	5 534 979	2 731 225	8 229 775	261 758
33451	Navigational, measuring, medical, & control instruments mfg	-	308	159	43 143	2 265 961	14 437	30 239	561 178	5 534 979	2 731 225	8 229 775	261 758
334510	Electromedical & electrotherapeutic apparatus mfg	-	31	16	4 746	306 748	2 258	5 004	80 628	892 520	531 300	1 424 215	55 208
334511	Search, detection, navigation, & guidance instrument mfg	-	41	16	18 040	1 007 048	4 819	10 819	245 917	2 114 180	920 131	2 984 101	68 798
334512	Automatic environmental control mfg	1	11	6	474	15 782	294	611	6 908	35 528	19 182	55 337	3 274
334513	Industrial process control instrument mfg	-	51	31	5 312	243 046	2 041	3 950	60 184	694 609	305 629	1 003 314	24 884
334514	Totalizing fluid meter & counting device mfg .	1	6	4	c	D	D	D	D	D	D	D	D
334515	Electricity measuring & testing instrument mfg	1	42	26	5 109	238 597	1 667	3 147	56 896	755 493	339 725	1 096 688	50 512
334516	Analytical laboratory instrument mfg	-	61	27	4 818	239 029	1 447	2 950	49 296	524 196	328 665	852 557	30 913
334517	Irradiation apparatus mfg	-	9	5	1 901	93 032	637	1 315	16 351	199 585	114 401	312 178	9 793
334518	Watch, clock, & part mfg	-	4	3	c	D	D	D	D	D	D	D	D
334519	Other measuring & controlling device mfg	1	52	25	2 336	109 454	1 145	2 179	42 125	228 551	136 605	375 798	9 028
3346	Mfg & reproducing magnetic & optical media .	1	30	7	1 024	44 275	697	1 585	25 320	125 432	134 485	260 435	27 308
33461	Mfg & reproducing magnetic & optical media	1	30	7	1 024	44 275	697	1 585	25 320	125 432	134 485	260 435	27 308
334612	Prerecorded CD (except software), tape, & record reproducing	1	12	1	c	D	D	D	D	D	D	D	D
334613	Magnetic & optical recording media mfg .	1	16	5	864	39 345	583	1 346	22 284	105 472	126 211	232 131	25 180
335	Electrical equipment, appliance, & component mfg	1	229	123	16 921	602 859	10 691	22 292	289 093	1 668 757	1 370 419	3 035 097	99 427
3351	Electric lighting equipment mfg	-	36	14	2 654	74 445	1 858	3 595	49 018	263 196	187 707	446 710	14 205
33511	Electric lamp bulb & part mfg	-	2	1	f	D	D	D	D	D	D	D	D
335110	Electric lamp bulb & part mfg	-	2	1	f	D	D	D	D	D	D	D	D
33512	Lighting fixture mfg	1	34	13	g	D	D	D	D	D	D	D	D
335121	Residential electric lighting fixture mfg ...	1	16	4	e	D	D	D	D	D	D	D	D
335122	Commercial/industrial/institutional electric lighting fixture mfg ...	1	10	6	1 259	31 360	747	1 434	20 276	127 641	108 847	233 785	3 217
335129	Other lighting equipment mfg	2	8	3	318	11 143	228	515	5 928	17 952	19 016	36 410	D
3352	Household appliance mfg..	-	10	6	649	18 627	522	1 178	12 342	44 720	46 785	90 978	1 775
33522	Major appliance mfg	-	6	5	584	16 412	478	1 088	11 166	39 450	42 836	81 794	D
335222	Household refrigerator & home freezer mfg..	-	1	1	e	D	D	D	D	D	D	D	D
335228	Other major household appliance mfg	1	5	4	c	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	75	35	4 733	186 875	2 379	4 927	63 113	565 538	293 109	860 534	27 329
33531	Electrical equipment mfg	-	75	35	4 733	186 875	2 379	4 927	63 113	565 538	293 109	860 534	27 329
335311	Power, distribution, & specialty transformer mfg	4	8	3	203	5 987	129	226	2 760	14 932	8 203	22 333	707
335312	Motor & generator mfg	1	14	4	394	11 626	270	558	6 257	33 932	26 217	60 040	1 293
335313	Switchgear & apparatus mfg	-	14	10	1 618	63 527	939	2 403	27 551	255 305	67 119	322 668	5 144
335314	Relay & industrial control mfg	1	39	18	2 518	105 735	1 041	1 740	26 545	261 369	191 570	455 493	20 185

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS— Con. Manufacturing— Con.												
335	Electrical equipment, appliance, & component mfg—Con.												
3359	Other electrical equipment & component mfg	2	108	68	8 885	322 912	5 932	12 592	164 620	795 303	842 818	1 636 875	56 118
33591	Battery mfg	1	4	1	105	3 206	75	110	1 554	9 323	4 757	14 061	D
335912	Primary battery mfg	1	2	1	c	D	D	D	D	D	D	D	D
33592	Communication & energy wire & cable mfg	2	30	30	3 380	139 791	2 335	4 964	72 526	357 361	470 592	823 595	28 752
335921	Fiber optic cable mfg	—	4	4	324	15 598	167	243	4 660	38 183	35 429	71 122	3 743
335929	Other communication & energy wire mfg	3	26	26	3 056	124 193	2 168	4 721	67 866	319 178	435 163	752 473	25 009
33593	Wiring device mfg	—	28	14	2 470	83 133	1 673	3 551	46 328	210 863	146 328	354 517	D
335931	Current-carrying wiring device mfg	—	24	11	1 790	61 305	1 141	2 441	32 546	181 012	130 341	306 319	9 602
335932	Noncurrent-carrying wiring device mfg	—	4	3	680	21 828	532	1 110	13 782	29 851	15 987	48 198	D
33599	All other electrical equipment & component mfg	3	46	23	2 930	96 782	1 849	3 967	44 212	217 756	221 141	444 702	12 793
335999	All other miscellaneous electrical equipment & component mfg	3	42	23	2 909	96 172	1 834	3 937	43 826	216 155	219 912	441 824	12 617
336	Transportation equipment mfg	—	181	63	13 341	590 221	8 270	15 579	281 199	1 284 881	1 629 638	2 950 306	99 552
3361	Motor vehicle mfg	—	2	2	c	D	D	D	D	D	D	D	D
33611	Automobile & light duty motor vehicle mfg	—	2	2	c	D	D	D	D	D	D	D	D
3362	Motor vehicle body & trailer mfg	2	16	6	321	12 176	245	536	7 224	20 257	29 977	50 443	1 327
33621	Motor vehicle body & trailer mfg	2	16	6	321	12 176	245	536	7 224	20 257	29 977	50 443	1 327
336211	Motor vehicle body mfg	2	7	3	191	7 779	139	306	4 184	14 955	17 636	32 418	1 113
3363	Motor vehicle parts mfg ...	1	83	27	6 100	238 721	3 530	6 665	81 219	483 670	442 248	932 125	38 439
33631	Motor vehicle gasoline engine & engine parts mfg	2	13	1	c	D	D	D	D	D	D	D	610
33632	Motor vehicle electrical & electronic equipment mfg	4	36	12	869	30 203	521	1 006	12 984	71 195	96 391	166 653	5 059
336322	Other motor vehicle electrical & electronic equipment mfg	4	36	12	869	30 203	521	1 006	12 984	71 195	96 391	166 653	5 059
33634	Motor vehicle brake system mfg	—	5	4	316	7 813	267	534	5 561	16 981	16 954	34 448	D
336340	Motor vehicle brake system mfg	—	5	4	316	7 813	267	534	5 561	16 981	16 954	34 448	D
33635	Motor vehicle transmission & power train parts mfg	1	5	1	c	D	D	D	D	D	D	D	778
336350	Motor vehicle transmission & power train parts mfg	1	5	1	c	D	D	D	D	D	D	D	778
33637	Motor vehicle metal stamping	—	9	5	472	19 085	288	745	9 830	33 835	25 200	59 856	2 297
336370	Motor vehicle metal stamping	—	9	5	472	19 085	288	745	9 830	33 835	25 200	59 856	2 297
33639	Other motor vehicle parts mfg	—	11	4	h	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts mfg	—	11	4	h	D	D	D	D	D	D	D	D
3364	Aerospace product & parts mfg	—	23	14	5 972	313 736	3 806	7 177	176 390	733 207	1 102 804	1 864 728	57 989
33641	Aerospace product & parts mfg	—	23	14	5 972	313 736	3 806	7 177	176 390	733 207	1 102 804	1 864 728	57 989
336412	Aircraft engine & engine parts mfg	—	15	14	5 900	311 045	3 757	7 091	174 770	727 187	1 099 928	1 855 626	57 653
3366	Ship & boat building	5	46	8	f	D	D	D	D	D	D	D	1 065
33661	Ship & boat building	5	46	8	f	D	D	D	D	D	D	D	1 065
336611	Ship building & repairing	5	20	5	e	D	D	D	D	D	D	D	369
336612	Boat building	4	26	3	e	D	D	D	D	D	D	D	696
3369	Other transportation equipment mfg	2	10	6	244	6 962	158	324	3 599	11 145	11 355	22 752	D
33699	Other transportation equipment mfg	2	10	6	244	6 962	158	324	3 599	11 145	11 355	22 752	D
336999	All other transportation equipment mfg	2	6	4	c	D	D	D	D	D	D	D	218

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS— Con. Manufacturing— Con.												
337	Furniture & related product mfg	1	356	75	6 775	200 125	5 091	9 897	125 095	426 651	385 715	814 168	23 910
3371	Household & institutional furniture & kitchen cabinet mfg	2	257	44	4 084	113 682	3 114	6 034	75 364	222 634	183 039	405 790	10 587
33711	Wood kitchen cabinet & counter top mfg	3	111	10	797	23 590	620	1 287	16 643	45 124	34 282	79 782	1 095
337110	Wood kitchen cabinet & counter top mfg ...	3	111	10	797	23 590	620	1 287	16 643	45 124	34 282	79 782	1 095
33712	Household & institutional furniture mfg	2	146	34	3 287	90 092	2 494	4 747	58 721	177 510	148 757	326 008	9 492
337121	Upholstered household furniture mfg	4	25	3	303	7 039	247	424	5 487	9 954	10 874	20 766	566
337122	Nonupholstered wood household furniture mfg	1	85	16	1 392	34 677	1 090	2 104	23 876	69 525	68 026	137 184	2 326
337127	Institutional furniture mfg	2	23	13	1 410	42 993	1 017	1 914	26 047	88 616	62 592	151 377	5 885
337129	Wood television, radio, & sewing machine cabinet mfg	-	2	1	c	D	D	D	D	D	D	D	D
3372	Office furniture (including fixtures) mfg	1	67	22	1 803	60 223	1 320	2 508	33 332	117 423	119 395	237 407	7 019
33721	Office furniture (including fixtures) mfg	1	67	22	1 803	60 223	1 320	2 508	33 332	117 423	119 395	237 407	7 019
337211	Wood office furniture mfg	-	5	1	c	D	D	D	D	D	D	D	D
337212	Custom architectural woodwork & millwork mfg	1	29	10	623	21 526	437	879	11 875	37 658	24 542	62 545	915
337214	Office furniture (except wood) mfg	-	3	2	e	D	D	D	D	D	D	D	D
337215	Showcase, partition, shelving, & locker mfg	2	30	9	644	20 591	486	1 024	13 058	41 163	27 939	68 589	1 641
3379	Other furniture related product mfg	1	32	9	888	26 220	657	1 355	16 399	86 594	83 281	170 971	6 304
33791	Mattress mfg	1	18	9	791	23 996	588	1 216	15 049	82 283	78 347	161 564	6 187
337910	Mattress mfg	1	18	9	791	23 996	588	1 216	15 049	82 283	78 347	161 564	6 187
339	Miscellaneous mfg	1	850	238	32 105	1 164 000	19 275	38 474	502 496	3 227 583	1 897 530	5 158 526	173 906
3391	Medical equipment & supplies mfg	1	361	107	13 388	541 272	7 156	13 800	178 547	1 358 669	640 150	2 008 850	82 557
33911	Medical equipment & supplies mfg	1	361	107	13 388	541 272	7 156	13 800	178 547	1 358 669	640 150	2 008 850	82 557
339111	Laboratory apparatus & furniture mfg	-	26	11	910	37 917	360	688	10 531	70 483	61 831	133 988	4 534
339112	Surgical & medical instrument mfg	1	110	52	7 486	332 990	3 911	7 697	96 215	838 183	407 288	1 256 804	53 473
339113	Surgical appliance & supplies mfg	1	45	24	2 341	93 793	1 241	2 416	36 490	273 620	94 474	359 253	15 621
339115	Ophthalmic goods mfg	1	29	13	1 882	56 520	1 079	2 092	22 520	132 557	57 789	194 390	7 607
339116	Dental laboratories ...	6	131	7	684	17 826	509	813	11 513	38 400	15 352	54 300	1 092
3399	Other miscellaneous mfg ...	-	489	131	18 717	622 728	12 119	24 674	323 949	1 868 914	1 257 380	3 149 676	91 349
33991	Jewelry & silverware mfg	-	126	38	4 747	144 089	3 185	6 462	69 526	343 569	390 841	738 354	12 582
339911	Jewelry (except costume) mfg	1	59	17	1 574	46 384	1 163	2 236	25 432	156 331	123 803	280 038	3 108
339912	Silverware & plated ware mfg	-	12	7	1 060	45 390	454	936	12 093	94 257	158 312	244 629	3 696
339913	Jewelers' material & lapidary work mfg ...	-	18	5	891	27 815	558	1 233	13 269	45 059	81 767	126 243	D
339914	Costume jewelry & novelty mfg	1	37	9	1 222	24 500	1 010	2 057	18 732	47 922	26 959	87 444	D
33992	Sporting & athletic goods mfg	-	38	8	2 493	109 520	1 855	4 160	72 499	509 145	236 389	761 974	41 726
339920	Sporting & athletic goods mfg	-	38	8	2 493	109 520	1 855	4 160	72 499	509 145	236 389	761 974	41 726
33993	Doll, toy, & game mfg ...	-	34	11	3 304	108 273	2 414	4 965	59 525	411 591	186 745	596 107	11 383
339932	Game, toy, & children's vehicle mfg	-	31	11	h	D	D	D	D	D	D	D	D
33994	Office supplies (except paper) mfg	4	36	7	594	16 149	365	676	8 460	35 585	21 577	57 008	2 093
339941	Pen & mechanical pencil mfg	7	7	3	219	6 528	167	323	4 637	16 472	8 317	24 657	1 015
339942	Lead pencil & art good mfg	2	11	1	127	3 312	68	133	1 262	8 430	6 342	14 523	735
339943	Marking device mfg ...	-	16	2	c	D	D	D	D	D	D	D	D
339944	Carbon paper & inked ribbon mfg	-	2	1	c	D	D	D	D	D	D	D	D
33995	Sign mfg	1	125	18	1 347	42 559	833	1 626	21 988	78 675	57 324	136 902	2 140
339950	Sign mfg	1	125	18	1 347	42 559	833	1 626	21 988	78 675	57 324	136 902	2 140

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MASSACHUSETTS—Con.												
	Manufacturing—Con.												
339	Miscellaneous mfg—Con.												
3399	Other miscellaneous mfg—Con.												
33999	All other miscellaneous mfg	1	130	49	6 232	202 138	3 467	6 785	91 951	490 349	364 504	859 331	21 425
339991	Gasket, packing, & sealing device mfg ...	1	24	12	1 682	63 157	911	1 782	27 258	185 203	107 704	295 014	8 140
339992	Musical instrument mfg	1	22	8	517	15 733	352	705	8 375	40 619	13 458	53 010	2 444
339993	Fastener, button, mesdle, & pin mfg	6	5	2	282	7 096	93	182	2 645	13 714	14 370	27 901	245
339994	mfg, brush, & mop	—	14	9	749	19 269	492	1 024	9 426	47 154	40 701	91 489	2 779
339995	Burial casket mfg	—	4	3	187	4 325	157	295	3 135	7 250	5 133	12 268	116
339999	All other miscellaneous mfg	1	61	15	2 815	92 558	1 462	2 797	41 112	196 409	183 138	379 649	7 701

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

²Industries with 100 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 100 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: c–100 to 249 employees; e–250 to 499 employees; f–500 to 999 employees; g–1,000 to 2,499 employees, h–2,500 to 4,999 employees; i–5,000 to 9,999 employees; j–10,000 to 24,999 employees; k–25,000 to 49,999 employees; l–50,000 to 99,999 employees; m–100,000 employees or more.

Table 2. Industry Statistics for Metropolitan Areas: 1997

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	BARNSTABLE—YARMOUTH, MA MSA												
	Manufacturing	2	152	13	1 667	52 061	998	1 624	22 655	163 118	81 102	242 017	9 920
334	Computer & electronic product mfg	—	9	1	e	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	—	2	1	e	D	D	D	D	D	D	D	D
33421	Telephone apparatus mfg	—	1	1	e	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	—	1	1	e	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	1	23	2	289	5 560	203	273	4 411	13 849	13 279	26 882	D
31-33	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA												
	Manufacturing	1	8 844	3 074	395 322	15 798 742	241 095	484 982	7 435 157	45 718 100	33 681 939	79 309 730	3 482 539
	Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA (CT Part)	—	19	7	547	20 357	385	844	10 270	43 926	28 713	71 244	2 650
	Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA (ME Part)	1	41	8	1 388	43 851	734	1 653	20 074	S	S	124 721	4 828
	Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA (MA Part)	1	7 448	2 622	332 006	13 505 530	198 540	401 940	6 174 666	37 417 970	27 017 210	64 365 196	2 975 800
	Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA (NH Part)	1	1 336	437	61 381	2 229 004	41 436	80 545	1 230 147	8 395 120	6 376 277	14 748 569	499 261
311	Food mfg	1	664	187	j	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	1	48	16	h	D	D	D	D	D	D	D	D
313	Textile mills	1	128	69	i	D	D	D	D	D	D	D	D
314	Textile product mills	1	180	42	h	D	D	D	D	D	D	D	D

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)					
31-33	BOSTON-WORCESTER-LAWRENCE, MA-NH-ME-CT CMSA—Con.													
	Manufacturing—Con.													
315	Apparel mfg	3	194	73	i	D	D	D	D	D	D	D	D	
316	Leather & allied product mfg .	—	116	40	i	D	D	D	D	D	D	D	D	
321	Wood product mfg	3	198	38	h	D	D	D	D	D	D	D	D	
322	Paper mfg	—	166	118	j	D	D	D	D	D	D	D	D	
323	Printing & related support activities.....	3	1 077	234	j	D	D	D	D	D	D	D	107 053	
324	Petroleum & coal products mfg	1	45	10	f	D	D	D	D	D	D	D	D	
325	Chemical mfg	1	351	152	j	D	D	D	D	D	D	D	D	
326	Plastics & rubber products mfg	1	421	218		21 622	706 201	16 689	33 833	442 348	1 757 409	1 510 618	3 269 053	141 171
327	Nonmetallic mineral product mfg	1	245	76	i	D	D	D	D	D	D	D	D	
331	Primary metal mfg	—	98	49	i	D	D	D	D	D	D	D	D	
332	Fabricated metal product mfg	1	1 634	476		40 901	1 517 003	29 397	59 553	880 171	3 702 019	1 916 028	5 599 963	357 939
333	Machinery mfg	2	769	294		33 456	1 463 248	18 414	37 238	634 513	3 253 851	2 673 862	5 937 448	227 624
334	Computer & electronic product mfg.....	—	1 039	537	m	D	D	D	D	D	D	D	D	
335	Electrical equipment, appliance, & component mfg	1	228	124	j	D	D	D	D	D	D	D	D	
336	Transportation equipment mfg	—	167	61	j	D	D	D	D	D	D	D	D	
337	Furniture & related product mfg	1	339	71	i	D	D	D	D	D	D	D	D	
339	Miscellaneous mfg.....	1	737	189		24 304	919 994	13 974	27 807	372 702	2 449 330	1 422 551	3 902 291	D
	Boston, MA-NH PMSA													
31-33	Manufacturing	1	4 865	1 645		207 661	8 725 408	119 591	242 987	3 838 597	23 000 994	16 453 372	39 379 994	1 715 295
	Boston, MA-NH PMSA (MA Part)	1	4 829	1 630		206 345	8 676 512	118 686	241 497	3 806 656	22 908 566	16 350 156	39 183 910	1 707 820
	Boston, MA-NH PMSA (NH Part)	4	36	15		1 316	48 896	905	1 490	31 941	92 428	103 216	196 084	7 475
311	Food mfg.....	1	439	123		13 043	356 463	8 605	16 272	211 441	1 325 624	1 729 383	3 054 476	80 780
3113	Sugar & confectionery product mfg.....	—	34	11		1 171	26 892	915	1 678	19 056	129 107	113 801	244 202	9 334
31133	Confectionery mfg from purchased chocolate...	—	17	7	f	D	D	D	D	D	D	D	D	D
311330	Confectionery mfg from purchased chocolate.....	—	17	7	f	D	D	D	D	D	D	D	D	D
31134	Nonchocolate confectionery mfg	1	13	3	e	D	D	D	D	D	D	D	D	D
311340	Nonchocolate confectionery mfg ...	1	13	3	e	D	D	D	D	D	D	D	D	D
3114	Fruit & vegetable preserving & specialty food mfg	7	16	6	e	D	D	D	D	D	D	D	D	D
3115	Dairy product mfg	—	29	12		2 461	87 313	1 525	3 364	53 143	298 508	540 517	837 990	16 923
31151	Dairy product (except frozen) mfg	—	9	5	g	D	D	D	D	D	D	D	D	D
311511	Fluid milk mfg	—	7	5	g	D	D	D	D	D	D	D	D	D
31152	Ice cream & frozen dessert mfg	1	20	7	f	D	D	D	D	D	D	D	D	D
311520	Ice cream & frozen dessert mfg	1	20	7	f	D	D	D	D	D	D	D	D	D
3116	Meat product mfg.....	1	22	12		1 162	32 424	789	1 691	18 591	77 977	201 779	281 083	5 905
31161	Animal slaughtering & processing.....	1	22	12		1 162	32 424	789	1 691	18 591	77 977	201 779	281 083	5 905
311612	Meat processed from carcasses	1	11	4		633	17 877	344	692	7 945	48 605	116 263	165 030	D
311615	Poultry processing....	—	4	4	e	D	D	D	D	D	D	D	D	D

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Boston, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
311	Food mfg—Con.												
3117	Seafood product preparation & packaging..	1	31	9	1 641	47 793	996	1 906	26 081	162 198	344 698	506 199	7 451
31171	Seafood product preparation & packaging	1	31	9	1 641	47 793	996	1 906	26 081	162 198	344 698	506 199	7 451
311712	Fresh & frozen seafood processing ..	—	26	9	1 616	46 993	981	1 883	25 784	160 490	340 689	500 484	D
3118	Bakeries & tortilla mfg	1	259	50	4 454	100 140	2 971	5 048	63 237	360 512	160 792	521 187	24 627
31181	Bread & bakery product mfg	1	242	46	4 063	90 293	2 678	4 600	57 016	343 936	147 258	491 280	23 527
311811	Retail bakeries	4	167	14	1 292	16 295	764	939	8 329	34 205	19 096	53 427	D
311812	Commercial bakeries ..	1	64	28	2 457	66 354	1 701	3 232	44 094	291 451	113 254	404 497	20 813
311813	Frozen cakes, pies, & other pastries mfg ...	1	11	4	314	7 644	213	429	4 593	18 280	14 908	33 356	D
31182	Cookie, cracker, & pasta mfg	2	16	4	e	D	D	D	D	D	D	D	D
3119	Other food mfg	1	38	20	1 693	49 656	1 022	1 856	22 650	261 705	282 998	542 853	11 784
31191	Snack food mfg	2	9	7	353	9 894	229	418	5 121	48 875	41 028	89 545	2 172
31192	Coffee & tea mfg	1	6	3	389	12 877	114	224	2 605	67 020	96 529	162 113	D
311920	Coffee & tea mfg	1	6	3	389	12 877	114	224	2 605	67 020	96 529	162 113	D
31194	Seasoning & dressing mfg	—	7	4	f	D	D	D	D	D	D	D	D
311941	Mayonnaise, dressing, & other prepared sauce mfg	—	4	2	e	D	D	D	D	D	D	D	D
31199	All other food mfg	—	14	6	390	8 329	293	426	5 230	27 397	26 473	53 837	D
312	Beverage & tobacco product mfg	2	22	8	1 253	53 912	691	1 627	29 903	344 312	409 785	756 853	21 848
3121	Beverage mfg	2	22	8	1 253	53 912	691	1 627	29 903	344 312	409 785	756 853	21 848
31211	Soft drink & ice mfg	—	9	5	653	22 741	264	548	8 898	141 250	247 450	388 664	D
312111	Soft drink mfg	—	4	4	e	D	D	D	D	D	D	D	D
31212	Breweries	—	10	2	e	D	D	D	D	D	D	D	9 381
312120	Breweries	—	10	2	e	D	D	D	D	D	D	D	9 381
313	Textile mills	3	53	28	2 287	80 496	1 603	3 562	45 280	182 371	179 988	360 737	12 191
3132	Fabric mills	6	24	13	f	D	D	D	D	D	D	D	D
31323	Nonwoven fabric mills...	8	6	4	402	13 524	282	690	7 761	25 946	39 464	65 024	D
313230	Nonwoven fabric mills.	8	6	4	402	13 524	282	690	7 761	25 946	39 464	65 024	D
3133	Textile & fabric finishing & fabric coating mills	2	26	15	1 385	53 033	923	2 134	29 307	130 903	120 082	251 740	D
31331	Textile & fabric finishing mills	3	16	9	818	27 429	550	1 182	15 479	71 971	64 982	138 043	D
313311	Broadwoven fabric finishing mills	3	13	8	677	23 706	434	935	12 851	66 469	62 370	130 038	D
31332	Fabric coating mills	—	10	6	567	25 604	373	952	13 828	58 932	55 100	113 697	D
313320	Fabric coating mills ...	—	10	6	567	25 604	373	952	13 828	58 932	55 100	113 697	D
314	Textile product mills	1	105	22	1 587	36 128	1 225	2 396	20 596	93 224	91 238	182 282	4 073
3141	Textile furnishings mills....	2	45	11	938	19 591	755	1 489	11 496	56 497	54 700	109 899	D
31412	Curtain & linen mills.....	2	42	10	f	D	D	D	D	D	D	D	D
314121	Curtain & drapery mills	3	35	6	f	D	D	D	D	D	D	D	D
3149	Other textile product mills..	1	60	11	649	16 537	470	907	9 100	36 727	36 538	72 383	D
31491	Textile bag & canvas mills	1	23	5	274	6 803	208	395	4 296	12 969	12 603	26 090	D
314912	Canvas & related product mills	1	21	5	e	D	D	D	D	D	D	D	D
31499	All other textile product mills	1	37	6	375	9 734	262	512	4 804	23 758	23 935	46 293	2 561
314999	All other miscellaneous textile product mills ..	1	35	6	e	D	D	D	D	D	D	D	D

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Boston, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
315	Apparel mfg	2	118	39	3 200	79 589	2 380	4 426	37 774	164 035	191 778	344 002	4 225
3152	Cut & sew apparel mfg	2	84	33	h	D	D	D	D	D	D	D	3 787
31521	Cut & sew apparel contractors	7	42	14	896	13 071	852	1 425	11 448	19 254	4 305	23 573	537
315212	Women's, girls', & infants' cut & sew apparel contractors ..	8	40	13	f	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	2	11	5	510	10 038	322	766	6 239	24 326	32 489	56 824	508
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	2	7	4	e	D	D	D	D	D	D	D	487
31523	Women's & girls' cut & sew apparel mfg	1	22	13	1 316	45 332	814	1 523	13 463	99 430	129 597	215 000	2 593
315233	Women's & girls' cut & sew dress mfg	6	5	4	290	6 895	212	390	3 663	12 499	13 172	25 136	D
315234	Women's & girls' cut & sew suit, coat, skirt mfg	—	4	4	495	24 477	217	362	2 743	38 961	41 327	74 089	D
315239	Women's & girls' cut & sew other outerwear mfg	—	7	3	268	10 032	157	337	4 080	39 267	66 945	98 926	D
3159	Apparel accessories & other apparel mfg	1	33	6	e	D	D	D	D	D	D	D	D
31599	Apparel accessories & other apparel mfg	1	33	6	e	D	D	D	D	D	D	D	D
315999	Other apparel accessories & other apparel mfg	1	29	5	e	D	D	D	D	D	D	D	D
316	Leather & allied product mfg .	2	61	18	1 532	34 455	1 276	2 553	23 871	85 558	80 505	164 428	D
3161	Leather & hide tanning & finishing	3	27	5	411	12 952	332	721	8 499	44 387	33 696	76 174	961
31611	Leather & hide tanning & finishing	3	27	5	411	12 952	332	721	8 499	44 387	33 696	76 174	961
316110	Leather & hide tanning & finishing	3	27	5	411	12 952	332	721	8 499	44 387	33 696	76 174	961
3162	Footwear mfg	2	8	4	f	D	D	D	D	D	D	D	D
31621	Footwear mfg	2	8	4	f	D	D	D	D	D	D	D	D
316219	Other footwear mfg ...	2	3	3	e	D	D	D	D	D	D	D	D
3169	Other leather & allied product mfg	1	26	9	f	D	D	D	D	D	D	D	D
31699	Other leather & allied product mfg	1	26	9	f	D	D	D	D	D	D	D	D
321	Wood product mfg	5	72	9	g	D	D	D	D	D	D	D	D
3219	Other wood product mfg ...	4	59	9	970	28 281	724	1 555	18 259	53 564	67 944	121 290	2 880
32191	Millwork	2	27	3	287	8 704	209	433	5 331	14 805	24 679	39 638	548
32199	All other wood product mfg	5	22	4	503	13 978	372	830	8 932	28 821	34 171	62 550	1 760
321999	All other miscellaneous wood product mfg ...	1	20	3	e	D	D	D	D	D	D	D	D
322	Paper mfg	—	82	57	i	D	D	D	D	D	D	D	D
3221	Pulp, paper, & paperboard mills	—	3	3	e	D	D	D	D	D	D	D	D
3222	Converted paper product mfg	1	79	54	i	D	D	D	D	D	D	D	34 456
32221	Paperboard container mfg	1	34	29	2 187	78 230	1 622	3 539	46 296	172 238	228 004	400 821	17 801
322211	Corrugated & solid fiber box mfg	1	15	13	1 099	39 819	761	1 589	21 667	89 222	133 403	222 003	8 861
322212	Folding paperboard box mfg	1	11	9	785	29 911	626	1 448	18 785	61 782	64 986	128 025	8 058
32222	Paper bag & coated & treated paper mfg	—	17	11	g	D	D	D	D	D	D	D	D
322222	Coated & laminated paper mfg	—	15	10	g	D	D	D	D	D	D	D	13 666
32223	Stationery product mfg ..	—	17	8	f	D	D	D	D	D	D	D	D
322231	Die-cut paper & paperboard office supplies mfg	—	6	3	f	D	D	D	D	D	D	D	563
32229	Other converted paper product mfg	2	11	6	522	17 364	396	984	10 606	90 360	51 023	142 153	1 853
322299	All other converted paper product mfg ...	2	10	6	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Boston, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
323	Printing & related support activities.....	2	696	156	13 955	523 487	10 060	20 534	329 122	1 056 500	618 669	1 680 590	69 873
3231	Printing & related support activities.....	2	696	156	13 955	523 487	10 060	20 534	329 122	1 056 500	618 669	1 680 590	69 873
32311	Printing.....	2	604	131	12 485	470 720	8 915	18 106	290 682	961 383	588 120	1 552 401	60 202
323110	Commercial lithographic printing ..	2	296	74	6 785	279 192	4 672	9 625	167 288	536 631	322 115	860 463	36 648
323113	Commercial screen printing.....	5	62	18	1 480	48 625	1 091	2 137	32 254	85 905	72 210	158 574	6 963
323114	Quick printing.....	1	143	7	960	27 681	679	1 253	17 163	58 401	34 364	92 587	3 340
323116	Manifold business form printing.....	—	11	4	400	18 885	281	628	12 861	78 205	30 035	108 468	1 067
323117	Book printing.....	3	18	15	1 931	66 693	1 520	3 166	45 379	135 705	84 788	221 147	7 538
323119	Other commercial printing.....	3	47	4	417	15 049	301	597	7 739	29 438	25 952	55 345	3 240
32312	Support activities for printing.....	1	92	25	1 470	52 767	1 145	2 428	38 440	95 117	30 549	128 189	9 671
323121	Tradebinding & related work.....	1	27	11	718	21 117	576	1 195	16 406	38 440	13 227	51 770	2 188
323122	Prepress services.....	2	65	14	752	31 650	569	1 233	22 034	56 677	17 322	76 419	7 483
324	Petroleum & coal products mfg.....	—	22	6	619	26 524	454	1 079	18 551	65 014	125 443	188 433	7 704
3241	Petroleum & coal products mfg.....	—	22	6	619	26 524	454	1 079	18 551	65 014	125 443	188 433	7 704
32412	Asphalt paving, roofing, & saturated materials mfg.....	—	19	6	597	25 822	440	1 054	18 241	63 715	122 700	184 416	D
324121	Asphalt paving mixture & block mfg.....	1	16	3	295	13 897	236	587	11 067	38 579	80 376	118 322	D
324122	Asphalt shingle & coating materials mfg.....	—	3	3	302	11 925	204	467	7 174	25 136	42 324	66 094	D
325	Chemical mfg.....	1	230	96	11 746	548 448	5 973	12 157	222 773	1 577 644	1 458 388	3 059 376	156 325
3251	Basic chemical mfg.....	1	25	11	903	47 810	450	758	22 142	143 153	83 015	227 313	13 130
32519	Other basic organic chemical mfg.....	—	12	7	f	D	D	D	D	D	D	D	D
325193	Ethyl alcohol mfg.....	—	2	1	e	D	D	D	D	D	D	D	D
325199	All other basic organic chemical mfg.....	—	8	6	e	D	D	D	D	D	D	D	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg.....	1	15	10	f	D	D	D	D	D	D	D	14 473
32521	Resin & synthetic rubber mfg.....	1	13	10	f	D	D	D	D	D	D	D	D
325211	Plastics material & resin mfg.....	1	11	10	f	D	D	D	D	D	D	D	D
3254	Pharmaceutical & medicine mfg.....	1	49	26	3 360	128 336	1 739	3 562	58 462	560 862	352 559	912 350	56 000
32541	Pharmaceutical & medicine mfg.....	1	49	26	3 360	128 336	1 739	3 562	58 462	560 862	352 559	912 350	56 000
325412	Pharmaceutical preparation mfg.....	2	20	7	1 078	36 841	567	1 362	19 843	100 484	104 665	202 964	D
325413	In-vitro diagnostic substance mfg.....	—	10	9	1 193	55 646	415	791	19 196	185 331	96 151	283 999	D
325414	Biological product (except diagnostic) mfg.....	—	11	7	f	D	D	D	D	D	D	D	D
3255	Paint, coating, & adhesive mfg.....	1	53	21	1 507	61 714	744	1 540	25 624	233 935	188 201	421 067	6 334
32551	Paint & coating mfg.....	1	29	12	f	D	D	D	D	D	D	D	3 075
325510	Paint & coating mfg.....	1	29	12	f	D	D	D	D	D	D	D	3 075
32552	Adhesive mfg.....	2	24	9	f	D	D	D	D	D	D	D	3 259
325520	Adhesive mfg.....	2	24	9	f	D	D	D	D	D	D	D	3 259
3256	Soap, cleaning compound, & toilet preparation mfg ..	4	32	8	836	31 829	440	933	12 629	125 288	124 192	248 346	D
32561	Soap & cleaning compound mfg.....	3	28	7	f	D	D	D	D	D	D	D	D
325613	Surface active agent mfg.....	1	8	3	e	D	D	D	D	D	D	D	D
32562	Toilet preparation mfg....	9	4	1	e	D	D	D	D	D	D	D	D
325620	Toilet preparation mfg....	9	4	1	e	D	D	D	D	D	D	D	D

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	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Boston, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
325	Chemical mfg—Con.												
3259	Other chemical product mfg	—	44	19	4 269	238 748	2 201	4 492	87 881	421 061	563 268	1 008 391	58 635
32591	Printing ink mfg	1	13	5	e	D	D	D	D	D	D	D	D
325910	Printing ink mfg	1	13	5	e	D	D	D	D	D	D	D	D
32599	All other chemical product & preparation mfg	—	31	14	h	D	D	D	D	D	D	D	D
325991	Custom compounding of purchased resin ...	1	13	6	e	D	D	D	D	D	D	D	2 178
325992	Photographic film, paper, plate, & chemical mfg	—	5	2	g	D	D	D	D	D	D	D	D
325998	All other miscellaneous chemical product & preparation mfg	—	13	6	1 339	78 097	605	1 145	26 438	239 510	181 592	425 934	D
326	Plastics & rubber products mfg	1	170	87	7 359	244 164	5 569	10 745	145 260	634 789	541 925	1 188 352	47 837
3261	Plastics product mfg	2	142	75	6 494	211 938	4 953	9 604	130 254	522 442	442 506	976 692	43 128
32611	Unsupported plastics film, sheet, & bag mfg ..	—	15	10	897	28 468	691	1 190	15 999	95 389	70 159	168 506	5 399
326111	Unsupported plastics bag mfg	—	6	4	e	D	D	D	D	D	D	D	D
326113	Unsupported plastics film & sheet (except packaging) mfg	2	8	5	366	12 325	292	500	7 674	22 295	29 754	52 808	1 268
32614	Polystyrene foam product mfg	2	2	2	e	D	D	D	D	D	D	D	D
326140	Polystyrene foam product mfg	2	2	2	e	D	D	D	D	D	D	D	D
32615	Urethane & other foam product (except polystyrene) mfg	—	7	5	254	10 127	184	381	5 142	19 749	24 604	44 346	1 055
326150	Urethane & other foam product (except polystyrene) mfg	—	7	5	254	10 127	184	381	5 142	19 749	24 604	44 346	1 055
32616	Plastics bottle mfg	—	4	3	277	8 044	261	543	7 230	26 383	27 825	54 212	2 420
326160	Plastics bottle mfg	—	4	3	277	8 044	261	543	7 230	26 383	27 825	54 212	2 420
32619	Other plastics product mfg	2	100	52	4 299	144 838	3 203	6 173	87 973	332 660	264 354	603 934	26 720
326199	All other plastics product mfg	2	98	52	h	D	D	D	D	D	D	D	D
3262	Rubber product mfg	—	28	12	865	32 226	616	1 141	15 006	112 347	99 419	211 660	4 709
32629	Other rubber product mfg	—	25	11	f	D	D	D	D	D	D	D	D
326299	All other rubber product mfg	—	19	10	739	26 719	539	983	12 580	99 230	88 791	187 878	4 437
327	Nonmetallic mineral product mfg	2	123	32	2 584	89 795	1 928	3 684	55 309	219 256	184 011	402 443	22 867
3271	Clay product & refractory mfg	1	21	7	f	D	D	D	D	D	D	D	D
32711	Pottery, ceramics, & plumbing fixture mfg ...	1	16	6	e	D	D	D	D	D	D	D	D
3272	Glass & glass product mfg .	1	21	2	376	14 269	320	622	11 241	44 151	28 788	71 481	D
32721	Glass & glass product mfg	1	21	2	376	14 269	320	622	11 241	44 151	28 788	71 481	D
327213	Glass container mfg ..	—	1	1	e	D	D	D	D	D	D	D	D
3273	Cement & concrete product mfg	2	45	18	1 024	36 437	768	1 487	24 345	89 360	93 877	183 624	13 393
32732	Ready-mix concrete mfg .	3	19	10	499	20 861	394	843	15 489	56 242	66 880	123 077	10 281
327320	Ready-mix concrete mfg	3	19	10	499	20 861	394	843	15 489	56 242	66 880	123 077	10 281
32739	Other concrete product mfg	2	14	5	e	D	D	D	D	D	D	D	2 233
327390	Other concrete product mfg	2	14	5	e	D	D	D	D	D	D	D	2 233
3279	Other nonmetallic mineral product mfg	2	31	4	f	D	D	D	D	D	D	D	D
32799	All other nonmetallic mineral product mfg ...	1	26	3	452	17 820	293	539	7 066	30 012	29 018	59 355	2 280

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	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Boston, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
331	Primary metal mfg	2	42	16	1 358	48 410	989	2 067	30 302	142 918	212 911	317 251	9 148
3313	Alumina & aluminum production & processing . .	8	2	2	e	D	D	D	D	D	D	D	D
33131	Alumina & aluminum production & processing	8	2	2	e	D	D	D	D	D	D	D	D
3314	Nonferrous metal (except aluminum) production & processing	—	5	2	e	D	D	D	D	D	D	D	D
33149	Other nonferrous metal rolling, drawing, extruding, & alloying . . .	—	2	1	e	D	D	D	D	D	D	D	D
331492	Other nonferrous metal secondary smelting, refining, & alloying . . .	—	1	1	e	D	D	D	D	D	D	D	D
3315	Foundries	2	30	8	558	17 699	459	944	13 197	34 056	19 104	53 382	987
33151	Ferrous metal foundries . .	—	10	4	282	8 887	239	524	7 392	17 925	8 149	26 187	340
33152	Nonferrous metal foundries	4	20	4	276	8 812	220	420	5 805	16 131	10 955	27 195	647
332	Fabricated metal product mfg	—	830	255	21 104	819 229	14 686	30 102	465 925	2 261 396	932 677	3 173 860	262 552
3321	Forging & stamping	—	48	18	1 658	58 274	1 285	2 681	37 762	126 206	74 221	199 822	D
33211	Forging & stamping	—	48	18	1 658	58 274	1 285	2 681	37 762	126 206	74 221	199 822	D
332116	Metal stamping	—	37	16	1 373	48 001	1 098	2 296	31 088	109 766	60 643	168 367	D
3322	Cutlery & handtool mfg	—	17	8	g	D	D	D	D	D	D	D	D
33221	Cutlery & handtool mfg . . .	—	17	8	g	D	D	D	D	D	D	D	D
332211	Cutlery & flatware (except precious) mfg	—	1	1	g	D	D	D	D	D	D	D	D
332212	Hand & edge tool mfg	1	16	7	e	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg	—	167	70	4 204	154 446	2 928	5 661	91 666	288 835	199 213	488 421	D
33231	Plate work & fabricated structural product mfg . .	1	38	15	729	26 176	485	1 030	14 722	60 641	41 286	102 252	D
332312	Fabricated structural metal mfg	2	28	9	461	16 494	293	609	8 784	42 020	28 900	70 984	D
33232	Ornamental & architectural metal products mfg	—	129	55	3 475	128 270	2 443	4 631	76 944	228 194	157 927	386 169	D
332322	Sheet metal work mfg	—	90	46	2 732	105 782	1 998	3 742	65 040	186 090	117 737	304 173	D
332323	Ornamental & architectural metal work mfg	—	30	6	f	D	D	D	D	D	D	D	1 491
3324	Boiler, tank, & shipping container mfg	—	18	6	395	13 938	272	586	6 686	33 099	37 358	71 944	D
3325	Hardware mfg	—	9	4	489	13 946	352	775	7 124	38 778	22 778	61 834	401
33251	Hardware mfg	—	9	4	489	13 946	352	775	7 124	38 778	22 778	61 834	401
332510	Hardware mfg	—	9	4	489	13 946	352	775	7 124	38 778	22 778	61 834	401
3326	Spring & wire product mfg . .	—	10	5	e	D	D	D	D	D	D	D	D
33261	Spring & wire product mfg	—	10	5	e	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	2	382	85	6 300	239 508	4 636	9 393	147 807	437 998	213 765	650 944	44 236
33271	Machine shops	1	321	55	4 412	169 606	3 186	6 315	104 718	310 390	158 268	470 081	33 016
332710	Machine shops	1	321	55	4 412	169 606	3 186	6 315	104 718	310 390	158 268	470 081	33 016
33272	Turned product & screw, nut, & bolt mfg	2	61	30	1 888	69 902	1 450	3 078	43 089	127 608	55 497	180 863	11 220
332721	Precision turned product mfg	2	47	24	1 262	44 827	979	2 052	29 975	90 506	32 003	119 242	8 073
332722	Bolt, nut, screw, rivet, & washer mfg	3	14	6	626	25 075	471	1 026	13 114	37 102	23 494	61 621	3 147
3328	Coating, engraving, heat treating, & allied activities .	1	104	37	1 944	66 512	1 471	3 244	41 279	127 890	36 984	165 493	D
33281	Coating, engraving, heat treating, & allied activities	1	104	37	1 944	66 512	1 471	3 244	41 279	127 890	36 984	165 493	D
332811	Metal heat treating	2	12	5	301	12 330	238	574	8 442	25 439	6 028	31 792	4 419
332812	Metal coating/engraving (exc jewelry/silverware)/allied services	1	45	19	868	29 038	655	1 521	17 462	56 819	15 760	72 635	2 766
332813	Electroplating, plating, polishing, anodizing, & coloring	1	47	13	775	25 144	578	1 149	15 375	45 632	15 196	61 066	D

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON–WORCESTER–LAWRENCE, MA–NH–ME–CT CMSA—Con.												
	Boston, MA–NH PMSA—Con.												
31-33	Manufacturing—Con.												
332	Fabricated metal product mfg—Con.												
3329	Other fabricated metal product mfg.....	—	75	22	3 470	159 892	1 708	3 185	58 048	411 529	208 980	617 927	24 508
33291	Metal valve mfg.....	—	13	5	888	42 354	494	976	20 571	102 521	55 772	155 991	6 674
332911	Industrial valve mfg...	—	6	3	548	28 466	253	494	12 134	60 217	31 142	90 667	D
332913	Plumbing fixture fitting & trim mfg.....	—	2	1	e	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg.....	—	62	17	2 582	117 538	1 214	2 209	37 477	309 008	153 208	461 936	17 834
332993	Ammunition (except small arms) mfg....	—	5	5	1 465	79 261	425	667	14 144	214 458	108 976	322 828	D
332999	All other miscellaneous fabricated metal product mfg.....	1	42	11	938	32 066	644	1 206	18 657	77 862	35 688	113 838	3 876
333	Machinery mfg.....	1	341	135	15 699	708 297	8 343	16 570	284 937	1 666 844	1 336 032	3 019 286	130 848
3331	Agriculture, construction, & mining machinery mfg....	2	10	4	342	12 892	213	482	6 081	24 504	37 232	61 187	2 457
3332	Industrial machinery mfg ..	1	84	36	7 238	347 267	3 326	6 677	117 309	922 181	696 660	1 623 560	67 627
33322	Plastics & rubber industry machinery mfg.....	—	10	4	785	34 364	368	797	14 792	100 782	92 895	196 933	D
333220	Plastics & rubber industry machinery mfg.....	—	10	4	785	34 364	368	797	14 792	100 782	92 895	196 933	D
33329	Other industrial machinery mfg.....	1	71	31	6 422	312 144	2 933	5 847	102 058	820 377	603 088	1 425 056	63 660
333291	Paper industry machinery mfg.....	9	4	2	e	D	D	D	D	D	D	D	1 300
333293	Printing machinery & equipment mfg.....	5	12	7	906	39 539	496	1 153	16 741	65 801	55 773	121 394	3 108
333295	Semiconductor machinery mfg.....	—	15	11	3 546	181 660	1 550	2 825	50 629	560 410	415 359	975 755	26 155
333298	All other industrial machinery mfg.....	4	32	11	1 607	76 558	657	1 409	26 739	166 523	103 528	270 498	32 919
3333	Commercial & service industry machinery mfg ..	2	47	22	2 283	103 070	1 332	2 749	43 470	164 406	133 700	299 342	26 666
33331	Commercial & service industry machinery mfg.....	2	47	22	2 283	103 070	1 332	2 749	43 470	164 406	133 700	299 342	26 666
333314	Optical instrument & lens mfg.....	1	22	10	877	33 270	472	911	14 925	85 856	36 930	122 633	5 241
333315	Photographic & photocopying equipment mfg.....	2	7	3	973	54 740	582	1 293	21 359	47 603	65 739	114 584	D
333319	Other commercial & service industry machinery mfg.....	—	13	7	355	12 169	224	443	5 921	23 209	26 114	49 417	1 093
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg.....	2	20	7	804	35 996	500	1 013	17 495	70 339	65 178	136 063	4 941
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg ..	2	20	7	804	35 996	500	1 013	17 495	70 339	65 178	136 063	4 941
333415	AC & warm air heating & commercial/ industrial refrig equip mfg.....	—	8	4	535	24 539	305	637	11 009	44 280	40 341	83 249	2 354
3335	Metalworking machinery mfg.....	2	70	15	892	33 162	577	1 077	18 452	64 475	37 463	102 337	3 570
33351	Metalworking machinery mfg.....	2	70	15	892	33 162	577	1 077	18 452	64 475	37 463	102 337	3 570
333512	Machine tool (metal cutting types) mfg ...	1	8	5	280	11 994	152	308	5 337	22 573	16 144	39 921	905
3336	Engine, turbine, & power transmission equipment mfg.....	1	12	4	276	12 727	186	358	5 953	25 655	18 137	42 835	1 280
33361	Engine, turbine, & power transmission equipment mfg.....	1	12	4	276	12 727	186	358	5 953	25 655	18 137	42 835	1 280

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	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Boston, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
333	Machinery mfg—Con.												
3339	Other general-purpose machinery mfg	1	98	47	3 864	163 183	2 209	4 214	76 177	395 284	347 662	753 962	24 307
33391	Pump & compressor mfg	2	7	6	757	29 634	374	788	12 678	88 008	100 376	189 882	5 617
333912	Air & gas compressor mfg	3	3	3	f	D	D	D	D	D	D	D	D
33392	Material handling equipment mfg	2	15	9	330	11 695	201	455	6 468	19 833	34 847	55 140	1 007
33399	All other general-purpose machinery mfg	—	76	32	2 777	121 854	1 634	2 971	57 031	287 443	212 439	508 940	17 683
333993	Packaging machinery mfg	—	9	3	e	D	D	D	D	D	D	D	974
333994	Industrial process furnace & oven mfg ..	5	10	4	e	D	D	D	D	D	D	D	D
333999	All other miscellaneous general-purpose machinery mfg	—	44	20	1 645	74 838	895	1 615	35 376	184 206	142 144	334 340	12 648
334	Computer & electronic product mfg	1	593	307	71 715	3 560 208	31 529	65 239	1 196 180	9 355 171	4 857 737	14 134 592	653 035
3341	Computer & peripheral equipment mfg	1	73	39	6 295	332 070	2 205	4 592	107 713	1 158 410	891 547	2 039 708	64 003
33411	Computer & peripheral equipment mfg	1	73	39	6 295	332 070	2 205	4 592	107 713	1 158 410	891 547	2 039 708	64 003
334111	Electronic computer mfg	—	15	7	g	D	D	D	D	D	D	D	D
334113	Computer terminal mfg	—	8	4	752	39 985	86	216	2 893	53 725	98 246	156 767	D
334119	Other computer peripheral equipment mfg	1	45	26	h	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	2	62	40	10 627	558 748	6 358	12 857	310 138	1 324 035	714 951	2 043 614	D
33421	Telephone apparatus mfg	5	20	12	h	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	5	20	12	h	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg	1	31	21	7 454	370 795	4 983	10 184	252 881	827 038	467 752	1 290 448	38 496
334220	Radio & TV broadcasting & wireless communications equipment mfg	1	31	21	7 454	370 795	4 983	10 184	252 881	827 038	467 752	1 290 448	38 496
33429	Other communications equipment mfg	4	11	7	e	D	D	D	D	D	D	D	D
334290	Other communications equipment mfg	4	11	7	e	D	D	D	D	D	D	D	D
3343	Audio & video equipment mfg	2	13	4	f	D	D	D	D	D	D	D	D
33431	Audio & video equipment mfg	2	13	4	f	D	D	D	D	D	D	D	D
334310	Audio & video equipment mfg	2	13	4	f	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	—	210	105	19 102	823 207	10 650	22 288	301 390	2 424 368	1 059 968	3 451 797	296 371
33441	Semiconductor & other electronic component mfg	—	210	105	19 102	823 207	10 650	22 288	301 390	2 424 368	1 059 968	3 451 797	296 371
334411	Electron tube mfg	—	6	2	f	D	D	D	D	D	D	D	1 339
334412	Bare printed circuit board mfg	—	30	13	1 460	60 317	724	1 668	20 478	174 321	92 602	259 613	10 616
334413	Semiconductor & related device mfg ...	—	47	23	6 679	302 222	3 454	6 599	110 790	1 029 702	330 775	1 342 388	216 745
334417	Electronic connector mfg	1	14	10	905	33 425	646	1 464	19 476	94 427	39 069	125 562	5 091
334418	Printed circuit assembly (electronic assembly) mfg	—	34	27	5 930	285 050	3 302	7 181	85 319	824 524	425 247	1 248 872	45 518
334419	Other electronic component mfg	2	59	24	3 145	108 048	1 842	4 039	46 931	212 990	145 776	359 920	16 297

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

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Boston, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
334	Computer & electronic product mfg—Con.												
3345	Navigational, measuring, medical, & control instruments mfg	-	209	113	34 208	1 788 198	11 330	23 490	446 000	4 287 122	1 995 540	6 244 357	197 807
33451	Navigational, measuring, medical, & control instruments mfg	-	209	113	34 208	1 788 198	11 330	23 490	446 000	4 287 122	1 995 540	6 244 357	197 807
334510	Electromedical & electrotherapeutic apparatus mfg	-	24	12	g	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	27	10	j	D	D	D	D	D	D	D	D
334512	Automatic environmental control mfg	-	6	4	354	12 924	212	483	5 418	28 633	14 892	43 902	D
334513	Industrial process control instrument mfg	-	37	21	4 053	187 614	1 656	3 193	48 333	519 852	206 334	731 541	20 502
334515	Electricity measuring & testing instrument mfg	1	30	18	4 495	204 056	1 452	2 682	48 955	659 707	279 305	943 702	41 785
334516	Analytical laboratory instrument mfg	-	40	20	4 247	216 787	1 214	2 496	41 328	479 231	306 994	784 207	28 335
334517	Irradiation apparatus mfg	-	6	4	g	D	D	D	D	D	D	D	D
334519	Other measuring & controlling device mfg	1	33	19	g	D	D	D	D	D	D	D	8 496
3346	Mfg & reproducing magnetic & optical media	1	26	6	f	D	D	D	D	D	D	D	25 320
33461	Mfg & reproducing magnetic & optical media	1	26	6	f	D	D	D	D	D	D	D	25 320
334613	Magnetic & optical recording media mfg	1	14	5	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	1	132	68	8 669	309 635	5 605	11 807	150 715	886 037	640 848	1 521 168	47 017
3351	Electric lighting equipment mfg	1	16	8	g	D	D	D	D	D	D	D	D
33511	Electric lamp bulb & part mfg	-	1	1	f	D	D	D	D	D	D	D	D
335110	Electric lamp bulb & part mfg	-	1	1	f	D	D	D	D	D	D	D	D
33512	Lighting fixture mfg	2	15	7	f	D	D	D	D	D	D	D	D
335121	Residential electric lighting fixture mfg	-	5	3	e	D	D	D	D	D	D	D	D
335122	Commercial/industrial/institutional electric lighting fixture mfg	2	5	3	309	9 246	244	472	7 025	25 149	47 800	73 305	D
3353	Electrical equipment mfg	1	50	21	2 840	110 044	1 610	3 569	42 704	362 646	148 061	510 051	D
33531	Electrical equipment mfg	1	50	21	2 840	110 044	1 610	3 569	42 704	362 646	148 061	510 051	D
335313	Switchgear & switchboard apparatus mfg	-	9	6	g	D	D	D	D	D	D	D	D
335314	Relay & industrial control mfg	1	27	13	1 122	45 425	596	1 076	14 550	103 347	79 863	183 002	D
3359	Other electrical equipment & component mfg	1	62	36	h	D	D	D	D	D	D	D	D
33592	Communication & energy wire & cable mfg	-	11	11	920	35 771	609	1 293	17 135	91 828	142 361	229 745	7 283
335929	Other communication & energy wire mfg	-	10	10	f	D	D	D	D	D	D	D	D
33593	Wiring device mfg	-	20	10	2 018	66 578	1 359	2 806	36 306	158 161	101 775	257 640	D
335931	Current-carrying wiring device mfg	-	16	7	1 338	44 750	827	1 696	22 524	128 310	85 788	209 442	7 611
335932	Noncurrent-carrying wiring device mfg	-	4	3	680	21 828	532	1 110	13 782	29 851	15 987	48 198	D
33599	All other electrical equipment & component mfg	3	27	14	g	D	D	D	D	D	D	D	D
335999	All other miscellaneous electrical equipment & component mfg	3	26	14	g	D	D	D	D	D	D	D	D

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	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Boston, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
336	Transportation equipment mfg	—	106	37	7 538	364 140	4 882	9 426	202 821	840 113	1 245 170	2 113 979	66 453
3363	Motor vehicle parts mfg . . .	3	51	14	1 197	44 316	789	1 709	22 193	101 529	121 781	222 468	8 702
33632	Motor vehicle electrical & electronic equipment mfg	4	23	8	487	21 192	220	444	6 971	59 394	78 269	135 847	3 803
336322	Other motor vehicle electrical & electronic equipment mfg	4	23	8	487	21 192	220	444	6 971	59 394	78 269	135 847	3 803
33637	Motor vehicle metal stamping	—	6	4	331	13 421	243	638	8 205	25 525	21 913	48 293	D
336370	Motor vehicle metal stamping	—	6	4	331	13 421	243	638	8 205	25 525	21 913	48 293	D
3364	Aerospace product & parts mfg	—	16	12	5 745	302 800	3 641	6 851	169 693	712 491	1 092 377	1 833 687	56 755
33641	Aerospace product & parts mfg	—	16	12	5 745	302 800	3 641	6 851	169 693	712 491	1 092 377	1 833 687	56 755
336412	Aircraft engine & engine parts mfg	—	12	12	5 722	302 000	3 627	6 826	169 259	710 874	1 091 525	1 831 152	D
337	Furniture & related product mfg	1	179	29	2 756	84 204	2 064	4 214	53 299	188 925	164 706	355 571	D
3371	Household & institutional furniture & kitchen cabinet mfg	2	131	17	1 677	51 200	1 251	2 539	32 954	105 848	71 424	177 661	4 986
33711	Wood kitchen cabinet & counter top mfg	3	70	5	443	13 826	348	733	9 796	26 721	21 044	48 026	657
337110	Wood kitchen cabinet & counter top mfg ...	3	70	5	443	13 826	348	733	9 796	26 721	21 044	48 026	657
33712	Household & institutional furniture mfg	1	61	12	1 234	37 374	903	1 806	23 158	79 127	50 380	129 635	4 329
337122	Nonupholstered wood household furniture mfg	3	35	5	338	7 564	288	565	5 556	14 483	14 464	28 882	725
337127	Institutional furniture mfg	—	7	4	650	23 177	431	861	13 570	51 098	24 518	75 835	2 613
3372	Office furniture (including fixtures) mfg	1	32	7	522	16 508	385	805	9 575	25 235	32 819	58 815	D
33721	Office furniture (including fixtures) mfg	1	32	7	522	16 508	385	805	9 575	25 235	32 819	58 815	D
3379	Other furniture related product mfg	1	16	5	557	16 496	428	870	10 770	57 842	60 463	119 095	4 326
33791	Mattress mfg	1	8	5	479	14 758	373	762	9 741	54 614	56 854	112 156	4 254
337910	Mattress mfg	1	8	5	479	14 758	373	762	9 741	54 614	56 854	112 156	4 254
339	Miscellaneous mfg	1	449	117	13 147	520 051	7 079	13 937	175 951	1 322 361	879 569	2 197 289	66 910
3391	Medical equipment & supplies mfg	2	219	65	7 381	323 416	3 762	7 535	94 219	839 827	413 803	1 258 461	47 265
33911	Medical equipment & supplies mfg	2	219	65	7 381	323 416	3 762	7 535	94 219	839 827	413 803	1 258 461	47 265
339111	Laboratory apparatus & furniture mfg	—	23	10	f	D	D	D	D	D	D	D	D
339112	Surgical & medical instrument mfg	2	76	36	4 893	236 441	2 414	5 013	59 255	634 748	301 188	937 892	38 456
339113	Surgical appliance & supplies mfg	2	23	11	747	26 140	483	961	13 436	74 572	28 541	104 273	2 936
339115	Ophthalmic goods mfg	—	12	3	452	12 969	185	346	3 443	41 107	16 413	56 406	856
339116	Dental laboratories ...	6	74	5	e	D	D	D	D	D	D	D	685
3399	Other miscellaneous mfg ..	1	230	52	5 766	196 635	3 317	6 402	81 732	482 534	465 766	938 828	19 645
33991	Jewelry & silverware mfg	—	48	11	1 450	56 868	690	1 387	17 036	131 241	199 234	320 964	4 335
339911	Jewelry (except costume) mfg	2	25	3	380	13 380	225	436	5 603	42 324	40 026	82 137	798
339912	Silverware & plated ware mfg	—	6	4	861	38 124	295	638	8 111	80 427	151 012	222 098	D
33992	Sporting & athletic goods mfg	5	15	4	305	9 604	202	402	3 195	31 885	29 830	63 789	D
339920	Sporting & athletic goods mfg	5	15	4	305	9 604	202	402	3 195	31 885	29 830	63 789	D
33993	Doll, toy, & game mfg ...	2	16	3	255	6 597	168	294	3 338	19 605	13 631	32 179	D
339932	Game, toy, & children's vehicle mfg	2	14	3	e	D	D	D	D	D	D	D	D
33995	Sign mfg	1	68	9	733	22 357	482	901	12 786	39 214	20 890	59 811	1 213
339950	Sign mfg	1	68	9	733	22 357	482	901	12 786	39 214	20 890	59 811	1 213

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	Boston, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
339	Miscellaneous mfg—Con.												
3399	Other miscellaneous mfg—Con.												
33999	All other miscellaneous mfg	1	68	22	2 811	95 494	1 629	3 152	42 089	246 135	194 514	439 858	11 458
339991	Gasket, packing, & sealing device mfg...	2	12	7	1 030	38 220	579	1 118	17 615	103 409	59 273	161 363	5 430
339992	Musical instrument mfg	1	15	6	435	13 782	292	578	7 009	35 618	12 036	47 241	2 348
339994	Broom, brush, & mop mfg	—	8	3	e	D	D	D	D	D	D	D	D
339999	All other miscellaneous mfg	2	29	4	813	30 805	479	906	12 048	79 674	93 205	173 119	D
	Brockton, MA PMSA												
31-33	Manufacturing	1	375	123	11 201	384 240	7 239	14 218	197 546	910 110	659 218	1 559 397	50 442
311	Food mfg	2	21	7	469	13 361	341	620	8 634	32 338	36 907	69 221	2 336
312	Beverage & tobacco product mfg	—	1	1	e	D	D	D	D	D	D	D	D
3121	Beverage mfg	—	1	1	e	D	D	D	D	D	D	D	D
31211	Soft drink & ice mfg	—	1	1	e	D	D	D	D	D	D	D	D
312111	Soft drink mfg	—	1	1	e	D	D	D	D	D	D	D	D
315	Apparel mfg	—	13	3	388	10 636	232	431	5 009	36 641	74 799	112 698	D
3152	Cut & sew apparel mfg	—	12	3	e	D	D	D	D	D	D	D	D
31523	Women's & girls' cut & sew apparel mfg	—	3	2	e	D	D	D	D	D	D	D	D
316	Leather & allied product mfg .	—	16	6	646	17 837	552	962	10 563	41 999	36 627	82 660	1 635
3162	Footwear mfg	—	3	2	e	D	D	D	D	D	D	D	D
31621	Footwear mfg	—	3	2	e	D	D	D	D	D	D	D	D
3169	Other leather & allied product mfg	—	11	3	e	D	D	D	D	D	D	D	D
31699	Other leather & allied product mfg	—	11	3	e	D	D	D	D	D	D	D	D
316999	All other leather good mfg	—	11	3	e	D	D	D	D	D	D	D	D
322	Paper mfg	1	5	3	368	10 416	332	650	6 596	32 835	21 294	52 359	1 224
3222	Converted paper product mfg	1	5	3	368	10 416	332	650	6 596	32 835	21 294	52 359	1 224
323	Printing & related support activities.....	4	51	12	1 067	31 803	765	1 418	19 437	70 401	36 162	106 778	4 068
3231	Printing & related support activities.....	4	51	12	1 067	31 803	765	1 418	19 437	70 401	36 162	106 778	4 068
32311	Printing	4	45	11	1 012	29 712	723	1 320	17 989	64 765	35 452	100 625	D
323110	Commercial lithographic printing ..	3	22	8	820	22 420	582	1 075	13 552	48 902	25 755	74 881	2 435
325	Chemical mfg	6	7	4	405	11 551	245	463	5 877	27 966	19 224	47 015	D
3254	Pharmaceutical & medicine mfg	6	3	3	335	8 899	215	397	4 362	23 769	15 671	39 037	D
32541	Pharmaceutical & medicine mfg	6	3	3	335	8 899	215	397	4 362	23 769	15 671	39 037	D
326	Plastics & rubber products mfg	3	18	8	353	8 354	260	447	4 955	19 973	16 302	36 354	1 377
3261	Plastics product mfg	3	16	8	e	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	3	11	7	278	6 296	201	328	3 527	13 604	11 453	25 188	1 101
326199	All other plastics product mfg	3	11	7	278	6 296	201	328	3 527	13 604	11 453	25 188	1 101
327	Nonmetallic mineral product mfg	2	15	3	270	9 020	194	419	6 008	18 234	13 145	31 482	963
331	Primary metal mfg	—	8	5	386	15 497	295	628	10 495	27 676	21 715	49 352	3 170
3315	Foundries	1	7	4	e	D	D	D	D	D	D	D	D
33151	Ferrous metal foundries .	—	4	4	e	D	D	D	D	D	D	D	D
331511	Iron foundries	—	4	4	e	D	D	D	D	D	D	D	D

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	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Brockton, MA PMSA—Con.												
31-33	Manufacturing—Con.												
332	Fabricated metal product mfg	-	79	19	1 528	54 842	1 070	2 077	30 590	120 772	65 960	182 268	6 135
3323	Architectural & structural metals mfg	-	18	5	275	7 988	187	373	4 932	20 006	13 532	33 578	692
33232	Ornamental & architectural metal products mfg	-	17	5	e	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	39	4	380	12 225	283	531	7 909	26 281	10 740	37 093	D
33271	Machine shops	2	33	3	303	9 338	223	402	5 859	19 452	7 814	27 249	1 500
332710	Machine shops	2	33	3	303	9 338	223	402	5 859	19 452	7 814	27 249	1 500
3329	Other fabricated metal product mfg	-	5	1	e	D	D	D	D	D	D	D	D
33291	Metal valve mfg	-	2	1	e	D	D	D	D	D	D	D	D
332911	Industrial valve mfg ...	-	1	1	e	D	D	D	D	D	D	D	D
333	Machinery mfg	4	42	13	930	36 550	568	1 149	17 230	64 279	62 096	127 219	3 712
3332	Industrial machinery mfg ..	6	12	7	537	20 700	291	604	8 927	39 870	34 258	75 531	2 503
33329	Other industrial machinery mfg	6	10	6	f	D	D	D	D	D	D	D	D
333295	Semiconductor machinery mfg	9	1	1	e	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	18	11	858	30 758	513	911	12 097	60 318	36 551	96 047	3 951
3344	Semiconductor & other electronic component mfg	1	12	9	572	18 499	420	740	9 425	36 963	22 611	59 015	3 757
33441	Semiconductor & other electronic component mfg	1	12	9	572	18 499	420	740	9 425	36 963	22 611	59 015	3 757
334418	Printed circuit assembly (electronic assembly) mfg	1	6	6	309	8 415	222	351	3 778	21 279	14 446	34 997	3 045
3345	Navigational, measuring, medical, & control instruments mfg	-	4	2	e	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	4	2	e	D	D	D	D	D	D	D	D
334513	Industrial process control instrument mfg	-	1	1	e	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	10	7	940	22 185	491	1 038	10 863	64 257	32 829	97 135	D
3351	Electric lighting equipment mfg	-	2	2	f	D	D	D	D	D	D	D	D
33512	Lighting fixture mfg	-	2	2	f	D	D	D	D	D	D	D	D
335122	Commercial/industrial/institutional electric lighting fixture mfg ...	-	1	1	e	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	1	5	4	288	8 370	202	435	4 684	26 626	18 903	45 246	D
33531	Electrical equipment mfg	1	5	4	288	8 370	202	435	4 684	26 626	18 903	45 246	D
335312	Motor & generator mfg	-	3	3	e	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	1	19	6	335	9 946	251	521	6 630	20 454	16 106	36 707	652
339	Miscellaneous mfg	-	31	10	1 559	76 229	618	1 309	24 646	213 961	87 007	292 884	12 381
3391	Medical equipment & supplies mfg	-	16	6	1 272	64 791	474	967	20 336	179 948	56 066	226 797	11 880
33911	Medical equipment & supplies mfg	-	16	6	1 272	64 791	474	967	20 336	179 948	56 066	226 797	11 880
339113	Surgical appliance & supplies mfg	-	3	2	g	D	D	D	D	D	D	D	D
3399	Other miscellaneous mfg ..	-	15	4	287	11 438	144	342	4 310	34 013	30 941	66 087	501

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Fitchburg—Leominster, MA PMSA												
31-33	Manufacturing	3	333	120	14 092	502 995	9 744	20 196	278 587	1 601 900	1 330 079	2 937 874	133 995
311	Food mfg.....	—	16	5	337	8 603	194	324	4 274	48 746	53 568	102 267	1 037
315	Apparel mfg.....	9	2	1	e	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg....	9	2	1	e	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg.....	9	1	1	e	D	D	D	D	D	D	D	D
315224	Men's & boys' cut & sew trouser, slack, & jean mfg.....	9	1	1	e	D	D	D	D	D	D	D	D
322	Paper mfg.....	—	15	9	1 273	51 191	928	2 014	28 573	131 336	140 474	268 025	16 844
3221	Pulp, paper, & paperboard mills.....	—	5	4	428	21 925	274	727	11 637	60 672	78 982	137 090	8 876
32212	Paper mills.....	—	5	4	428	21 925	274	727	11 637	60 672	78 982	137 090	8 876
322121	Paper (except newsprint) mills.....	—	5	4	428	21 925	274	727	11 637	60 672	78 982	137 090	8 876
3222	Converted paper product mfg.....	—	10	5	845	29 266	654	1 287	16 936	70 664	61 492	130 935	7 968
32221	Paperboard container mfg.....	—	8	5	f	D	D	D	D	D	D	D	D
322211	Corrugated & solid fiber box mfg.....	—	4	2	e	D	D	D	D	D	D	D	D
322212	Folding paperboard box mfg.....	—	4	3	505	14 976	394	753	9 981	41 194	28 975	68 780	4 175
323	Printing & related support activities.....	2	26	5	498	16 302	344	713	10 910	32 618	25 430	58 863	9 346
3231	Printing & related support activities.....	2	26	5	498	16 302	344	713	10 910	32 618	25 430	58 863	9 346
32311	Printing.....	2	24	5	e	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing..	—	14	4	341	11 518	235	475	8 093	22 668	18 111	41 584	D
325	Chemical mfg.....	—	24	13	1 189	44 907	677	1 335	23 666	104 350	254 630	355 712	23 258
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg.....	—	5	5	294	12 569	192	375	6 917	34 760	53 233	86 519	2 896
32521	Resin & synthetic rubber mfg.....	—	5	5	294	12 569	192	375	6 917	34 760	53 233	86 519	2 896
3259	Other chemical product mfg.....	—	14	8	862	31 112	465	925	16 002	65 750	197 085	261 078	19 561
32599	All other chemical product & preparation mfg.....	—	14	8	862	31 112	465	925	16 002	65 750	197 085	261 078	19 561
325991	Custom compounding of purchased resin...	—	12	7	f	D	D	D	D	D	D	D	D
325998	All other miscellaneous chemical product & preparation mfg.....	—	2	1	e	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg.....	1	58	29	3 038	90 640	2 554	5 774	64 966	273 673	288 098	562 094	30 714
3261	Plastics product mfg.....	1	57	29	h	D	D	D	D	D	D	D	30 714
32619	Other plastics product mfg.....	1	50	27	2 872	85 598	2 407	5 487	60 933	260 121	262 778	523 430	30 255
326199	All other plastics product mfg.....	1	49	27	h	D	D	D	D	D	D	D	D
331	Primary metal mfg.....	—	4	3	f	D	D	D	D	D	D	D	D
3314	Nonferrous metal (except aluminum) production & processing.....	—	2	2	e	D	D	D	D	D	D	D	D
33142	Copper rolling, drawing, extruding, & alloying...	—	2	2	e	D	D	D	D	D	D	D	D
331421	Copper rolling, drawing, & extruding..	—	1	1	e	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg.....	1	54	10	1 617	53 844	1 193	2 348	31 276	108 610	76 647	186 453	6 193
3322	Cutlery & handtool mfg.....	—	3	1	e	D	D	D	D	D	D	D	D
33221	Cutlery & handtool mfg... ..	—	3	1	e	D	D	D	D	D	D	D	D
332213	Saw blade & handsaw mfg.....	—	1	1	e	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg.....	1	9	3	424	17 732	265	584	9 467	30 349	22 122	54 750	D
33231	Plate work & fabricated structural product mfg..	—	4	3	370	15 902	226	505	8 312	26 191	19 628	48 109	D
332313	Plate work mfg.....	—	3	3	e	D	D	D	D	D	D	D	D
3325	Hardware mfg.....	—	2	1	e	D	D	D	D	D	D	D	D
33251	Hardware mfg.....	—	2	1	e	D	D	D	D	D	D	D	D
332510	Hardware mfg.....	—	2	1	e	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
31-33	Fitchburg—Leominster, MA PMSA—Con.												
	Manufacturing—Con.												
333	Machinery mfg	—	39	10	1 265	58 134	808	1 601	32 353	134 636	58 489	190 731	4 294
3335	Metalworking machinery mfg	3	28	6	400	17 145	317	664	12 736	27 193	11 029	37 828	1 609
33351	Metalworking machinery mfg	3	28	6	400	17 145	317	664	12 736	27 193	11 029	37 828	1 609
333511	Industrial mold mfg ...	3	17	4	275	12 607	221	476	9 609	19 724	6 803	26 151	1 127
3336	Engine, turbine, & power transmission equipment mfg	—	2	2	f	D	D	D	D	D	D	D	D
33361	Engine, turbine, & power transmission equipment mfg	—	2	2	f	D	D	D	D	D	D	D	D
333611	Turbine & turbine generator set unit mfg	—	2	2	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	9	6	3	g	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	9	1	1	g	D	D	D	D	D	D	D	D
33429	Other communications equipment mfg	9	1	1	g	D	D	D	D	D	D	D	D
334290	Other communications equipment mfg	9	1	1	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	9	5	3	396	19 990	308	610	12 931	53 664	88 586	144 169	D
3359	Other electrical equipment & component mfg	9	5	3	396	19 990	308	610	12 931	53 664	88 586	144 169	D
33592	Communication & energy wire & cable mfg	9	3	3	e	D	D	D	D	D	D	D	D
335929	Other communication & energy wire mfg ...	9	2	2	e	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	2	33	14	931	26 348	693	1 326	18 129	56 100	35 222	91 186	1 966
3371	Household & institutional furniture & kitchen cabinet mfg	2	29	12	862	23 996	651	1 242	16 817	46 208	31 859	77 914	D
33712	Household & institutional furniture mfg	2	25	9	789	22 246	599	1 134	15 828	42 868	29 484	72 144	1 679
337122	Nonupholstered wood household furniture mfg	—	15	6	575	16 218	442	871	11 707	33 736	22 706	55 912	1 069
339	Miscellaneous mfg	2	20	4	324	8 746	246	431	4 973	18 711	15 826	34 720	657
	Lawrence, MA—NH PMSA												
31-33	Manufacturing	—	615	222	32 584	1 302 783	20 926	41 446	670 568	6 674 863	4 091 443	10 755 677	499 323
	Lawrence, MA—NH PMSA (MA Part)	—	389	160	25 972	1 082 081	16 696	33 198	554 503	4 316 177	3 054 611	7 364 993	465 556
	Lawrence, MA—NH PMSA (NH Part)	—	226	62	6 612	220 702	4 230	8 248	116 065	2 358 686	1 036 832	3 390 684	33 767
311	Food mfg	3	46	10	f	D	D	D	D	D	D	D	9 075
3118	Bakeries & tortilla mfg	1	29	5	517	12 383	306	561	5 554	25 639	26 970	52 405	1 233
31181	Bread & bakery product mfg	3	27	4	e	D	D	D	D	D	D	D	D
311812	Commercial bakeries .	2	12	3	271	6 184	199	415	4 006	12 519	8 718	21 237	746
313	Textile mills	—	11	5	g	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	—	7	4	g	D	D	D	D	D	D	D	D
31331	Textile & fabric finishing mills	—	4	2	g	D	D	D	D	D	D	D	D
313312	Textile & fabric finishing mills	—	2	2	g	D	D	D	D	D	D	D	D
314	Textile product mills	2	19	4	f	D	D	D	D	D	D	D	D
3149	Other textile product mills ..	1	12	2	357	8 560	295	583	6 070	9 436	24 115	33 552	D
31499	All other textile product mills	1	7	2	337	7 882	282	559	5 776	8 607	18 262	26 866	D
314999	All other miscellaneous textile product mills ..	1	7	2	337	7 882	282	559	5 776	8 607	18 262	26 866	D

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	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.													
	Lawrence, MA—NH PMSA—Con.													
31-33	Manufacturing—Con.													
315	Apparel mfg	3	9	5	f	D	D	D	D	D	D	D	D	
3152	Cut & sew apparel mfg ...	3	6	4	f	D	D	D	D	D	D	D	D	
31522	Men's & boys' cut & sew apparel mfg.....	9	1	1	e	D	D	D	D	D	D	D	D	
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg.....	9	1	1	e	D	D	D	D	D	D	D	D	
316	Leather & allied product mfg .	—	12	2	f	D	D	D	D	D	D	D	D	
3162	Footwear mfg	—	4	2	f	D	D	D	D	D	D	D	D	
31621	Footwear mfg	—	4	2	f	D	D	D	D	D	D	D	D	
316211	Rubber & plastics footwear mfg.....	—	2	1	e	D	D	D	D	D	D	D	D	
316214	Women's footwear (except athletic) mfg .	—	1	1	e	D	D	D	D	D	D	D	D	
321	Wood product mfg	1	25	11	e	D	D	D	D	D	D	D	D	
3219	Other wood product mfg ...	2	23	9	e	D	D	D	D	D	D	D	D	
322	Paper mfg	—	17	13		1 086	43 169	855	1 821	28 711	94 759	122 192	216 993	11 665
3221	Pulp, paper, & paperboard mills	—	4	3	e	D	D	D	D	D	D	D	D	
32213	Paperboard mills	—	2	2	e	D	D	D	D	D	D	D	D	
322130	Paperboard mills	—	2	2	e	D	D	D	D	D	D	D	D	
3222	Converted paper product mfg	1	13	10	f	D	D	D	D	D	D	D	D	
32221	Paperboard container mfg	1	9	7		452	12 339	375	747	8 934	18 784	32 265	50 297	1 515
323	Printing & related support activities.....	3	53	13		865	28 880	650	1 241	19 050	59 056	26 371	85 128	3 931
3231	Printing & related support activities.....	3	53	13		865	28 880	650	1 241	19 050	59 056	26 371	85 128	3 931
32311	Printing	3	48	11		712	22 568	537	1 017	14 820	48 326	24 109	72 162	2 779
323110	Commercial lithographic printing ..	2	21	7		415	13 937	322	627	9 781	28 689	13 669	42 066	2 014
325	Chemical mfg	—	22	7	g	D	D	D	D	D	D	D	D	D
3254	Pharmaceutical & medicine mfg	—	7	4	f	D	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	—	7	4	f	D	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	—	6	3	f	D	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, & toilet preparation mfg ..	—	4	1	f	D	D	D	D	D	D	D	D	D
32562	Toilet preparation mfg ...	—	2	1	f	D	D	D	D	D	D	D	D	D
325620	Toilet preparation mfg ..	—	2	1	f	D	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	4	29	17		2 041	75 371	1 342	2 754	41 651	160 780	155 162	310 646	16 920
3261	Plastics product mfg	4	27	17	g	D	D	D	D	D	D	D	D	D
32611	Unsupported plastics film, sheet, & bag mfg ..	4	7	7	g	D	D	D	D	D	D	D	D	12 110
326113	Unsupported plastics film & sheet (except packaging) mfg	4	5	5		1 141	43 200	735	1 539	26 439	92 505	102 353	189 173	D
32619	Other plastics product mfg	3	14	6		358	9 931	234	444	5 439	17 351	12 292	30 020	2 022
326199	All other plastics product mfg.....	3	14	6		358	9 931	234	444	5 439	17 351	12 292	30 020	2 022
332	Fabricated metal product mfg	1	129	33		2 531	88 260	1 797	3 576	52 840	191 148	180 630	373 231	15 611
3323	Architectural & structural metals mfg	4	20	5		288	9 667	194	429	5 335	17 325	16 305	33 829	1 388
3324	Boiler, tank, & shipping container mfg	—	5	2	e	D	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	64	12		927	31 263	694	1 305	19 237	58 490	26 773	84 921	7 507
33271	Machine shops	1	55	9		696	21 574	538	959	13 992	36 616	17 009	53 327	4 150
332710	Machine shops	1	55	9		696	21 574	538	959	13 992	36 616	17 009	53 327	4 150
3328	Coating, engraving, heat treating, & allied activities .	1	18	8		524	15 044	372	790	9 234	36 602	14 562	51 307	2 758
33281	Coating, engraving, heat treating, & allied activities.....	1	18	8		524	15 044	372	790	9 234	36 602	14 562	51 307	2 758
332813	Electroplating, plating, polishing, anodizing, & coloring	2	9	5		354	8 826	250	546	5 141	16 431	5 332	21 767	1 161

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

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	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Lawrence, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
332	Fabricated metal product mfg—Con.												
3329	Other fabricated metal product mfg.....	-	11	4	342	13 945	218	408	6 421	28 770	35 711	64 710	1 192
333	Machinery mfg.....	1	57	24	1 769	69 984	1 062	2 088	34 794	163 574	120 316	283 481	9 537
3332	Industrial machinery mfg ..	-	19	8	519	17 947	313	620	9 357	39 881	32 280	72 640	3 119
33329	Other industrial machinery mfg.....	-	16	8	502	17 485	301	601	9 120	38 754	31 709	70 957	D
3333	Commercial & service industry machinery mfg ..	-	13	5	336	11 858	211	445	6 358	25 964	16 368	42 579	1 778
33331	Commercial & service industry machinery mfg.....	-	13	5	336	11 858	211	445	6 358	25 964	16 368	42 579	1 778
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg.....	4	7	5	336	13 506	243	495	8 683	27 705	31 659	60 958	1 905
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg ..	4	7	5	336	13 506	243	495	8 683	27 705	31 659	60 958	1 905
3339	Other general-purpose machinery mfg.....	-	8	4	435	21 350	208	329	7 388	59 649	35 148	92 111	D
33391	Pump & compressor mfg.....	-	2	2	e	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg.....	-	101	52	14 121	645 606	8 683	16 937	314 492	4 575 434	2 505 688	7 114 531	142 221
3341	Computer & peripheral equipment mfg.....	-	9	3	g	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg.....	-	9	3	g	D	D	D	D	D	D	D	D
334111	Electronic computer mfg.....	-	5	1	g	D	D	D	D	D	D	D	D
3342	Communications equipment mfg.....	-	13	7	h	D	D	D	D	D	D	D	D
33421	Telephone apparatus mfg.....	-	3	2	h	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg.....	-	3	2	h	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg.....	6	8	5	302	11 391	202	379	6 380	24 909	15 041	40 624	D
334220	Radio & TV broadcasting & wireless communications equipment mfg.....	6	8	5	302	11 391	202	379	6 380	24 909	15 041	40 624	D
3344	Semiconductor & other electronic component mfg.....	1	55	30	4 518	152 345	3 001	6 010	79 820	371 207	303 949	679 314	46 065
33441	Semiconductor & other electronic component mfg.....	1	55	30	4 518	152 345	3 001	6 010	79 820	371 207	303 949	679 314	46 065
334412	Bare printed circuit board mfg.....	-	19	12	2 221	71 588	1 549	3 146	41 484	188 795	148 994	339 346	18 645
334413	Semiconductor & related device mfg...	8	11	6	451	17 825	289	555	7 705	45 539	21 761	67 470	11 675
334418	Printed circuit assembly (electronic assembly) mfg.....	-	5	2	e	D	D	D	D	D	D	D	D
334419	Other electronic component mfg.....	-	12	6	1 378	48 556	861	1 705	23 135	91 879	84 202	178 892	D
3345	Navigational, measuring, medical, & control instruments mfg.....	-	21	11	3 624	230 042	1 505	3 667	62 313	655 690	483 869	1 152 464	28 730
33451	Navigational, measuring, medical, & control instruments mfg.....	-	21	11	3 624	230 042	1 505	3 667	62 313	655 690	483 869	1 152 464	28 730
334510	Electromedical & electrotherapeutic apparatus mfg.....	-	2	2	h	D	D	D	D	D	D	D	D
334513	Industrial process control instrument mfg.....	-	3	2	e	D	D	D	D	D	D	D	D

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	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Lawrence, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
335	Electrical equipment, appliance, & component mfg	-	13	6	1 527	61 923	501	781	12 980	173 763	117 922	293 315	D
3353	Electrical equipment mfg ..	-	6	3	g	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	-	6	3	g	D	D	D	D	D	D	D	D
335314	Relay & industrial control mfg	-	3	3	g	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	-	35	12	1 373	44 636	734	1 425	17 775	122 270	92 510	228 945	5 197
3391	Medical equipment & supplies mfg	-	15	4	578	16 718	315	585	6 699	30 571	32 653	74 885	1 880
33911	Medical equipment & supplies mfg	-	15	4	578	16 718	315	585	6 699	30 571	32 653	74 885	1 880
339112	Surgical & medical instrument mfg	-	5	3	495	14 443	252	496	5 552	23 854	27 961	63 352	D
3399	Other miscellaneous mfg ..	-	20	8	795	27 918	419	840	11 076	91 699	59 857	154 060	3 317
33999	All other miscellaneous mfg	-	10	6	634	23 648	320	657	9 424	80 974	42 810	126 525	2 584
339991	Gasket, packing, & sealing device mfg...	-	4	4	f	D	D	D	D	D	D	D	D
	Lowell, MA—NH PMSA												
31-33	Manufacturing	1	460	176	23 531	977 469	11 934	23 747	365 205	3 014 245	2 005 755	5 008 323	243 424
	Lowell, MA—NH PMSA (MA Part)	1	443	175	23 270	970 625	11 710	23 380	360 122	3 000 011	1 990 314	4 979 117	D
	Lowell, MA—NH PMSA (NH Part)	1	17	1	261	6 844	224	367	5 083	14 234	15 441	29 206	D
311	Food mfg	-	20	6	609	19 888	347	668	6 805	70 067	67 815	144 309	4 761
312	Beverage & tobacco product mfg	-	2	1	e	D	D	D	D	D	D	D	D
3121	Beverage mfg	-	2	1	e	D	D	D	D	D	D	D	D
31211	Soft drink & ice mfg	-	1	1	e	D	D	D	D	D	D	D	D
312111	Soft drink mfg	-	1	1	e	D	D	D	D	D	D	D	D
313	Textile mills	-	12	7	661	18 645	563	1 154	14 301	48 843	72 881	121 986	5 684
3131	Fiber, yarn, & thread mills ..	-	3	3	e	D	D	D	D	D	D	D	D
31311	Fiber, yarn, & thread mills	-	3	3	e	D	D	D	D	D	D	D	D
313111	Yarn spinning mills	-	3	3	e	D	D	D	D	D	D	D	D
322	Paper mfg	-	10	9	984	36 141	718	1 589	25 781	91 859	113 747	206 254	4 759
3221	Pulp, paper, & paperboard mills	-	2	2	e	D	D	D	D	D	D	D	D
32212	Paper mills	-	2	2	e	D	D	D	D	D	D	D	D
322121	Paper (except newsprint) mills	-	2	2	e	D	D	D	D	D	D	D	D
3222	Converted paper product mfg	-	8	7	f	D	D	D	D	D	D	D	D
32221	Paperboard container mfg	-	5	5	423	13 902	323	709	10 222	20 824	28 955	50 148	648
32222	Paper bag & coated & treated paper mfg	-	3	2	e	D	D	D	D	D	D	D	D
323	Printing & related support activities.....	3	34	6	554	19 862	387	754	11 195	36 190	23 003	59 454	1 847
3231	Printing & related support activities.....	3	34	6	554	19 862	387	754	11 195	36 190	23 003	59 454	1 847
32311	Printing	4	31	5	f	D	D	D	D	D	D	D	D
325	Chemical mfg	-	14	6	1 334	68 505	572	1 199	22 258	342 225	71 108	409 272	18 170
3254	Pharmaceutical & medicine mfg	-	3	2	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	-	3	2	f	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	-	2	2	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	6	15	6	488	14 014	363	793	8 959	40 351	30 485	70 323	2 858
3261	Plastics product mfg	6	13	6	e	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	7	11	5	437	12 329	331	723	8 020	35 870	24 654	60 069	2 532
326199	All other plastics product mfg.....	7	11	5	437	12 329	331	723	8 020	35 870	24 654	60 069	2 532
327	Nonmetallic mineral product mfg	5	12	5	270	9 910	223	410	6 212	26 694	14 907	40 294	1 713

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Lowell, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
331	Primary metal mfg	—	8	5	f	D	D	D	D	D	D	D	7 242
3315	Foundries	—	2	1	e	D	D	D	D	D	D	D	D
33152	Nonferrous metal foundries	—	1	1	e	D	D	D	D	D	D	D	D
331521	Aluminum die-casting foundries	—	1	1	e	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	2	107	25	1 597	57 986	1 224	2 344	36 069	106 870	56 391	163 424	9 405
3323	Architectural & structural metals mfg	1	16	5	e	D	D	D	D	D	D	D	1 460
33232	Ornamental & architectural metal products mfg	1	14	4	e	D	D	D	D	D	D	D	D
332322	Sheet metal work mfg .	1	12	4	e	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	2	68	13	f	D	D	D	D	D	D	D	D
33271	Machine shops	2	60	10	665	24 684	515	953	17 340	42 339	18 854	61 315	5 141
332710	Machine shops	2	60	10	665	24 684	515	953	17 340	42 339	18 854	61 315	5 141
333	Machinery mfg	5	47	20	2 614	140 347	1 395	3 044	59 200	274 406	259 117	536 635	20 762
3332	Industrial machinery mfg ..	6	15	7	1 685	99 614	872	1 958	40 247	211 995	190 954	402 046	13 826
33329	Other industrial machinery mfg	6	15	7	1 685	99 614	872	1 958	40 247	211 995	190 954	402 046	13 826
333295	Semiconductor machinery mfg	8	4	4	1 366	83 719	741	1 667	34 943	167 839	160 395	327 606	12 000
3333	Commercial & service industry machinery mfg ..	3	13	7	540	23 650	313	612	10 886	48 334	23 569	71 522	3 841
33331	Commercial & service industry machinery mfg	3	13	7	540	23 650	313	612	10 886	48 334	23 569	71 522	3 841
333314	Optical instrument & lens mfg	—	7	3	280	10 571	181	357	6 104	23 010	7 045	29 820	D
3339	Other general-purpose machinery mfg	—	9	3	257	11 925	115	288	5 154	8 420	39 492	51 170	2 557
334	Computer & electronic product mfg	—	108	59	10 795	456 955	4 053	7 855	120 565	1 627 616	1 030 371	2 640 857	152 343
3341	Computer & peripheral equipment mfg	—	10	4	e	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg	—	10	4	e	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	—	19	9	5 067	216 768	1 510	2 763	52 389	836 145	380 769	1 192 357	D
33421	Telephone apparatus mfg	—	5	4	3 680	161 167	932	1 659	31 754	701 999	317 804	1 003 311	67 443
334210	Telephone apparatus mfg	—	5	4	3 680	161 167	932	1 659	31 754	701 999	317 804	1 003 311	67 443
33422	Radio & TV broadcasting & wireless communications equipment mfg	—	9	5	g	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	—	9	5	g	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	1	49	27	3 286	126 871	1 635	3 160	37 896	328 076	302 360	647 074	31 739
33441	Semiconductor & other electronic component mfg	1	49	27	3 286	126 871	1 635	3 160	37 896	328 076	302 360	647 074	31 739
334412	Bare printed circuit board mfg	5	13	6	565	13 536	450	966	8 523	26 698	13 105	39 758	1 862
334413	Semiconductor & related device mfg ...	1	9	7	1 113	42 949	511	772	12 081	163 507	86 497	263 159	17 979
334418	Printed circuit assembly (electronic assembly) mfg	—	12	10	1 288	61 205	428	999	12 290	122 001	184 581	309 728	10 703

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	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Lowell, MA—NH PMSA—Con.												
31-33	Manufacturing—Con.												
334	Computer & electronic product mfg—Con.												
3345	Navigational, measuring, medical, & control instruments mfg	2	29	19	g	D	D	D	D	D	D	D	22 590
33451	Navigational, measuring, medical, & control instruments mfg	2	29	19	g	D	D	D	D	D	D	D	22 590
334511	Search, detection, navigation, & guidance instrument mfg	5	3	2	e	D	D	D	D	D	D	D	D
334513	Industrial process control instrument mfg	1	3	3	308	14 057	66	136	1 966	60 947	17 816	75 417	D
334515	Electricity measuring & testing instrument mfg	3	5	5	e	D	D	D	D	D	D	D	5 479
334516	Analytical laboratory instrument mfg	—	10	5	478	18 431	188	369	5 849	33 632	17 377	52 949	2 290
335	Electrical equipment, appliance, & component mfg	2	12	7	542	23 801	236	483	7 167	63 557	40 451	103 489	4 678
3359	Other electrical equipment & component mfg	3	8	5	e	D	D	D	D	D	D	D	D
33599	All other electrical equipment & component mfg	4	5	3	279	12 080	100	226	3 195	34 054	24 535	57 684	3 354
335999	All other miscellaneous electrical equipment & component mfg	4	5	3	279	12 080	100	226	3 195	34 054	24 535	57 684	3 354
336	Transportation equipment mfg	5	7	3	322	10 425	257	482	7 034	9 882	14 562	24 799	1 432
3363	Motor vehicle parts mfg ...	5	7	3	322	10 425	257	482	7 034	9 882	14 562	24 799	1 432
337	Furniture & related product mfg	1	10	4	359	9 319	268	477	4 767	19 258	26 519	46 371	1 436
339	Miscellaneous mfg	—	27	5	1 141	51 569	525	799	14 180	83 509	40 024	124 184	3 736
3391	Medical equipment & supplies mfg	—	13	5	1 092	50 049	491	719	13 160	82 478	33 495	116 623	3 120
33911	Medical equipment & supplies mfg	—	13	5	1 092	50 049	491	719	13 160	82 478	33 495	116 623	3 120
339112	Surgical & medical instrument mfg	—	6	2	f	D	D	D	D	D	D	D	D
	New Bedford, MA PMSA												
31-33	Manufacturing	1	241	84	12 622	373 831	9 793	19 583	248 008	997 383	801 612	1 826 808	81 508
311	Food mfg	2	38	8	1 276	26 669	706	1 064	10 435	90 063	96 001	186 125	4 027
3117	Seafood product preparation & packaging..	2	15	5	502	12 026	377	604	5 750	57 319	78 185	135 501	D
31171	Seafood product preparation & packaging	2	15	5	502	12 026	377	604	5 750	57 319	78 185	135 501	D
311712	Fresh & frozen seafood processing ..	2	13	5	e	D	D	D	D	D	D	D	D
3118	Bakeries & tortilla mfg	—	16	2	f	D	D	D	D	D	D	D	707
31181	Bread & bakery product mfg	—	16	2	f	D	D	D	D	D	D	D	707
311812	Commercial bakeries ..	—	5	1	f	D	D	D	D	D	D	D	573
313	Textile mills	2	13	8	639	18 081	512	1 106	11 372	40 956	29 392	70 124	D
3132	Fabric mills	1	7	4	e	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	2	4	3	324	9 758	261	548	6 145	20 287	12 092	32 673	D
31331	Textile & fabric finishing mills	1	3	2	e	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills	—	2	2	e	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	New Bedford, MA PMSA—Con.												
31-33	Manufacturing—Con.												
315	Apparel mfg	6	22	16	2 353	46 899	2 101	4 338	38 221	83 083	84 170	166 046	1 507
3152	Cut & sew apparel mfg	6	21	16	g	D	D	D	D	D	D	D	1 507
31521	Cut & sew apparel contractors	3	8	6	553	9 457	514	1 025	7 821	13 178	1 663	14 777	226
315212	Women's, girls', & infants' cut & sew apparel contractors ..	3	8	6	553	9 457	514	1 025	7 821	13 178	1 663	14 777	226
31522	Men's & boys' cut & sew apparel mfg	7	4	4	1 277	30 921	1 132	2 575	24 933	61 997	61 863	123 807	1 195
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	7	3	3	g	D	D	D	D	D	D	D	D
31523	Women's & girls' cut & sew apparel mfg	—	8	5	f	D	D	D	D	D	D	D	D
315234	Women's & girls' cut & sew suit, coat, skirt mfg	—	4	3	298	3 470	265	399	3 086	3 330	16 697	18 956	D
323	Printing & related support activities	—	15	5	281	8 371	221	417	5 268	16 625	8 313	24 902	932
3231	Printing & related support activities	—	15	5	281	8 371	221	417	5 268	16 625	8 313	24 902	932
32311	Printing	—	13	5	e	D	D	D	D	D	D	D	D
325	Chemical mfg	—	5	2	f	D	D	D	D	D	D	D	D
3259	Other chemical product mfg	—	3	2	f	D	D	D	D	D	D	D	D
32599	All other chemical product & preparation mfg	—	3	2	f	D	D	D	D	D	D	D	D
325992	Photographic film, paper, plate, & chemical mfg	—	2	2	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	—	10	4	1 245	33 480	1 040	1 831	22 480	83 644	40 314	121 222	1 824
3262	Rubber product mfg	—	3	1	g	D	D	D	D	D	D	D	D
32629	Other rubber product mfg	—	3	1	g	D	D	D	D	D	D	D	D
326291	Rubber product mfg for mechanical use	—	2	1	g	D	D	D	D	D	D	D	D
331	Primary metal mfg	—	3	3	530	22 531	323	675	12 460	75 712	98 930	167 167	1 870
3312	Steel product mfg from purchased steel	—	1	1	e	D	D	D	D	D	D	D	D
33122	Rolling & drawing of purchased steel	—	1	1	e	D	D	D	D	D	D	D	D
331221	Cold-rolled steel shape mfg	—	1	1	e	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	—	27	6	640	19 153	516	999	13 834	42 472	30 609	72 947	2 434
333	Machinery mfg	1	18	6	441	13 943	282	495	7 331	13 378	35 156	49 479	2 572
334	Computer & electronic product mfg	—	8	5	674	21 865	494	898	12 784	50 376	25 367	72 396	4 220
3344	Semiconductor & other electronic component mfg	—	2	2	e	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	—	2	2	e	D	D	D	D	D	D	D	D
334419	Other electronic component mfg	—	1	1	e	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	1	5	3	e	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	1	5	3	e	D	D	D	D	D	D	D	D

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

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	New Bedford, MA PMSA—Con.												
31-33	Manufacturing—Con.												
335	Electrical equipment, appliance, & component mfg	-	6	3	1 333	35 681	1 021	2 238	21 655	93 392	126 630	222 072	D
3359	Other electrical equipment & component mfg	-	2	2	g	D	D	D	D	D	D	D	D
33592	Communication & energy wire & cable mfg	-	1	1	f	D	D	D	D	D	D	D	D
335929	Other communication & energy wire mfg ...	-	1	1	f	D	D	D	D	D	D	D	D
33599	All other electrical equipment & component mfg	-	1	1	f	D	D	D	D	D	D	D	D
335999	All other miscellaneous electrical equipment & component mfg	-	1	1	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	-	14	6	1 732	69 214	1 494	3 288	57 265	306 264	92 320	421 991	D
3391	Medical equipment & supplies mfg	-	7	3	e	D	D	D	D	D	D	D	D
33911	Medical equipment & supplies mfg	-	7	3	e	D	D	D	D	D	D	D	D
339112	Surgical & medical instrument mfg	-	2	2	e	D	D	D	D	D	D	D	D
3399	Other miscellaneous mfg ..	-	7	3	g	D	D	D	D	D	D	D	D
33992	Sporting & athletic goods mfg	-	1	1	g	D	D	D	D	D	D	D	D
339920	Sporting & athletic goods mfg	-	1	1	g	D	D	D	D	D	D	D	D
	Worcester, MA—CT PMSA												
31-33	Manufacturing	1	857	337	39 051	1 535 603	25 057	50 712	739 514	3 727 749	2 859 933	6 584 341	300 448
	Worcester, MA—CT PMSA (CT Part)	-	19	7	547	20 357	385	844	10 270	43 926	28 713	71 244	2 650
	Worcester, MA—CT PMSA (MA Part)	1	838	330	38 504	1 515 246	24 672	49 868	729 244	3 683 823	2 831 220	6 513 097	297 798
311	Food mfg	1	42	15	1 144	30 663	760	1 453	18 638	139 064	110 143	249 075	6 542
3118	Bakeries & tortilla mfg	-	29	10	582	13 870	369	681	8 349	97 184	43 826	141 135	D
31181	Bread & bakery product mfg	-	28	10	f	D	D	D	D	D	D	D	D
311812	Commercial bakeries ..	-	11	7	e	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	-	4	1	f	D	D	D	D	D	D	D	D
3121	Beverage mfg	-	4	1	f	D	D	D	D	D	D	D	D
31211	Soft drink & ice mfg	-	3	1	f	D	D	D	D	D	D	D	D
312111	Soft drink mfg	-	3	1	f	D	D	D	D	D	D	D	D
313	Textile mills	3	17	10	1 360	38 756	989	2 131	27 235	126 992	105 243	237 123	6 007
3132	Fabric mills	9	4	3	561	12 351	357	830	8 879	19 397	20 095	44 016	2 601
31321	Broadwoven fabric mills ..	9	3	2	f	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	9	3	2	f	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	1	8	5	f	D	D	D	D	D	D	D	3 014
31331	Textile & fabric finishing mills	1	4	2	f	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills	1	4	2	f	D	D	D	D	D	D	D	D
321	Wood product mfg	2	24	8	448	13 350	307	542	6 897	25 552	22 859	48 388	1 530
3219	Other wood product mfg ...	2	20	7	415	12 456	280	491	6 187	23 559	20 867	44 402	1 357
322	Paper mfg	-	19	16	2 205	85 370	1 529	3 509	48 803	194 392	282 982	478 551	11 194
3222	Converted paper product mfg	-	19	16	2 205	85 370	1 529	3 509	48 803	194 392	282 982	478 551	11 194
32221	Paperboard container mfg	-	7	6	473	17 702	362	809	10 257	38 807	60 286	99 131	2 736
322211	Corrugated & solid fiber box mfg	-	7	6	473	17 702	362	809	10 257	38 807	60 286	99 131	2 736
32222	Paper bag & coated & treated paper mfg	-	3	2	g	D	D	D	D	D	D	D	D
322222	Coated & laminated paper mfg	-	3	2	g	D	D	D	D	D	D	D	D
32223	Stationery product mfg ...	2	5	5	576	20 576	413	909	14 332	47 689	49 538	97 161	1 975
322232	Envelope mfg	2	5	5	576	20 576	413	909	14 332	47 689	49 538	97 161	1 975

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Worcester, MA—CT PMSA—Con.												
31-33	Manufacturing—Con.												
323	Printing & related support activities.....	1	83	16	1 362	40 940	977	1 731	26 019	68 931	39 226	108 100	4 678
3231	Printing & related support activities.....	1	83	16	1 362	40 940	977	1 731	26 019	68 931	39 226	108 100	4 678
32311	Printing.....	1	69	13	1 101	34 073	788	1 380	21 426	57 746	36 317	93 945	3 780
323110	Commercial lithographic printing ..	-	37	9	788	23 394	589	1 014	15 733	38 363	25 915	64 419	2 829
32312	Support activities for printing.....	-	14	3	261	6 867	189	351	4 593	11 185	2 909	14 155	898
325	Chemical mfg.....	1	26	13	2 362	126 708	1 019	2 035	32 379	460 163	277 618	741 405	41 173
3254	Pharmaceutical & medicine mfg.....	-	5	3	g	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg.....	-	5	3	g	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg.....	-	3	1	g	D	D	D	D	D	D	D	D
3259	Other chemical product mfg.....	4	14	8	f	D	D	D	D	D	D	D	D
32599	All other chemical product & preparation mfg.....	4	13	8	550	20 643	406	780	10 712	39 353	78 171	118 373	D
325991	Custom compounding of purchased resin...	4	10	8	f	D	D	D	D	D	D	D	3 506
326	Plastics & rubber products mfg.....	1	58	32	3 051	120 581	2 306	4 693	68 698	253 626	172 492	424 547	19 108
3261	Plastics product mfg.....	1	53	30	h	D	D	D	D	D	D	D	D
32611	Unsupported plastics film, sheet, & bag mfg..	-	4	3	266	11 203	201	469	6 247	33 321	35 137	68 065	2 176
32619	Other plastics product mfg.....	2	35	22	2 097	84 621	1 589	3 118	47 101	152 272	84 074	236 453	12 709
326199	All other plastics product mfg.....	2	34	22	g	D	D	D	D	D	D	D	D
3262	Rubber product mfg.....	-	5	2	e	D	D	D	D	D	D	D	D
32629	Other rubber product mfg.....	-	5	2	e	D	D	D	D	D	D	D	D
326299	All other rubber product mfg.....	-	3	1	e	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg.....	-	30	16	3 875	173 034	2 328	4 786	72 500	354 032	223 247	576 227	57 969
3271	Clay product & refractory mfg.....	-	2	2	e	D	D	D	D	D	D	D	D
32712	Clay building material & refractories mfg.....	-	1	1	e	D	D	D	D	D	D	D	D
327125	Nonclay refractory mfg.....	-	1	1	e	D	D	D	D	D	D	D	D
3272	Glass & glass product mfg.....	-	7	4	552	19 363	322	683	9 000	44 016	30 883	72 911	D
32721	Glass & glass product mfg.....	-	7	4	552	19 363	322	683	9 000	44 016	30 883	72 911	D
327215	Glass product mfg made of purchased glass.....	-	5	4	f	D	D	D	D	D	D	D	D
3279	Other nonmetallic mineral product mfg.....	-	12	8	h	D	D	D	D	D	D	D	D
32791	Abrasive product mfg.....	-	8	7	2 754	131 131	1 651	3 356	51 646	246 199	152 110	400 110	D
327910	Abrasive product mfg.....	-	8	7	2 754	131 131	1 651	3 356	51 646	246 199	152 110	400 110	D
331	Primary metal mfg.....	1	15	7	550	19 512	410	881	13 106	40 004	48 569	87 663	4 259
3312	Steel product mfg from purchased steel.....	1	8	4	257	9 175	192	414	6 431	21 875	33 560	55 327	2 084
33122	Rolling & drawing of purchased steel.....	1	8	4	257	9 175	192	414	6 431	21 875	33 560	55 327	2 084
331222	Steel wire drawing.....	1	8	4	257	9 175	192	414	6 431	21 875	33 560	55 327	2 084
332	Fabricated metal product mfg.....	1	205	74	7 254	271 560	5 331	11 104	159 692	572 796	379 319	952 849	34 829
3321	Forging & stamping.....	6	10	6	1 559	71 136	1 338	2 889	42 645	119 585	87 459	201 293	9 798
33211	Forging & stamping.....	6	10	6	1 559	71 136	1 338	2 889	42 645	119 585	87 459	201 293	9 798
332111	Iron & steel forging...	8	2	2	g	D	D	D	D	D	D	D	D
332117	Powder metallurgy part mfg.....	-	1	1	e	D	D	D	D	D	D	D	D
3322	Cutlery & handtool mfg.....	-	9	6	740	23 110	492	1 053	11 874	67 028	28 854	95 523	D
33221	Cutlery & handtool mfg.....	-	9	6	740	23 110	492	1 053	11 874	67 028	28 854	95 523	D
332211	Cutlery & flatware (except precious) mfg.....	-	1	1	e	D	D	D	D	D	D	D	D
332212	Hand & edge tool mfg.....	-	7	5	e	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg.....	2	23	7	402	13 626	300	607	9 134	23 806	20 898	44 651	1 334

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Worcester, MA—CT PMSA—Con.												
31-33	Manufacturing—Con.												
332	Fabricated metal product mfg—Con.												
3326	Spring & wire product mfg .	—	16	10	886	23 023	594	1 170	14 278	56 424	58 405	114 743	D
33261	Spring & wire product mfg	—	16	10	886	23 023	594	1 170	14 278	56 424	58 405	114 743	D
332612	Spring (light gauge) mfg	—	4	3	e	D	D	D	D	D	D	D	D
332618	Other fabricated wire product mfg	1	12	7	f	D	D	D	D	D	D	D	3 854
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	93	21	1 356	50 825	1 012	2 137	32 929	97 453	37 653	135 250	4 793
33271	Machine shops	1	81	14	1 034	39 667	766	1 632	25 526	77 067	25 456	102 556	3 616
332710	Machine shops	1	81	14	1 034	39 667	766	1 632	25 526	77 067	25 456	102 556	3 616
33272	Turned product & screw, nut, & bolt mfg	—	12	7	322	11 158	246	505	7 403	20 386	12 197	32 694	1 177
3328	Coating, engraving, heat treating, & allied activities .	—	26	9	477	15 065	387	795	9 825	32 107	9 555	41 882	2 652
33281	Coating, engraving, heat treating, & allied activities	—	26	9	477	15 065	387	795	9 825	32 107	9 555	41 882	2 652
3329	Other fabricated metal product mfg	—	21	10	1 553	65 649	998	2 118	34 598	158 603	126 225	290 771	7 770
33291	Metal valve mfg	—	9	5	1 102	48 455	681	1 404	24 490	117 722	99 327	222 867	5 291
332911	Industrial valve mfg	—	6	4	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg	—	12	5	451	17 194	317	714	10 108	40 881	26 898	67 904	2 479
332999	All other miscellaneous fabricated metal product mfg	—	7	3	294	10 924	198	410	6 223	28 853	18 902	47 901	1 659
333	Machinery mfg	3	117	49	4 628	194 380	2 794	5 716	95 090	417 324	287 531	698 313	23 756
3331	Agriculture, construction, & mining machinery mfg	—	4	4	e	D	D	D	D	D	D	D	D
3332	Industrial machinery mfg . .	3	18	8	858	38 896	461	967	16 456	93 400	73 699	161 339	4 666
33322	Plastics & rubber industry machinery mfg	—	5	4	e	D	D	D	D	D	D	D	450
333220	Plastics & rubber industry machinery mfg	—	5	4	e	D	D	D	D	D	D	D	450
33329	Other industrial machinery mfg	4	12	4	601	29 222	319	695	12 531	74 299	61 350	129 798	4 216
3333	Commercial & service industry machinery mfg . .	1	9	5	677	20 953	492	957	11 827	54 655	23 653	77 276	3 344
33331	Commercial & service industry machinery mfg	1	9	5	677	20 953	492	957	11 827	54 655	23 653	77 276	3 344
333314	Optical instrument & lens mfg	1	6	4	f	D	D	D	D	D	D	D	D
3335	Metalworking machinery mfg	5	55	17	1 928	86 489	1 158	2 344	46 048	186 914	111 834	294 227	9 414
33351	Metalworking machinery mfg	5	55	17	1 928	86 489	1 158	2 344	46 048	186 914	111 834	294 227	9 414
333511	Industrial mold mfg	4	15	4	285	16 042	224	526	10 422	28 233	9 332	36 434	2 174
333514	Special die & tool, die set, jig, & fixture mfg .	2	23	7	363	15 722	268	551	9 788	28 375	10 543	38 535	2 519
333515	Cutting tool & machine tool accessory mfg . .	—	7	1	e	D	D	D	D	D	D	D	D
333516	Rolling mill machinery & equipment mfg	9	2	1	f	D	D	D	D	D	D	D	D
3336	Engine, turbine, & power transmission equipment mfg	1	6	3	293	13 247	172	372	6 609	12 814	20 359	33 106	1 082
33361	Engine, turbine, & power transmission equipment mfg	1	6	3	293	13 247	172	372	6 609	12 814	20 359	33 106	1 082
3339	Other general-purpose machinery mfg	1	21	10	534	22 423	290	622	8 838	51 694	38 190	87 792	4 475
33399	All other general-purpose machinery mfg	1	16	7	436	18 618	221	480	6 507	42 531	30 092	71 218	3 137
333999	All other miscellaneous general-purpose machinery mfg	1	10	7	386	16 722	187	408	5 345	38 026	27 749	64 404	2 798

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	BOSTON—WORCESTER—LAWRENCE, MA—NH—ME—CT CMSA—Con.												
	Worcester, MA—CT PMSA—Con.												
31-33	Manufacturing—Con.												
334	Computer & electronic product mfg	—	44	20	4 210	196 517	2 090	3 991	61 408	545 761	436 981	976 182	52 067
3341	Computer & peripheral equipment mfg	—	6	1	g	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg	—	6	1	g	D	D	D	D	D	D	D	D
334112	Computer storage device mfg	—	1	1	g	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	—	5	3	e	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg	—	4	2	e	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	—	4	2	e	D	D	D	D	D	D	D	D
3343	Audio & video equipment mfg	—	3	2	f	D	D	D	D	D	D	D	D
33431	Audio & video equipment mfg	—	3	2	f	D	D	D	D	D	D	D	D
334310	Audio & video equipment mfg	—	3	2	f	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	—	15	9	1 360	59 107	867	1 795	28 125	145 850	141 757	274 566	18 679
33441	Semiconductor & other electronic component mfg	—	15	9	1 360	59 107	867	1 795	28 125	145 850	141 757	274 566	18 679
334413	Semiconductor & related device mfg ...	—	4	3	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	4	13	4	378	12 591	193	332	4 602	27 737	21 345	51 947	D
33451	Navigational, measuring, medical, & control instruments mfg	4	13	4	378	12 591	193	332	4 602	27 737	21 345	51 947	D
335	Electrical equipment, appliance, & component mfg	3	24	17	1 883	83 906	1 214	2 446	39 732	202 108	184 922	386 797	13 153
3359	Other electrical equipment & component mfg	3	16	13	1 589	72 061	1 044	2 113	34 990	168 685	166 069	334 876	D
33592	Communication & energy wire & cable mfg	3	10	10	1 336	61 142	904	1 797	30 626	141 144	147 072	286 982	10 659
335929	Other communication & energy wire mfg ...	3	9	9	g	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	3	11	5	313	10 911	156	294	4 332	19 567	20 610	41 291	1 359
337	Furniture & related product mfg	—	30	9	1 129	36 757	874	1 549	21 357	69 486	76 317	145 385	5 148
3371	Household & institutional furniture & kitchen cabinet mfg	1	17	3	e	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	1	12	3	295	7 999	243	427	5 746	10 900	8 525	19 183	287
3372	Office furniture (including fixtures) mfg	—	11	6	803	27 887	604	1 062	14 981	56 670	65 820	122 290	4 678
33721	Office furniture (including fixtures) mfg	—	11	6	803	27 887	604	1 062	14 981	56 670	65 820	122 290	4 678
337214	Office furniture (except wood) mfg	—	1	1	e	D	D	D	D	D	D	D	D
337215	Showcase, partition, shelving, & locker mfg	2	6	3	285	8 967	224	483	6 063	15 537	10 420	25 692	D
339	Miscellaneous mfg	1	66	18	2 031	59 600	1 322	2 620	27 933	138 954	74 212	217 713	7 465
3391	Medical equipment & supplies mfg	1	29	11	1 465	44 894	941	1 873	20 165	104 643	45 593	154 831	6 270
33911	Medical equipment & supplies mfg	1	29	11	1 465	44 894	941	1 873	20 165	104 643	45 593	154 831	6 270
339115	Ophthalmic goods mfg	—	6	5	1 204	38 235	746	1 514	16 224	78 161	35 703	118 664	5 234
3399	Other miscellaneous mfg ..	3	37	7	566	14 706	381	747	7 768	34 311	28 619	62 882	1 195

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
PITTSFIELD, MA MSA													
31-33	Manufacturing	-	125	43	6 975	283 553	3 642	7 521	115 468	660 938	483 093	1 138 706	56 942
322	Paper mfg	-	8	5	g	D	D	D	D	D	D	D	27 231
3221	Pulp, paper, & paperboard mills	-	4	4	1 638	66 970	1 051	2 416	40 115	235 886	181 348	415 963	27 058
32212	Paper mills	-	4	4	1 638	66 970	1 051	2 416	40 115	235 886	181 348	415 963	27 058
322121	Paper (except newsprint) mills	-	4	4	1 638	66 970	1 051	2 416	40 115	235 886	181 348	415 963	27 058
326	Plastics & rubber products mfg	1	9	5	460	15 993	329	703	9 037	35 137	23 182	58 795	D
3261	Plastics product mfg	2	8	4	e	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	2	7	3	e	D	D	D	D	D	D	D	D
326199	All other plastics product mfg	2	7	3	e	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	1	15	7	343	9 722	274	471	6 954	14 308	9 893	23 847	629
333	Machinery mfg	-	19	8	1 163	50 827	665	1 335	23 618	77 186	92 795	167 138	6 613
3332	Industrial machinery mfg ..	-	3	3	f	D	D	D	D	D	D	D	D
33329	Other industrial machinery mfg	-	2	2	f	D	D	D	D	D	D	D	D
333291	Paper industry machinery mfg	-	2	2	f	D	D	D	D	D	D	D	D
3335	Metalworking machinery mfg	-	14	5	e	D	D	D	D	D	D	D	D
33351	Metalworking machinery mfg	-	14	5	e	D	D	D	D	D	D	D	D
333511	Industrial mold mfg ...	-	8	4	270	10 419	212	490	7 369	20 087	6 775	25 810	1 850
334	Computer & electronic product mfg	-	3	1	g	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	3	1	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	3	1	g	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	1	1	g	D	D	D	D	D	D	D	D
PROVIDENCE-FALL RIVER-WARWICK, RI-MA MSA													
31-33	Manufacturing	1	2 920	867	97 789	2 926 041	69 941	140 374	1 662 594	6 817 057	6 785 104	13 692 000	521 650
	Providence-Fall River-Warwick, RI-MA MSA (MA Part)	-	506	192	25 911	783 265	19 116	39 006	439 941	1 618 779	2 061 586	3 722 249	137 433
	Providence-Fall River-Warwick, RI-MA MSA (RI Part)	1	2 414	675	71 878	2 142 776	50 825	101 368	1 222 653	5 198 278	4 723 518	9 969 751	384 217
311	Food mfg	2	167	34	2 929	70 436	1 947	4 328	40 225	215 059	234 720	451 474	17 604
3118	Bakeries & tortilla mfg	2	111	17	1 566	32 435	1 036	1 740	18 442	89 566	63 543	153 164	4 055
31181	Bread & bakery product mfg	2	104	17	g	D	D	D	D	D	D	D	D
311811	Retail bakeries	4	73	3	e	D	D	D	D	D	D	D	D
311812	Commercial bakeries ..	1	29	12	g	D	D	D	D	D	D	D	D
3119	Other food mfg	4	13	4	e	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	1	14	4	364	13 782	202	420	5 727	34 362	86 417	120 175	D
3121	Beverage mfg	1	14	4	364	13 782	202	420	5 727	34 362	86 417	120 175	D
31211	Soft drink & ice mfg	1	11	3	e	D	D	D	D	D	D	D	D
312111	Soft drink mfg	1	7	3	e	D	D	D	D	D	D	D	D
313	Textile mills	-	106	60	9 124	276 653	7 182	16 507	179 785	544 322	601 944	1 149 644	50 759
3131	Fiber, yarn, & thread mills ..	3	14	7	f	D	D	D	D	D	D	D	D
31311	Fiber, yarn, & thread mills	3	14	7	f	D	D	D	D	D	D	D	D
3132	Fabric mills	-	49	29	i	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills ..	-	12	8	h	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	-	12	8	h	D	D	D	D	D	D	D	D
31322	Narrow fabric mills & schiffli machine embroidery	-	23	13	g	D	D	D	D	D	D	D	D
313221	Narrow fabric mills	-	21	13	g	D	D	D	D	D	D	D	D
31323	Nonwoven fabric mills ...	-	3	2	e	D	D	D	D	D	D	D	D
313230	Nonwoven fabric mills ..	-	3	2	e	D	D	D	D	D	D	D	D
31324	Knit fabric mills	1	11	6	e	D	D	D	D	D	D	D	D
313249	Other knit fabric & lace mills	1	11	6	e	D	D	D	D	D	D	D	D

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31-33	PROVIDENCE—FALL RIVER—WARWICK, RI—MA MSA—Con.												
	Manufacturing—Con.												
313	Textile mills—Con.												
3133	Textile & fabric finishing & fabric coating mills	—	43	24	3 124	104 890	2 235	5 155	65 446	251 582	191 207	443 943	D
31331	Textile & fabric finishing mills	—	38	21	2 960	99 939	2 116	4 951	62 602	240 761	176 028	417 957	D
313311	Broadwoven fabric finishing mills	1	27	14	h	D	D	D	D	D	D	D	D
313312	Textile & fabric finishing mills	—	11	7	e	D	D	D	D	D	D	D	D
314	Textile product mills	3	65	23	h	D	D	D	D	D	D	D	D
3141	Textile furnishings mills	6	25	12	g	D	D	D	D	D	D	D	D
31411	Carpet & rug mills	2	5	4	e	D	D	D	D	D	D	D	D
314110	Carpet & rug mills	2	5	4	e	D	D	D	D	D	D	D	D
31412	Curtain & linen mills	7	20	8	g	D	D	D	D	D	D	D	D
314121	Curtain & drapery mills	8	16	6	863	14 740	714	1 372	11 227	37 997	37 098	73 614	D
3149	Other textile product mills	1	40	11	g	D	D	D	D	D	D	D	D
31499	All other textile product mills	—	26	9	958	22 753	776	1 380	12 143	57 318	31 651	88 445	D
314999	All other miscellaneous textile product mills	1	20	7	f	D	D	D	D	D	D	D	D
315	Apparel mfg	2	64	38	h	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	2	49	32	3 235	61 404	2 901	5 274	47 640	100 289	90 517	187 444	D
31521	Cut & sew apparel contractors	2	27	16	1 148	17 546	1 060	1 658	14 571	25 377	3 291	28 659	572
315212	Women's, girls', & infants' cut & sew apparel contractors	2	25	15	f	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	1	9	8	1 448	31 026	1 285	2 560	23 349	53 075	70 358	120 221	D
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	—	3	3	f	D	D	D	D	D	D	D	D
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	3	4	4	e	D	D	D	D	D	D	D	D
31523	Women's & girls' cut & sew apparel mfg	5	8	5	e	D	D	D	D	D	D	D	D
315234	Women's & girls' cut & sew suit, coat, skirt mfg	8	3	2	e	D	D	D	D	D	D	D	D
3159	Apparel accessories & other apparel mfg	1	13	5	e	D	D	D	D	D	D	D	D
31599	Apparel accessories & other apparel mfg	1	13	5	e	D	D	D	D	D	D	D	D
316	Leather & allied product mfg	2	17	10	f	D	D	D	D	D	D	D	D
3169	Other leather & allied product mfg	2	17	10	f	D	D	D	D	D	D	D	D
31699	Other leather & allied product mfg	2	17	10	f	D	D	D	D	D	D	D	D
316993	Personal leather good (except women's handbag & purse) mfg	—	9	5	e	D	D	D	D	D	D	D	D
321	Wood product mfg	1	50	9	f	D	D	D	D	D	D	D	D
3219	Other wood product mfg	1	38	7	e	D	D	D	D	D	D	D	D
322	Paper mfg	2	49	33	2 167	68 641	1 601	3 125	41 057	159 425	164 325	322 106	D
3222	Converted paper product mfg	2	49	33	2 167	68 641	1 601	3 125	41 057	159 425	164 325	322 106	D
32221	Paperboard container mfg	3	29	19	1 444	43 177	1 093	2 141	27 219	87 831	84 974	171 714	D
322211	Corrugated & solid fiber box mfg	1	9	5	e	D	D	D	D	D	D	D	D
322212	Folding paperboard box mfg	2	7	6	538	19 533	412	870	13 564	38 774	28 379	66 340	2 114
322213	Setup paperboard box mfg	6	9	6	e	D	D	D	D	D	D	D	D
32222	Paper bag & coated & treated paper mfg	—	12	8	544	21 248	376	795	11 718	60 957	74 228	134 380	D
322222	Coated & laminated paper mfg	—	11	7	e	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	PROVIDENCE-FALL RIVER-WARWICK, RI-MA MSA—Con.												
	Manufacturing—Con.												
323	Printing & related support activities	4	248	44	3 543	108 977	2 432	4 501	65 324	240 950	157 197	399 273	22 305
3231	Printing & related support activities	4	248	44	3 543	108 977	2 432	4 501	65 324	240 950	157 197	399 273	22 305
32311	Printing	4	225	40	h	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing ..	5	100	22	1 671	54 860	1 150	2 125	31 718	112 258	76 661	189 714	D
323113	Commercial screen printing	1	26	5	355	9 129	258	480	5 490	28 070	27 302	55 412	D
323119	Other commercial printing	7	27	5	e	D	D	D	D	D	D	D	D
325	Chemical mfg	1	77	26	3 661	159 677	2 312	5 021	76 009	348 437	418 793	799 255	D
3251	Basic chemical mfg	1	13	7	f	D	D	D	D	D	D	D	D
32513	Dye & pigment mfg	—	3	3	382	25 623	158	532	11 254	896	58 992	92 104	D
325132	Synthetic organic dye & pigment mfg	—	3	3	382	25 623	158	532	11 254	896	58 992	92 104	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	—	6	3	f	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg ..	—	1	1	f	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg	—	1	1	f	D	D	D	D	D	D	D	D
3255	Paint, coating, & adhesive mfg	1	13	3	253	12 441	117	208	2 931	25 041	29 473	55 858	D
3256	Soap, cleaning compound, & toilet preparation mfg ..	8	11	2	f	D	D	D	D	D	D	D	D
32561	Soap & cleaning compound mfg	9	10	1	e	D	D	D	D	D	D	D	D
325611	Soap & other detergent mfg	9	4	1	e	D	D	D	D	D	D	D	D
3259	Other chemical product mfg	—	25	8	g	D	D	D	D	D	D	D	D
32599	All other chemical product & preparation mfg	—	24	8	g	D	D	D	D	D	D	D	D
325991	Custom compounding of purchased resin...	—	11	5	f	D	D	D	D	D	D	D	D
325992	Photographic film, paper, plate, & chemical mfg	—	2	1	e	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	1	125	59	6 006	179 253	4 390	8 656	113 251	468 149	373 168	838 274	78 013
3261	Plastics product mfg	1	107	53	5 438	163 041	3 940	7 835	101 324	433 839	337 040	766 947	76 615
32611	Unsupported plastics film, sheet, & bag mfg ..	—	15	6	g	D	D	D	D	D	D	D	D
326113	Unsupported plastics film & sheet (except packaging) mfg	1	10	4	f	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	1	75	42	4 086	113 441	2 971	5 906	70 191	244 296	173 946	418 445	D
326199	All other plastics product mfg	1	75	42	4 086	113 441	2 971	5 906	70 191	244 296	173 946	418 445	D
3262	Rubber product mfg	2	18	6	568	16 212	450	821	11 927	34 310	36 128	71 327	1 398
32629	Other rubber product mfg	2	17	6	f	D	D	D	D	D	D	D	D
326299	All other rubber product mfg	2	12	5	e	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	1	60	11	1 381	47 076	1 089	2 254	34 684	125 406	71 295	196 019	8 869
3272	Glass & glass product mfg ..	1	17	3	f	D	D	D	D	D	D	D	D
32721	Glass & glass product mfg	1	17	3	f	D	D	D	D	D	D	D	D
327212	Other pressed & blown glass & glassware mfg	—	5	1	f	D	D	D	D	D	D	D	D
3273	Cement & concrete product mfg	1	23	4	e	D	D	D	D	D	D	D	D
3279	Other nonmetallic mineral product mfg	1	11	3	e	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	PROVIDENCE-FALL RIVER-WARWICK, RI-MA MSA—Con.												
	Manufacturing—Con.												
331	Primary metal mfg	—	99	34	4 103	129 491	3 424	7 588	98 667	218 673	1 064 714	1 321 377	D
3312	Steel product mfg from purchased steel	—	3	2	g	D	D	D	D	D	D	D	D
33122	Rolling & drawing of purchased steel	—	3	2	g	D	D	D	D	D	D	D	D
331222	Steel wire drawing	—	3	2	g	D	D	D	D	D	D	D	D
3314	Nonferrous metal (except aluminum) production & processing	—	35	20	1 945	66 470	1 441	3 082	43 698	97 284	916 324	1 052 092	D
33142	Copper rolling, drawing, extruding, & alloying	—	6	4	272	10 591	193	390	6 101	28 239	39 672	67 027	1 482
33149	Other nonferrous metal rolling, drawing, extruding, & alloying	—	24	15	1 631	54 493	1 218	2 632	36 787	63 199	866 290	968 879	D
331491	Other nonferrous metal rolling, drawing, & extruding	—	14	9	g	D	D	D	D	D	D	D	D
331492	Other nonferrous metal secondary smelting, refining, & alloying	—	10	6	e	D	D	D	D	D	D	D	D
3315	Foundries	2	59	11	696	19 772	559	1 102	13 370	38 688	24 116	62 592	D
33152	Nonferrous metal foundries	2	49	7	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	1	513	140	12 452	373 047	9 011	17 463	234 499	676 840	557 146	1 224 555	52 699
3321	Forging & stamping	—	57	22	1 326	45 660	963	2 007	27 645	98 043	81 960	180 203	8 195
33211	Forging & stamping	—	57	22	1 326	45 660	963	2 007	27 645	98 043	81 960	180 203	8 195
332116	Metal stamping	—	51	21	g	D	D	D	D	D	D	D	D
3322	Cutlery & handtool mfg	1	25	9	f	D	D	D	D	D	D	D	D
33221	Cutlery & handtool mfg	1	25	9	f	D	D	D	D	D	D	D	D
332212	Hand & edge tool mfg	—	17	6	f	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg	1	45	12	g	D	D	D	D	D	D	D	D
33231	Plate work & fabricated structural product mfg	1	17	6	g	D	D	D	D	D	D	D	D
332312	Fabricated structural metal mfg	1	16	5	g	D	D	D	D	D	D	D	D
33232	Ornamental & architectural metal products mfg	1	28	6	f	D	D	D	D	D	D	D	D
332322	Sheet metal work mfg	—	15	3	e	D	D	D	D	D	D	D	D
3324	Boiler, tank, & shipping container mfg	—	9	4	f	D	D	D	D	D	D	D	D
33242	Metal tank (heavy gauge) mfg	—	4	3	f	D	D	D	D	D	D	D	D
332420	Metal tank (heavy gauge) mfg	—	4	3	f	D	D	D	D	D	D	D	D
3325	Hardware mfg	—	10	3	e	D	D	D	D	D	D	D	D
33251	Hardware mfg	—	10	3	e	D	D	D	D	D	D	D	D
332510	Hardware mfg	—	10	3	e	D	D	D	D	D	D	D	D
3326	Spring & wire product mfg	1	21	5	e	D	D	D	D	D	D	D	D
33261	Spring & wire product mfg	1	21	5	e	D	D	D	D	D	D	D	D
332618	Other fabricated wire product mfg	1	20	5	e	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	2	161	28	g	D	D	D	D	D	D	D	12 490
33271	Machine shops	1	114	13	1 127	35 222	864	1 513	23 179	64 062	29 040	92 237	7 080
332710	Machine shops	1	114	13	1 127	35 222	864	1 513	23 179	64 062	29 040	92 237	7 080
33272	Turned product & screw, nut, & bolt mfg	3	47	15	f	D	D	D	D	D	D	D	5 410
332721	Precision turned product mfg	2	26	4	e	D	D	D	D	D	D	D	1 277
332722	Bolt, nut, screw, rivet, & washer mfg	3	21	11	f	D	D	D	D	D	D	D	4 133
3328	Coating, engraving, heat treating, & allied activities	2	139	37	2 943	72 551	2 335	4 549	48 195	136 412	69 381	205 806	10 125
33281	Coating, engraving, heat treating, & allied activities	2	139	37	2 943	72 551	2 335	4 549	48 195	136 412	69 381	205 806	10 125
332812	Metal coating/engraving (exc jewelry/silverware)/allied services	2	30	10	f	D	D	D	D	D	D	D	D
332813	Electroplating, plating, polishing, anodizing, & coloring	2	101	27	2 072	52 146	1 647	3 300	35 440	98 320	54 195	152 480	6 275

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31-33	PROVIDENCE—FALL RIVER—WARWICK, RI—MA MSA—Con.												
	Manufacturing—Con.												
332	Fabricated metal product mfg—Con.												
3329	Other fabricated metal product mfg.....	1	46	20	g	D	D	D	D	D	D	D	D
33291	Metal valve mfg.....	—	6	5	e	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg.....	2	40	15	g	D	D	D	D	D	D	D	D
332999	All other miscellaneous fabricated metal product mfg.....	2	25	13	g	D	D	D	D	D	D	D	D
333	Machinery mfg.....	1	207	45	3 965	142 198	2 556	4 819	75 599	305 527	208 598	508 078	14 668
3332	Industrial machinery mfg ..	1	38	10	707	26 245	378	740	12 757	44 319	53 629	98 475	D
33322	Plastics & rubber industry machinery mfg.....	—	4	2	e	D	D	D	D	D	D	D	D
333220	Plastics & rubber industry machinery mfg.....	—	4	2	e	D	D	D	D	D	D	D	D
33329	Other industrial machinery mfg.....	2	34	8	e	D	D	D	D	D	D	D	D
3333	Commercial & service industry machinery mfg ..	—	12	6	461	14 975	280	521	7 261	35 675	34 407	68 417	1 135
33331	Commercial & service industry machinery mfg.....	—	12	6	461	14 975	280	521	7 261	35 675	34 407	68 417	1 135
333312	Commercial laundry, drycleaning, & pressing machine mfg.....	—	2	2	e	D	D	D	D	D	D	D	D
3335	Metalworking machinery mfg.....	2	115	17	g	D	D	D	D	D	D	D	5 934
33351	Metalworking machinery mfg.....	2	115	17	g	D	D	D	D	D	D	D	5 934
333514	Special die & tool, die set, jig, & fixture mfg ..	2	56	3	499	14 984	394	666	10 940	28 484	8 778	36 843	D
333515	Cutting tool & machine tool accessory mfg ..	2	28	6	e	D	D	D	D	D	D	D	D
3339	Other general-purpose machinery mfg.....	—	28	7	1 042	41 795	587	1 140	17 765	103 631	62 151	161 487	2 740
33391	Pump & compressor mfg.....	—	2	1	e	D	D	D	D	D	D	D	D
333911	Pump & pumping equipment mfg.....	—	2	1	e	D	D	D	D	D	D	D	D
33399	All other general-purpose machinery mfg.....	1	21	5	513	22 872	264	461	7 624	59 606	16 740	75 923	D
333999	All other miscellaneous general-purpose machinery mfg.....	1	15	3	e	D	D	D	D	D	D	D	868
334	Computer & electronic product mfg.....	1	90	42	6 732	208 830	4 085	7 881	90 730	549 412	448 069	1 009 027	44 685
3341	Computer & peripheral equipment mfg.....	1	7	4	f	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg.....	1	7	4	f	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment mfg.....	—	5	3	f	D	D	D	D	D	D	D	D
3342	Communications equipment mfg.....	—	5	1	g	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg.....	—	4	1	g	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg.....	—	4	1	g	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg.....	—	37	20	2 762	78 928	1 916	3 369	35 405	174 806	104 012	280 289	D
33441	Semiconductor & other electronic component mfg.....	—	37	20	2 762	78 928	1 916	3 369	35 405	174 806	104 012	280 289	D
334413	Semiconductor & related device mfg...	—	5	4	g	D	D	D	D	D	D	D	D
334415	Electronic resistor mfg.....	—	5	5	468	13 313	342	779	7 230	27 842	8 680	36 530	1 955
334418	Printed circuit assembly (electronic assembly) mfg.....	—	4	3	e	D	D	D	D	D	D	D	D
334419	Other electronic component mfg.....	3	12	5	e	D	D	D	D	D	D	D	D

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

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	PROVIDENCE—FALL RIVER—WARWICK, RI—MA MSA—Con.												
	Manufacturing—Con.												
334	Computer & electronic product mfg—Con.												
3345	Navigational, measuring, medical, & control instruments mfg	1	40	17	1 772	59 986	885	1 991	26 899	156 266	130 785	290 621	D
33451	Navigational, measuring, medical, & control instruments mfg	1	40	17	1 772	59 986	885	1 991	26 899	156 266	130 785	290 621	D
334512	Automatic environmental control mfg	—	4	2	f	D	D	D	D	D	D	D	D
334515	Electricity measuring & testing instrument mfg	—	7	6	e	D	D	D	D	D	D	D	D
334519	Other measuring & controlling device mfg	—	6	3	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	1	45	24	5 589	181 544	4 024	8 643	101 460	694 693	598 451	1 299 082	36 045
3351	Electric lighting equipment mfg	—	16	8	1 141	32 817	840	1 745	21 671	121 224	88 157	206 309	D
33512	Lighting fixture mfg	—	14	7	g	D	D	D	D	D	D	D	D
335122	Commercial/industrial/institutional electric lighting fixture mfg	—	8	5	f	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg	1	13	6	e	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	1	13	6	e	D	D	D	D	D	D	D	D
335314	Relay & industrial control mfg	1	11	5	e	D	D	D	D	D	D	D	D
3359	Other electrical equipment & component mfg	2	16	10	h	D	D	D	D	D	D	D	D
33592	Communication & energy wire & cable mfg	—	3	3	1 377	56 177	986	2 254	31 543	157 576	264 432	427 536	D
335929	Other communication & energy wire mfg	—	3	3	1 377	56 177	986	2 254	31 543	157 576	264 432	427 536	D
33593	Wiring device mfg	—	8	5	g	D	D	D	D	D	D	D	D
335931	Current-carrying wiring device mfg	—	8	5	g	D	D	D	D	D	D	D	D
33599	All other electrical equipment & component mfg	9	5	2	g	D	D	D	D	D	D	D	D
335999	All other miscellaneous electrical equipment & component mfg	9	4	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	—	50	14	4 950	195 702	2 776	5 101	62 392	394 176	341 211	739 071	D
3363	Motor vehicle parts mfg	—	16	3	h	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts mfg	—	4	2	h	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts mfg	—	4	2	h	D	D	D	D	D	D	D	D
3366	Ship & boat building	1	23	9	f	D	D	D	D	D	D	D	D
33661	Ship & boat building	1	23	9	f	D	D	D	D	D	D	D	D
336612	Boat building	2	18	6	f	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	4	74	22	g	D	D	D	D	D	D	D	D
3371	Household & institutional furniture & kitchen cabinet mfg	3	39	5	e	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	3	26	4	275	6 292	226	463	4 282	11 955	7 405	19 347	1 337
3372	Office furniture (including fixtures) mfg	1	32	16	g	D	D	D	D	D	D	D	D
33721	Office furniture (including fixtures) mfg	1	32	16	g	D	D	D	D	D	D	D	D
337212	Custom architectural woodwork & millwork mfg	—	9	5	f	D	D	D	D	D	D	D	D
337215	Showcase, partition, shelving, & locker mfg	3	22	11	f	D	D	D	D	D	D	D	D
3379	Other furniture related product mfg	9	3	1	e	D	D	D	D	D	D	D	D
33792	Blind & shade mfg	9	2	1	e	D	D	D	D	D	D	D	D
337920	Blind & shade mfg	9	2	1	e	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	PROVIDENCE—FALL RIVER—WARWICK, RI—MA MSA—Con.												
31-33	Manufacturing—Con.												
339	Miscellaneous mfg	1	796	194	21 452	569 890	15 208	29 733	309 013	1 426 466	1 066 941	2 510 766	D
3391	Medical equipment & supplies mfg	—	65	10	1 800	62 177	1 130	2 217	25 680	190 190	89 796	284 514	D
33911	Medical equipment & supplies mfg	—	65	10	1 800	62 177	1 130	2 217	25 680	190 190	89 796	284 514	D
339112	Surgical & medical instrument mfg	—	6	2	e	D	D	D	D	D	D	D	D
339113	Surgical appliance & supplies mfg	—	12	5	f	D	D	D	D	D	D	D	6 740
339115	Ophthalmic goods mfg	—	8	2	344	9 949	250	449	5 204	64 795	18 137	80 461	D
3399	Other miscellaneous mfg	2	731	184	19 652	507 713	14 078	27 516	283 333	1 236 276	977 145	2 226 252	46 901
33991	Jewelry & silverware mfg	2	594	148	15 568	385 126	11 211	22 148	216 222	941 660	813 674	1 768 692	D
339911	Jewelry (except costume) mfg	2	170	49	4 541	116 235	3 374	6 719	64 985	333 167	299 108	633 654	7 796
339912	Silverware & plated ware mfg	—	10	8	f	D	D	D	D	D	D	D	D
339913	Jewelers' material & lapidary work mfg	1	113	25	2 959	72 765	1 920	3 867	39 842	149 195	211 359	358 292	D
339914	Costume jewelry & novelty mfg	2	301	66	i	D	D	D	D	D	D	D	D
33993	Doll, toy, & game mfg	—	7	2	257	6 113	167	335	3 212	35 779	20 133	55 125	749
339932	Game, toy, & children's vehicle mfg	—	7	2	257	6 113	167	335	3 212	35 779	20 133	55 125	749
33994	Office supplies (except paper) mfg	1	10	6	g	D	D	D	D	D	D	D	D
339941	Pen & mechanical pencil mfg	—	6	6	g	D	D	D	D	D	D	D	D
33995	Sign mfg	4	40	12	f	D	D	D	D	D	D	D	D
339950	Sign mfg	4	40	12	f	D	D	D	D	D	D	D	D
33999	All other miscellaneous mfg	2	65	16	1 610	50 808	1 073	2 089	25 649	91 690	56 222	149 101	5 103
339991	Gasket, packing, & sealing device mfg	—	5	3	e	D	D	D	D	D	D	D	D
339999	All other miscellaneous mfg	4	36	9	f	D	D	D	D	D	D	D	D
	SPRINGFIELD, MA MSA												
31-33	Manufacturing	—	962	345	38 854	1 389 569	26 677	54 711	762 557	3 691 418	3 336 508	6 974 558	232 274
311	Food mfg	—	45	14	2 202	82 090	1 179	2 549	25 887	164 634	330 720	497 156	12 606
3115	Dairy product mfg	—	6	4	1 291	63 342	523	1 095	15 123	90 901	232 077	322 886	8 623
31151	Dairy product (except frozen) mfg	—	4	3	e	D	D	D	D	D	D	D	D
31152	Ice cream & frozen dessert mfg	—	2	1	f	D	D	D	D	D	D	D	D
311520	Ice cream & frozen dessert mfg	—	2	1	f	D	D	D	D	D	D	D	D
3116	Meat product mfg	—	7	5	558	13 105	446	1 168	7 848	59 216	87 874	148 919	D
31161	Animal slaughtering & processing	—	7	5	558	13 105	446	1 168	7 848	59 216	87 874	148 919	D
311612	Meat processed from carcasses	—	5	3	e	D	D	D	D	D	D	D	D
3118	Bakeries & tortilla mfg	5	23	3	261	3 844	140	181	1 795	7 881	4 680	12 567	243
31181	Bread & bakery product mfg	5	23	3	261	3 844	140	181	1 795	7 881	4 680	12 567	243
313	Textile mills	—	15	8	883	27 350	649	1 470	16 657	69 850	67 813	142 045	D
3132	Fabric mills	—	8	4	578	16 867	435	917	10 888	42 882	38 954	84 218	D
31323	Nonwoven fabric mills	—	3	3	e	D	D	D	D	D	D	D	D
313230	Nonwoven fabric mills	—	3	3	e	D	D	D	D	D	D	D	D
321	Wood product mfg	—	35	8	435	9 928	353	644	7 100	26 728	90 480	117 931	1 485
322	Paper mfg	—	62	44	5 317	181 105	3 804	8 063	109 585	565 477	683 796	1 207 067	39 493
3221	Pulp, paper, & paperboard mills	—	6	6	616	22 217	450	828	13 925	71 962	62 298	142 742	3 428
32212	Paper mills	—	4	4	e	D	D	D	D	D	D	D	D
322121	Paper (except newsprint) mills	—	4	4	e	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	SPRINGFIELD, MA MSA—Con.												
31-33	Manufacturing—Con.												
322	Paper mfg—Con.												
3222	Converted paper product mfg	—	56	38	4 701	158 888	3 354	7 235	95 660	493 515	621 498	1 064 325	36 065
32221	Paperboard container mfg	—	22	17	1 451	49 086	1 062	2 205	29 823	100 605	112 883	211 816	9 888
322211	Corrugated & solid fiber box mfg	—	8	7	777	28 778	529	1 096	14 989	56 100	65 283	120 644	2 650
322212	Folding paperboard box mfg	—	4	2	260	8 790	213	501	6 625	18 976	17 976	35 200	D
32222	Paper bag & coated & treated paper mfg	—	13	9	1 159	49 508	758	1 783	25 367	139 833	262 979	402 705	18 400
322221	Coated & laminated packaging paper & plastics film mfg	—	3	3	315	14 613	232	641	8 406	60 097	123 767	183 346	13 103
322222	Coated & laminated paper mfg	—	10	6	844	34 895	526	1 142	16 961	79 736	139 212	219 359	5 297
32223	Stationery product mfg ..	—	15	8	1 634	45 381	1 157	2 408	30 087	226 090	226 052	403 265	D
322231	Die-cut paper & paperboard office supplies mfg	—	4	2	e	D	D	D	D	D	D	D	D
322232	Envelope mfg	—	4	2	f	D	D	D	D	D	D	D	D
322233	Stationery, tablet, & related product mfg ..	—	7	4	f	D	D	D	D	D	D	D	D
32229	Other converted paper product mfg	—	6	4	457	14 913	377	839	10 383	26 987	19 584	46 539	D
322299	All other converted paper product mfg ...	—	5	3	e	D	D	D	D	D	D	D	D
323	Printing & related support activities	1	119	34	3 478	103 999	2 675	5 270	66 568	276 602	210 501	486 811	22 310
3231	Printing & related support activities	1	119	34	3 478	103 999	2 675	5 270	66 568	276 602	210 501	486 811	22 310
32311	Printing	1	97	31	3 161	94 759	2 436	4 909	60 665	260 884	205 559	466 236	20 507
323110	Commercial lithographic printing ..	1	42	16	1 544	49 199	1 151	2 272	29 345	104 385	105 800	209 224	14 270
323113	Commercial screen printing	4	11	5	319	9 100	242	398	5 692	15 804	9 822	25 514	941
323116	Manifold business form printing	—	4	4	437	12 138	349	648	8 224	53 127	31 683	85 422	895
323118	Blankbook, looseleaf binder, & device mfg .	—	5	4	f	D	D	D	D	D	D	D	D
32312	Support activities for printing	—	22	3	317	9 240	239	361	5 903	15 718	4 942	20 575	1 803
325	Chemical mfg	1	23	15	1 862	80 903	1 113	2 485	35 702	235 463	290 238	533 533	16 382
3259	Other chemical product mfg	1	10	5	1 338	55 538	855	1 950	25 864	162 639	140 703	304 694	D
32599	All other chemical product & preparation mfg	1	9	5	g	D	D	D	D	D	D	D	D
325992	Photographic film, paper, plate, & chemical mfg	—	2	2	f	D	D	D	D	D	D	D	D
325998	All other miscellaneous chemical product & preparation mfg	7	4	3	e	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	1	60	33	3 862	143 977	2 854	5 600	85 053	334 684	277 656	607 752	30 339
3261	Plastics product mfg	1	56	32	3 764	141 495	2 793	5 478	83 516	332 851	272 550	600 883	30 101
32611	Unsupported plastics film, sheet, & bag mfg ..	—	11	9	1 194	67 793	731	1 514	35 732	174 095	158 976	328 832	14 154
326113	Unsupported plastics film & sheet (except packaging) mfg	—	6	5	g	D	D	D	D	D	D	D	D
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg	—	4	2	f	D	D	D	D	D	D	D	D
326121	Unsupported plastics profile shape mfg	—	2	1	f	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	3	37	20	1 682	45 241	1 321	2 476	26 971	103 112	73 954	176 099	10 794
326199	All other plastics product mfg	3	36	19	g	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	1	27	7	420	12 129	327	695	7 992	27 151	22 108	49 512	2 552

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31-33	SPRINGFIELD, MA MSA—Con.												
	Manufacturing—Con.												
331	Primary metal mfg	2	21	14	1 112	35 406	894	1 921	25 320	77 842	111 674	191 728	12 672
3312	Steel product mfg from purchased steel	6	5	5	335	11 657	277	504	8 361	32 253	52 791	84 739	3 560
33122	Rolling & drawing of purchased steel	6	5	5	335	11 657	277	504	8 361	32 253	52 791	84 739	3 560
3314	Nonferrous metal (except aluminum) production & processing	—	4	4	340	10 784	281	617	8 184	19 172	44 374	65 476	8 019
33142	Copper rolling, drawing, extruding, & alloying	—	3	3	e	D	D	D	D	D	D	D	D
331422	Copper wire (except mechanical) drawing	—	3	3	e	D	D	D	D	D	D	D	D
3315	Foundries	—	12	5	437	12 965	336	800	8 775	26 417	14 509	41 513	1 093
33152	Nonferrous metal foundries	—	9	3	274	7 828	222	484	5 330	16 521	8 295	24 743	804
332	Fabricated metal product mfg	—	251	72	7 700	300 778	5 313	10 747	176 050	682 184	355 563	1 034 182	35 919
3321	Forging & stamping	—	10	7	474	14 845	324	611	8 414	32 393	25 461	57 409	D
33211	Forging & stamping	—	10	7	474	14 845	324	611	8 414	32 393	25 461	57 409	D
332116	Metal stamping	—	9	6	e	D	D	D	D	D	D	D	848
3322	Cutlery & handtool mfg	—	10	5	1 128	51 673	731	1 907	31 656	177 174	72 693	249 081	D
33221	Cutlery & handtool mfg	—	10	5	1 128	51 673	731	1 907	31 656	177 174	72 693	249 081	D
332212	Hand & edge tool mfg	—	8	3	e	D	D	D	D	D	D	D	D
332213	Saw blade & handsaw mfg	—	2	2	f	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg	1	29	13	767	23 618	606	1 057	15 511	41 563	28 076	68 772	D
33232	Ornamental & architectural metal products mfg	—	27	12	f	D	D	D	D	D	D	D	1 604
332322	Sheet metal work mfg	—	17	7	502	16 040	426	712	11 121	24 532	18 151	42 032	1 204
3327	Machine shops, turned product, & screw, nut, & bolt mfg	2	130	21	1 856	74 411	1 306	2 784	47 343	138 105	58 784	194 565	13 717
33271	Machine shops	2	113	18	1 571	65 275	1 108	2 375	41 836	120 993	52 252	170 857	10 850
332710	Machine shops	2	113	18	1 571	65 275	1 108	2 375	41 836	120 993	52 252	170 857	10 850
33272	Turned product & screw, nut, & bolt mfg	1	17	3	285	9 136	198	409	5 507	17 112	6 532	23 708	2 867
332721	Precision turned product mfg	—	12	3	259	8 417	178	374	5 032	16 247	5 673	21 878	2 660
3328	Coating, engraving, heat treating, & allied activities	2	32	13	746	28 609	531	1 128	15 307	48 045	15 146	63 307	D
33281	Coating, engraving, heat treating, & allied activities	2	32	13	746	28 609	531	1 128	15 307	48 045	15 146	63 307	D
332813	Electroplating, plating, polishing, anodizing, & coloring	2	19	8	555	21 845	390	849	11 233	34 951	10 193	45 229	D
3329	Other fabricated metal product mfg	—	24	9	2 346	93 601	1 547	2 716	49 952	214 221	124 142	339 075	7 172
33291	Metal valve mfg	—	1	1	f	D	D	D	D	D	D	D	D
332912	Fluid power valve & hose fitting mfg	—	1	1	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg	—	23	8	g	D	D	D	D	D	D	D	D
332994	Small arms mfg	—	2	2	g	D	D	D	D	D	D	D	D
332999	All other miscellaneous fabricated metal product mfg	—	13	6	f	D	D	D	D	D	D	D	5 160
333	Machinery mfg	1	115	44	3 724	148 945	2 082	4 125	66 214	349 591	328 282	668 924	16 209
3332	Industrial machinery mfg	2	22	10	f	D	D	D	D	D	D	D	D
33329	Other industrial machinery mfg	—	17	8	f	D	D	D	D	D	D	D	D
333293	Printing machinery & equipment mfg	—	5	4	e	D	D	D	D	D	D	D	D
3333	Commercial & service industry machinery mfg	—	16	7	700	31 266	325	608	10 309	79 628	71 731	147 800	3 847
33331	Commercial & service industry machinery mfg	—	16	7	700	31 266	325	608	10 309	79 628	71 731	147 800	3 847
333314	Optical instrument & lens mfg	—	7	4	335	15 303	178	340	6 414	29 887	21 436	50 055	1 186
333315	Photographic & photocopying equipment mfg	—	3	2	e	D	D	D	D	D	D	D	D
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	—	3	3	527	18 026	239	523	6 234	30 745	26 625	58 506	1 683
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	—	3	3	527	18 026	239	523	6 234	30 745	26 625	58 506	1 683
333414	Heating equipment (except warm air furnaces) mfg	—	3	3	527	18 026	239	523	6 234	30 745	26 625	58 506	1 683

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	SPRINGFIELD, MA MSA—Con.												
	Manufacturing—Con.												
333	Machinery mfg—Con.												
3335	Metalworking machinery mfg	4	45	15	839	35 071	613	1 283	21 705	56 754	32 236	87 729	4 494
33351	Metalworking machinery mfg	4	45	15	839	35 071	613	1 283	21 705	56 754	32 236	87 729	4 494
3336	Engine, turbine, & power transmission equipment mfg	—	6	4	444	18 200	285	599	9 368	66 490	31 862	96 649	2 385
33361	Engine, turbine, & power transmission equipment mfg	—	6	4	444	18 200	285	599	9 368	66 490	31 862	96 649	2 385
333613	Mechanical power transmission equipment mfg	—	2	2	e	D	D	D	D	D	D	D	D
3339	Other general-purpose machinery mfg	—	21	5	528	20 768	207	332	6 159	48 641	128 916	173 615	2 457
33391	Pump & compressor mfg	—	2	1	e	D	D	D	D	D	D	D	D
333912	Air & gas compressor mfg	—	1	1	e	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	1	30	12	1 012	33 827	597	1 186	14 043	71 725	66 487	138 025	3 539
3344	Semiconductor & other electronic component mfg	—	14	8	642	19 166	446	907	9 401	44 152	39 919	83 528	1 517
33441	Semiconductor & other electronic component mfg	—	14	8	642	19 166	446	907	9 401	44 152	39 919	83 528	1 517
334419	Other electronic component mfg	—	6	4	449	14 947	296	609	6 961	36 019	34 314	69 599	1 227
335	Electrical equipment, appliance, & component mfg	—	9	6	f	D	D	D	D	D	D	D	D
3352	Household appliance mfg ..	—	2	2	e	D	D	D	D	D	D	D	D
33522	Major appliance mfg	—	1	1	e	D	D	D	D	D	D	D	D
335222	Household refrigerator & home freezer mfg ..	—	1	1	e	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	2	12	3	342	13 278	261	490	8 610	23 111	20 475	43 558	1 547
337	Furniture & related product mfg	—	33	6	610	16 956	452	867	9 951	40 280	39 454	79 394	2 766
3371	Household & institutional furniture & kitchen cabinet mfg	—	20	3	362	8 188	287	516	5 191	16 701	20 007	36 304	2 067
33712	Household & institutional furniture mfg	—	11	3	324	7 370	259	470	4 588	15 186	18 908	33 688	D
337127	Institutional furniture mfg	—	2	2	e	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	—	60	18	4 702	165 579	3 186	6 619	86 985	628 216	319 515	936 095	26 734
3391	Medical equipment & supplies mfg	4	22	3	269	5 684	194	334	3 037	11 289	5 466	16 877	315
33911	Medical equipment & supplies mfg	4	22	3	269	5 684	194	334	3 037	11 289	5 466	16 877	315
3399	Other miscellaneous mfg ..	—	38	15	4 433	159 895	2 992	6 285	83 948	616 927	314 049	919 218	26 419
33992	Sporting & athletic goods mfg	—	5	2	f	D	D	D	D	D	D	D	D
339920	Sporting & athletic goods mfg	—	5	2	f	D	D	D	D	D	D	D	D
33993	Doll, toy, & game mfg ...	—	7	4	2 703	94 845	1 974	4 155	51 998	359 302	149 889	507 817	9 896
339932	Game, toy, & children's vehicle mfg	—	6	4	h	D	D	D	D	D	D	D	D
33999	All other miscellaneous mfg	—	11	6	f	D	D	D	D	D	D	D	D
339994	Broom, brush, & mop mfg	—	4	4	399	9 334	252	539	4 634	19 954	13 510	36 382	D

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

²Industries with 250 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 250 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: c–100 to 249 employees; e–250 to 499 employees; f–500 to 999 employees; g–1,000 to 2,499 employees; h–2,500 to 4,999 employees; i–5,000 to 9,999 employees; j–10,000 to 24,999 employees; k–25,000 to 49,999 employees; l–50,000 to 99,999 employees; m–100,000 employees or more.

Table 3. Industry Statistics for Counties: 1997

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

NAICS code	Geographic area and industry	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)					Wages (\$1,000)
BARNSTABLE COUNTY, MA													
31-33	Manufacturing	2	226	23	2 561	82 427	1 540	2 602	35 545	229 549	122 342	349 442	D
334	Computer & electronic product mfg.....	1	24	6	f	D	D	D	D	D	D	D	D
BERKSHIRE COUNTY, MA													
31-33	Manufacturing	-	207	63	9 176	344 731	5 359	10 848	156 526	795 171	632 928	1 422 961	62 574
322	Paper mfg	-	9	6	g	D	D	D	D	D	D	D	D
3221	Pulp, paper, & paperboard mills	-	5	5	g	D	D	D	D	D	D	D	D
32212	Paper mills	-	5	5	g	D	D	D	D	D	D	D	D
322121	Paper (except newsprint) mills	-	5	5	g	D	D	D	D	D	D	D	D
323	Printing & related support activities	-	26	6	695	20 133	533	1 021	13 373	53 547	32 500	85 743	D
3231	Printing & related support activities	-	26	6	695	20 133	533	1 021	13 373	53 547	32 500	85 743	D
32311	Printing	-	24	6	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	1	15	9	1 000	35 433	750	1 540	21 753	78 188	101 168	179 190	5 292
3261	Plastics product mfg	1	14	8	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	1	26	11	595	16 029	482	857	11 442	25 080	15 083	39 908	1 225
333	Machinery mfg	-	22	9	1 249	54 586	723	1 483	25 713	86 420	98 163	181 898	D
3332	Industrial machinery mfg ..	-	5	4	f	D	D	D	D	D	D	D	D
33329	Other industrial machinery mfg	-	4	3	f	D	D	D	D	D	D	D	D
333291	Paper industry machinery mfg	-	3	2	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg.....	-	5	1	g	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	3	1	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	3	1	g	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	1	1	g	D	D	D	D	D	D	D	D
BRISTOL COUNTY, MA													
31-33	Manufacturing	1	915	363	49 363	1 654 235	35 735	72 224	910 584	3 890 632	3 688 758	7 651 402	280 675
311	Food mfg.....	1	85	15	2 192	49 710	1 333	2 226	24 487	138 942	182 657	322 312	8 993
3117	Seafood product preparation & packaging..	2	15	5	502	12 026	377	604	5 750	57 319	78 185	135 501	D
31171	Seafood product preparation & packaging	2	15	5	502	12 026	377	604	5 750	57 319	78 185	135 501	D
3118	Bakeries & tortilla mfg	-	48	4	1 150	23 304	568	859	9 363	56 695	36 481	93 178	2 604
31181	Bread & bakery product mfg	-	47	4	g	D	D	D	D	D	D	D	D
311812	Commercial bakeries ..	-	15	3	972	21 348	452	737	8 370	51 708	33 272	84 980	2 313
313	Textile mills	-	39	24	4 773	157 156	3 796	9 426	104 310	290 586	249 021	537 067	32 205
3132	Fabric mills	-	16	9	2 624	85 966	2 219	5 718	59 444	150 919	166 619	316 717	D
31321	Broadwoven fabric mills ..	-	5	4	g	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	-	5	4	g	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	-	20	14	2 097	69 581	1 534	3 613	43 878	135 959	77 329	211 572	D
31331	Textile & fabric finishing mills	-	19	13	g	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills	-	14	10	g	D	D	D	D	D	D	D	D
314	Textile product mills.....	5	33	15	1 604	31 723	1 317	2 349	19 817	72 976	61 188	133 321	D
3141	Textile furnishings mills....	8	13	9	g	D	D	D	D	D	D	D	D
31412	Curtain & linen mills.....	8	13	9	g	D	D	D	D	D	D	D	D
314121	Curtain & drapery mills	9	11	7	f	D	D	D	D	D	D	D	D

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	BRISTOL COUNTY, MA—Con.												
	Manufacturing—Con.												
315	Apparel mfg	4	67	47	5 478	104 481	4 950	9 522	84 922	171 695	165 407	332 135	D
3152	Cut & sew apparel mfg	4	60	44	i	D	D	D	D	D	D	D	D
31521	Cut & sew apparel contractors	2	33	22	g	D	D	D	D	D	D	D	D
315212	Women's, girls', & infants' cut & sew apparel contractors	2	32	21	1 504	22 968	1 393	2 385	19 213	32 203	4 286	36 497	D
31522	Men's & boys' cut & sew apparel mfg	4	10	10	h	D	D	D	D	D	D	D	D
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	4	6	6	g	D	D	D	D	D	D	D	D
31523	Women's & girls' cut & sew apparel mfg	3	14	10	924	14 412	819	1 393	12 237	19 210	25 446	43 598	D
315234	Women's & girls' cut & sew suit, coat, skirt mfg	3	6	5	f	D	D	D	D	D	D	D	D
322	Paper mfg	—	17	12	1 096	36 353	818	1 524	20 146	73 569	94 820	168 399	6 171
3222	Converted paper product mfg	—	17	12	1 096	36 353	818	1 524	20 146	73 569	94 820	168 399	6 171
32221	Paperboard container mfg	—	11	7	f	D	D	D	D	D	D	D	D
323	Printing & related support activities	2	71	20	1 605	48 977	1 226	2 368	30 565	104 560	56 052	160 909	D
3231	Printing & related support activities	2	71	20	1 605	48 977	1 226	2 368	30 565	104 560	56 052	160 909	D
32311	Printing	2	65	20	1 570	47 990	1 195	2 317	29 837	102 111	55 310	157 719	D
323110	Commercial lithographic printing	4	28	9	635	22 479	468	1 017	13 495	46 396	27 757	74 295	4 338
325	Chemical mfg	1	21	11	1 768	75 810	1 227	2 737	44 730	121 660	238 454	377 296	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	—	1	1	f	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg	—	1	1	f	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg	—	1	1	f	D	D	D	D	D	D	D	D
3259	Other chemical product mfg	—	7	6	875	44 555	579	1 398	25 964	75 763	135 579	227 675	D
32599	All other chemical product & preparation mfg	—	6	5	f	D	D	D	D	D	D	D	D
325992	Photographic film, paper, plate, & chemical mfg	—	2	2	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	1	38	16	2 255	59 227	1 786	3 194	38 272	138 538	98 357	237 075	5 190
3261	Plastics product mfg	1	26	11	901	21 093	673	1 197	12 837	51 949	41 308	94 618	3 058
32619	Other plastics product mfg	2	18	8	547	13 447	377	765	8 668	33 408	25 349	57 688	1 967
326199	All other plastics product mfg	2	18	8	547	13 447	377	765	8 668	33 408	25 349	57 688	1 967
3262	Rubber product mfg	1	12	5	1 354	38 134	1 113	1 997	25 435	86 589	57 049	142 457	2 132
32629	Other rubber product mfg	1	12	5	1 354	38 134	1 113	1 997	25 435	86 589	57 049	142 457	2 132
326291	Rubber product mfg for mechanical use	—	5	2	g	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	1	27	9	572	19 406	440	916	13 257	50 032	27 927	78 254	3 493
331	Primary metal mfg	—	23	15	1 704	65 427	1 208	2 634	40 511	145 437	815 861	984 823	18 953
3314	Nonferrous metal (except aluminum) production & processing	—	10	9	1 051	37 767	776	1 721	24 335	61 410	752 062	841 754	16 879
33149	Other nonferrous metal rolling, drawing, extruding, & alloying	—	7	7	f	D	D	D	D	D	D	D	D
331491	Other nonferrous metal rolling, drawing, & extruding	—	3	3	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	1	145	45	3 315	100 987	2 532	5 151	66 510	202 586	135 518	337 987	17 356
3321	Forging & stamping	—	17	7	613	19 767	457	875	11 963	34 455	30 049	63 908	2 561
33211	Forging & stamping	—	17	7	613	19 767	457	875	11 963	34 455	30 049	63 908	2 561
332116	Metal stamping	—	16	7	f	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	54	13	789	26 058	616	1 214	17 825	46 913	28 230	75 770	D
33271	Machine shops	1	45	9	531	17 857	423	817	12 061	31 912	11 647	43 918	D
332710	Machine shops	1	45	9	531	17 857	423	817	12 061	31 912	11 647	43 918	D

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BRISTOL COUNTY, MA—Con.												
31-33	Manufacturing—Con.												
332	Fabricated metal product mfg—Con.												
3328	Coating, engraving, heat treating, & allied activities.	-	17	8	565	15 696	415	991	11 476	36 709	19 254	55 619	3 533
33281	Coating, engraving, heat treating, & allied activities.....	-	17	8	565	15 696	415	991	11 476	36 709	19 254	55 619	3 533
332813	Electroplating, plating, polishing, anodizing, & coloring	-	12	7	505	13 950	373	915	10 527	32 852	18 759	51 265	3 314
333	Machinery mfg	1	69	20	1 870	71 089	1 182	1 862	29 719	167 484	141 860	310 937	10 848
3332	Industrial machinery mfg ..	-	13	5	762	34 602	439	500	9 206	100 131	68 154	170 860	4 754
33329	Other industrial machinery mfg	-	12	4	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	44	24	4 966	272 193	3 253	6 720	126 389	684 023	394 838	1 080 308	24 074
3342	Communications equipment mfg	-	2	1	g	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	-	28	19	h	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	-	28	19	h	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) mfg	-	7	7	g	D	D	D	D	D	D	D	D
334419	Other electronic component mfg	-	9	5	669	14 375	532	1 071	7 805	24 055	20 684	45 135	1 029
335	Electrical equipment, appliance, & component mfg	-	24	15	2 700	77 907	2 024	4 378	47 462	240 504	271 200	507 680	13 760
3351	Electric lighting equipment mfg	-	9	6	943	26 139	708	1 448	16 833	100 640	71 851	167 217	D
33512	Lighting fixture mfg	-	8	6	f	D	D	D	D	D	D	D	D
335122	Commercial/industrial/institutional electric lighting fixture mfg ...	-	3	3	f	D	D	D	D	D	D	D	D
3359	Other electrical equipment & component mfg	-	7	6	g	D	D	D	D	D	D	D	D
33592	Communication & energy wire & cable mfg	-	3	3	634	19 666	426	978	9 821	77 478	108 464	184 803	D
335929	Other communication & energy wire mfg ...	-	3	3	634	19 666	426	978	9 821	77 478	108 464	184 803	D
33599	All other electrical equipment & component mfg	-	1	1	f	D	D	D	D	D	D	D	D
335999	All other miscellaneous electrical equipment & component mfg	-	1	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	-	21	7	h	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	-	6	2	h	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts mfg	-	2	2	h	D	D	D	D	D	D	D	D
336399	Other motor vehicle parts mfg	-	2	2	h	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	-	133	55	8 137	277 424	5 519	11 423	152 332	866 469	428 223	1 327 583	62 780
3391	Medical equipment & supplies mfg	-	32	14	2 413	99 017	1 187	2 328	33 714	315 164	100 763	408 455	25 450
33911	Medical equipment & supplies mfg	-	32	14	2 413	99 017	1 187	2 328	33 714	315 164	100 763	408 455	25 450
339112	Surgical & medical instrument mfg	1	11	8	1 281	44 640	836	1 667	20 282	144 980	51 543	197 817	D
339113	Surgical appliance & supplies mfg	-	5	4	g	D	D	D	D	D	D	D	D
3399	Other miscellaneous mfg ..	-	101	41	5 724	178 407	4 332	9 095	118 618	551 305	327 460	919 128	37 330

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	BRISTOL COUNTY, MA—Con.												
31-33	Manufacturing—Con.												
339	Miscellaneous mfg—Con.												
3399	Other miscellaneous mfg—Con.												
33991	Jewelry & silverware mfg	—	68	29	3 634	97 835	2 611	5 349	55 675	231 533	218 627	462 870	9 205
339911	Jewelry (except costume) mfg	1	30	15	1 237	34 098	967	1 854	20 411	117 109	87 633	204 854	2 390
339912	Silverware & plated ware mfg	—	7	4	f	D	D	D	D	D	D	D	D
339913	Jewelers' material & lapidary work mfg	—	10	4	818	25 545	505	1 137	12 215	42 494	76 348	118 348	D
339914	Costume jewelry & novelty mfg	—	21	6	g	D	D	D	D	D	D	D	1 426
33992	Sporting & athletic goods mfg	—	4	1	g	D	D	D	D	D	D	D	D
339920	Sporting & athletic goods mfg	—	4	1	g	D	D	D	D	D	D	D	D
33999	All other miscellaneous mfg	6	11	4	531	18 035	373	704	10 427	31 535	17 316	48 844	D
	ESSEX COUNTY, MA												
31-33	Manufacturing	—	1 200	419	57 660	2 362 386	36 217	71 302	1 185 625	7 537 492	6 170 272	13 728 137	700 908
311	Food mfg	1	112	31	3 777	100 965	2 134	3 711	48 118	298 636	509 214	805 623	23 202
3115	Dairy product mfg	—	7	4	g	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) mfg	—	3	2	g	D	D	D	D	D	D	D	D
311511	Fluid milk mfg	—	3	2	g	D	D	D	D	D	D	D	D
3117	Seafood product preparation & packaging	—	10	5	1 010	29 165	650	1 217	17 664	117 593	242 583	359 460	5 054
31171	Seafood product preparation & packaging	—	10	5	1 010	29 165	650	1 217	17 664	117 593	242 583	359 460	5 054
311712	Fresh & frozen seafood processing	—	9	5	g	D	D	D	D	D	D	D	D
3118	Bakeries & tortilla mfg	2	61	10	937	19 873	564	969	9 676	42 593	37 154	79 664	1 962
31181	Bread & bakery product mfg	3	59	9	f	D	D	D	D	D	D	D	D
313	Textile mills	—	15	7	2 280	87 448	1 864	4 113	47 374	225 756	159 729	375 432	D
3133	Textile & fabric finishing & fabric coating mills	—	9	6	g	D	D	D	D	D	D	D	D
31331	Textile & fabric finishing mills	—	6	4	g	D	D	D	D	D	D	D	D
313312	Textile & fabric finishing mills	—	3	2	g	D	D	D	D	D	D	D	D
314	Textile product mills	—	26	6	546	13 605	440	870	9 103	22 910	35 964	58 889	D
315	Apparel mfg	2	17	6	f	D	D	D	D	D	D	D	827
3152	Cut & sew apparel mfg	2	13	5	f	D	D	D	D	D	D	D	D
316	Leather & allied product mfg	1	45	15	1 857	39 362	1 394	2 782	26 635	198 079	131 593	321 087	4 926
3162	Footwear mfg	—	7	4	g	D	D	D	D	D	D	D	D
31621	Footwear mfg	—	7	4	g	D	D	D	D	D	D	D	D
322	Paper mfg	1	23	18	1 422	52 981	1 121	2 398	35 687	111 998	145 018	257 319	13 689
3222	Converted paper product mfg	1	19	15	g	D	D	D	D	D	D	D	D
32221	Paperboard container mfg	2	13	12	678	18 893	548	1 097	13 380	33 282	50 941	83 240	2 413
323	Printing & related support activities	5	114	24	2 079	72 843	1 482	2 916	47 389	131 888	92 444	224 534	12 844
3231	Printing & related support activities	5	114	24	2 079	72 843	1 482	2 916	47 389	131 888	92 444	224 534	12 844
32311	Printing	5	104	22	1 890	64 805	1 357	2 624	42 772	117 128	89 279	206 671	D
323110	Commercial lithographic printing	2	44	10	659	22 074	454	865	14 654	43 373	21 597	64 703	D
323113	Commercial screen printing	8	21	6	814	30 323	633	1 255	21 463	49 656	50 836	100 962	5 566
325	Chemical mfg	—	66	24	3 375	167 081	1 918	4 171	86 818	929 514	580 158	1 476 570	130 235
3254	Pharmaceutical & medicine mfg	—	9	3	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	—	9	3	f	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	—	6	3	f	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, & toilet preparation mfg	—	11	5	g	D	D	D	D	D	D	D	D
32562	Toilet preparation mfg	—	2	2	f	D	D	D	D	D	D	D	D
325620	Toilet preparation mfg	—	2	2	f	D	D	D	D	D	D	D	D
3259	Other chemical product mfg	—	13	5	509	24 849	304	539	12 494	73 952	83 362	159 331	8 443

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	ESSEX COUNTY, MA—Con.												
31-33	Manufacturing—Con.												
326	Plastics & rubber products mfg	3	52	29	2 850	102 965	1 903	4 013	55 240	227 570	213 577	442 282	20 847
3261	Plastics product mfg	3	47	27	2 750	98 992	1 833	3 870	53 062	219 347	209 495	430 029	D
32611	Unsupported plastics film, sheet, & bag mfg ..	4	7	7	1 277	46 634	854	1 777	29 102	104 066	116 167	214 852	10 397
326113	Unsupported plastics film & sheet (except packaging) mfg	4	5	5	g	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	2	29	14	970	32 170	619	1 307	14 699	61 725	47 544	115 333	5 359
326199	All other plastics product mfg	2	29	14	970	32 170	619	1 307	14 699	61 725	47 544	115 333	5 359
327	Nonmetallic mineral product mfg	4	25	9	632	15 681	507	895	10 991	36 685	27 945	63 391	D
332	Fabricated metal product mfg	1	271	76	5 468	197 884	3 819	7 769	118 049	409 992	255 886	666 482	38 179
3323	Architectural & structural metals mfg	1	43	16	766	25 961	531	1 054	15 611	56 881	41 452	98 611	4 226
33232	Ornamental & architectural metal products mfg	1	31	12	560	19 216	391	759	11 760	43 084	28 475	71 778	3 589
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	158	36	2 799	107 042	1 980	3 936	62 664	196 279	92 271	288 929	21 151
33271	Machine shops	1	140	27	2 322	89 853	1 620	3 260	52 658	160 589	76 514	237 299	17 152
332710	Machine shops	1	140	27	2 322	89 853	1 620	3 260	52 658	160 589	76 514	237 299	17 152
3328	Coating, engraving, heat treating, & allied activities ..	1	30	11	733	23 231	538	1 209	14 873	52 187	16 171	68 565	5 844
33281	Coating, engraving, heat treating, & allied activities	1	30	11	733	23 231	538	1 209	14 873	52 187	16 171	68 565	5 844
3329	Other fabricated metal product mfg	-	14	5	536	16 972	310	538	8 949	44 627	30 204	73 295	D
333	Machinery mfg	-	94	41	5 581	252 177	2 846	5 696	94 918	701 344	509 353	1 209 955	35 098
3332	Industrial machinery mfg ..	-	31	18	3 802	180 154	1 707	3 571	60 304	535 604	389 713	926 490	26 968
33322	Plastics & rubber industry machinery mfg	-	5	4	740	31 986	347	762	14 271	93 820	71 209	166 428	3 865
333220	Plastics & rubber industry machinery mfg	-	5	4	740	31 986	347	762	14 271	93 820	71 209	166 428	3 865
33329	Other industrial machinery mfg	-	26	14	3 062	148 168	1 360	2 809	46 033	441 784	318 504	760 062	23 103
333295	Semiconductor machinery mfg	-	9	5	2 560	131 891	1 090	2 305	38 872	402 897	285 321	687 587	20 772
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	3	11	6	528	22 268	352	713	11 976	46 343	45 944	93 817	2 693
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg ..	3	11	6	528	22 268	352	713	11 976	46 343	45 944	93 817	2 693
3339	Other general-purpose machinery mfg	-	19	7	736	27 328	436	720	11 018	74 287	45 734	117 353	2 066
334	Computer & electronic product mfg	-	128	74	15 897	744 630	9 500	18 321	339 091	2 939 162	1 956 705	4 927 389	156 872
3342	Communications equipment mfg	-	16	10	h	D	D	D	D	D	D	D	65 759
33421	Telephone apparatus mfg	-	3	2	h	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	-	3	2	h	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	1	71	41	4 959	176 081	3 478	6 986	96 012	371 412	227 195	597 741	46 294
33441	Semiconductor & other electronic component mfg	1	71	41	4 959	176 081	3 478	6 986	96 012	371 412	227 195	597 741	46 294
334411	Electron tube mfg	-	3	2	f	D	D	D	D	D	D	D	D
334412	Bare printed circuit board mfg	1	16	10	1 274	41 208	1 027	2 065	27 722	76 142	55 667	133 018	9 272
334413	Semiconductor & related device mfg ...	7	18	8	564	23 363	344	644	9 657	58 508	25 700	84 447	15 751
334419	Other electronic component mfg	-	21	11	1 937	67 811	1 284	2 672	34 945	132 942	106 745	239 307	15 974

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	ESSEX COUNTY, MA—Con.												
31-33	Manufacturing—Con.												
334	Computer & electronic product mfg—Con.												
3345	Navigational, measuring, medical, & control instruments mfg	-	28	17	5 502	324 063	2 214	5 130	83 747	837 347	580 137	1 430 643	41 717
33451	Navigational, measuring, medical, & control instruments mfg	-	28	17	5 502	324 063	2 214	5 130	83 747	837 347	580 137	1 430 643	41 717
334510	Electromedical & electrotherapeutic apparatus mfg	-	4	4	h	D	D	D	D	D	D	D	D
334513	Industrial process control instrument mfg	-	6	4	f	D	D	D	D	D	D	D	2 971
334517	Irradiation apparatus mfg	-	1	1	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	34	17	3 048	117 862	1 671	3 217	49 961	355 403	222 908	579 927	28 229
3351	Electric lighting equipment mfg	-	3	1	f	D	D	D	D	D	D	D	D
33511	Electric lamp bulb & part mfg	-	1	1	f	D	D	D	D	D	D	D	D
335110	Electric lamp bulb & part mfg	-	1	1	f	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	10	4	1 666	72 815	627	1 241	19 661	203 383	124 740	329 820	17 115
33531	Electrical equipment mfg	-	10	4	1 666	72 815	627	1 241	19 661	203 383	124 740	329 820	17 115
335314	Relay & industrial control mfg	-	6	3	g	D	D	D	D	D	D	D	D
3359	Other electrical equipment & component mfg	1	17	10	606	18 771	393	769	9 973	41 360	34 736	75 273	D
336	Transportation equipment mfg	-	27	9	i	D	D	D	D	D	D	D	53 174
3364	Aerospace product & parts mfg	-	8	6	h	D	D	D	D	D	D	D	D
33641	Aerospace product & parts mfg	-	8	6	h	D	D	D	D	D	D	D	D
336412	Aircraft engine & engine parts mfg	-	6	6	h	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	1	76	20	2 119	67 528	1 259	2 375	29 348	180 309	124 921	321 095	9 700
3391	Medical equipment & supplies mfg	1	33	9	1 113	34 075	686	1 232	15 041	77 684	66 484	157 511	5 875
33911	Medical equipment & supplies mfg	1	33	9	1 113	34 075	686	1 232	15 041	77 684	66 484	157 511	5 875
339112	Surgical & medical instrument mfg	-	6	4	724	21 112	432	769	8 326	50 613	37 998	100 160	3 705
3399	Other miscellaneous mfg ..	1	43	11	1 006	33 453	573	1 143	14 307	102 625	58 437	163 584	3 825
33999	All other miscellaneous mfg	-	18	9	795	28 033	437	905	11 883	89 743	48 409	141 099	2 818
339991	Gasket, packing, & sealing device mfg ...	-	7	5	611	23 706	293	611	9 025	80 175	43 306	126 915	D
	FRANKLIN COUNTY, MA												
31-33	Manufacturing	1	119	52	5 700	182 168	3 763	7 387	108 672	414 490	345 782	755 966	47 208
326	Plastics & rubber products mfg	1	11	8	860	32 351	679	1 511	23 008	98 456	102 910	199 539	12 432
3261	Plastics product mfg	1	11	8	860	32 351	679	1 511	23 008	98 456	102 910	199 539	12 432
332	Fabricated metal product mfg	-	16	9	940	28 638	742	1 553	19 434	77 817	30 990	107 457	D
3322	Cutlery & handtool mfg	-	4	3	505	14 911	422	908	11 544	41 635	15 115	54 809	D
33221	Cutlery & handtool mfg ..	-	4	3	505	14 911	422	908	11 544	41 635	15 115	54 809	D
339	Miscellaneous mfg	-	9	5	g	D	D	D	D	D	D	D	D
3399	Other miscellaneous mfg ..	-	9	5	g	D	D	D	D	D	D	D	D
33999	All other miscellaneous mfg	-	3	2	g	D	D	D	D	D	D	D	D
339999	All other miscellaneous mfg	-	3	2	g	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
HAMPDEN COUNTY, MA													
31-33	Manufacturing	-	802	291	33 350	1 204 017	22 875	47 230	659 230	3 213 820	2 793 108	5 953 472	206 894
311	Food mfg	-	38	14	2 145	81 427	1 145	2 512	25 551	163 021	329 207	493 996	12 526
3115	Dairy product mfg	-	5	4	1 283	63 226	518	1 091	15 061	90 574	231 244	321 726	D
31152	Ice cream & frozen dessert mfg	-	2	1	f	D	D	D	D	D	D	D	D
311520	Ice cream & frozen dessert mfg	-	2	1	f	D	D	D	D	D	D	D	D
3116	Meat product mfg	-	7	5	558	13 105	446	1 168	7 848	59 216	87 874	148 919	3 361
31161	Animal slaughtering & processing	-	7	5	558	13 105	446	1 168	7 848	59 216	87 874	148 919	3 361
313	Textile mills	-	10	5	628	20 546	481	1 108	13 372	57 368	55 778	116 850	D
322	Paper mfg	-	55	40	4 731	158 328	3 466	7 340	98 370	486 506	567 643	1 014 436	35 453
3221	Pulp, paper, & paperboard mills	-	6	6	616	22 217	450	828	13 925	71 962	62 298	142 742	D
3222	Converted paper product mfg	-	49	34	4 115	136 111	3 016	6 512	84 445	414 544	505 345	871 694	D
32221	Paperboard container mfg	-	21	16	1 332	44 551	974	2 012	26 914	85 496	97 977	181 878	9 379
322211	Corrugated & solid fiber box mfg	-	7	6	658	24 243	441	903	12 080	40 991	50 377	90 706	2 141
32222	Paper bag & coated & treated paper mfg	-	11	8	826	36 006	581	1 383	18 587	97 171	179 429	276 433	15 493
322222	Coated & laminated paper mfg	-	8	5	511	21 393	349	742	10 181	37 074	55 662	93 087	2 390
32223	Stationery product mfg	-	14	7	1 541	41 900	1 114	2 314	28 975	207 125	210 466	371 154	D
322232	Envelope mfg	-	4	2	f	D	D	D	D	D	D	D	D
322233	Stationery, tablet, & related product mfg	-	6	3	645	16 174	366	699	7 852	121 836	73 360	174 802	D
323	Printing & related support activities	1	93	29	3 134	96 413	2 414	4 834	61 503	260 384	195 157	455 175	21 877
3231	Printing & related support activities	1	93	29	3 134	96 413	2 414	4 834	61 503	260 384	195 157	455 175	21 877
32311	Printing	1	74	26	2 827	87 309	2 184	4 483	55 707	244 912	190 270	434 902	20 086
323110	Commercial lithographic printing	1	28	13	1 380	45 360	1 032	2 065	26 801	96 025	101 980	197 064	14 083
323118	Blankbook, looseleaf binder, & device mfg	-	4	4	f	D	D	D	D	D	D	D	D
325	Chemical mfg	2	19	12	1 147	45 182	693	1 549	18 949	136 435	189 287	334 257	11 598
3259	Other chemical product mfg	3	8	4	722	23 422	488	1 135	10 502	71 252	60 503	134 263	2 900
32599	All other chemical product & preparation mfg	3	7	4	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	1	50	27	2 580	106 877	1 810	3 621	58 978	258 160	228 880	481 935	25 702
3261	Plastics product mfg	1	47	26	2 483	104 432	1 750	3 501	57 466	256 438	223 875	475 280	D
32611	Unsupported plastics film, sheet, & bag mfg	-	9	7	1 098	65 483	680	1 420	34 720	163 734	140 864	300 739	13 397
326113	Unsupported plastics film & sheet (except packaging) mfg	-	5	4	f	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	2	31	17	g	D	D	D	D	D	D	D	9 479
326199	All other plastics product mfg	2	30	16	g	D	D	D	D	D	D	D	D
331	Primary metal mfg	3	18	11	891	28 716	704	1 566	20 073	62 521	78 583	143 689	9 708
332	Fabricated metal product mfg	-	224	65	7 327	290 210	5 024	10 213	169 501	663 041	341 433	1 001 240	36 139
3322	Cutlery & handtool mfg	-	10	5	1 128	51 673	731	1 907	31 656	177 174	72 693	249 081	D
33221	Cutlery & handtool mfg	-	10	5	1 128	51 673	731	1 907	31 656	177 174	72 693	249 081	D
332213	Saw blade & handsaw mfg	-	2	2	f	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg	1	24	9	615	19 363	493	848	12 809	34 064	24 501	57 947	D
33232	Ornamental & architectural metal products mfg	-	22	8	f	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	115	20	1 789	73 338	1 241	2 699	46 892	137 712	58 274	193 589	14 800
33271	Machine shops	2	99	17	1 479	62 619	1 036	2 250	40 011	115 750	49 555	163 120	10 527
332710	Machine shops	2	99	17	1 479	62 619	1 036	2 250	40 011	115 750	49 555	163 120	10 527
3328	Coating, engraving, heat treating, & allied activities	2	31	13	739	28 514	525	1 123	15 246	47 873	15 077	63 066	D
33281	Coating, engraving, heat treating, & allied activities	2	31	13	739	28 514	525	1 123	15 246	47 873	15 077	63 066	D
332813	Electroplating, plating, polishing, anodizing, & coloring	2	18	8	548	21 750	384	844	11 172	34 779	10 124	44 988	2 023

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31-33	HAMPDEN COUNTY, MA—Con.												
	Manufacturing—Con.												
332	Fabricated metal product mfg—Con.												
3329	Other fabricated metal product mfg.....	-	23	8	2 301	91 729	1 516	2 653	48 733	210 623	121 576	332 978	D
33291	Metal valve mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
332912	Fluid power valve & hose fitting mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg.....	-	22	7	g	D	D	D	D	D	D	D	5 622
332994	Small arms mfg.....	-	2	2	g	D	D	D	D	D	D	D	D
332999	All other miscellaneous fabricated metal product mfg.....	-	11	5	f	D	D	D	D	D	D	D	5 057
333	Machinery mfg.....	1	97	36	3 184	125 968	1 771	3 558	55 475	296 233	296 734	585 246	14 045
3332	Industrial machinery mfg ..	2	17	9	579	23 077	333	687	10 618	50 935	32 574	83 848	1 161
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg.....	-	3	3	527	18 026	239	523	6 234	30 745	26 625	58 506	1 683
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg ..	-	3	3	527	18 026	239	523	6 234	30 745	26 625	58 506	1 683
333414	Heating equipment (except warm air furnaces) mfg.....	-	3	3	527	18 026	239	523	6 234	30 745	26 625	58 506	1 683
3335	Metalworking machinery mfg.....	5	43	13	755	30 521	546	1 112	18 563	50 133	29 694	78 577	3 649
33351	Metalworking machinery mfg.....	5	43	13	755	30 521	546	1 112	18 563	50 133	29 694	78 577	3 649
334	Computer & electronic product mfg.....	1	24	10	904	29 146	540	1 071	12 289	61 672	62 284	123 928	2 706
3344	Semiconductor & other electronic component mfg.....	-	14	8	f	D	D	D	D	D	D	D	1 517
33441	Semiconductor & other electronic component mfg.....	-	14	8	f	D	D	D	D	D	D	D	1 517
335	Electrical equipment, appliance, & component mfg.....	1	6	4	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg.....	-	51	15	4 367	157 002	3 002	6 209	82 830	609 565	298 414	893 638	25 436
3399	Other miscellaneous mfg ..	-	31	12	h	D	D	D	D	D	D	D	25 130
33992	Sporting & athletic goods mfg.....	-	4	1	f	D	D	D	D	D	D	D	D
339920	Sporting & athletic goods mfg.....	-	4	1	f	D	D	D	D	D	D	D	D
33993	Doll, toy, & game mfg ...	-	7	5	2 722	95 109	1 994	4 193	52 164	359 849	150 398	509 022	D
339932	Game, toy, & children's vehicle mfg.....	-	7	5	2 722	95 109	1 994	4 193	52 164	359 849	150 398	509 022	D
31-33	HAMPSHIRE COUNTY, MA		180	58	5 760	192 286	3 985	7 832	108 144	493 686	554 460	1 048 267	27 634
322	Paper mfg.....	-	8	4	596	23 099	346	741	11 453	79 687	117 059	194 257	4 113
3222	Converted paper product mfg.....	-	8	4	596	23 099	346	741	11 453	79 687	117 059	194 257	4 113
325	Chemical mfg.....	-	5	3	f	D	D	D	D	D	D	D	D
3259	Other chemical product mfg.....	-	2	1	f	D	D	D	D	D	D	D	D
32599	All other chemical product & preparation mfg.....	-	2	1	f	D	D	D	D	D	D	D	D
325992	Photographic film, paper, plate, & chemical mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg.....	1	11	6	1 284	37 122	1 045	1 980	26 090	76 590	48 836	125 944	4 641
3261	Plastics product mfg.....	1	9	6	g	D	D	D	D	D	D	D	D
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
326121	Unsupported plastics profile shape mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
333	Machinery mfg.....	1	19	8	545	23 174	314	573	10 847	53 740	31 936	84 469	2 183

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		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)					Wages (\$1,000)
MIDDLESEX COUNTY, MA													
31-33	Manufacturing	1	2 437	850	118 002	5 216 534	61 016	125 379	1 998 793	13 888 810	8 793 110	22 587 129	1 029 784
311	Food mfg	—	177	53	5 271	150 817	3 569	6 872	89 336	795 175	618 366	1 418 630	44 700
3113	Sugar & confectionery product mfg	—	12	6	756	19 210	624	1 230	13 622	109 264	65 566	175 560	D
3118	Bakeries & tortilla mfg	—	110	24	2 274	59 719	1 558	2 694	38 933	285 252	112 332	407 386	19 354
31181	Bread & bakery product mfg	—	104	23	2 094	53 257	1 438	2 457	36 492	254 752	92 963	347 450	19 096
311811	Retail bakeries	4	70	7	660	8 574	362	502	4 529	17 783	9 045	26 855	737
311812	Commercial bakeries	—	28	14	1 362	43 425	1 015	1 866	31 100	233 656	81 579	314 933	18 196
3119	Other food mfg	—	21	13	1 147	37 324	717	1 524	16 669	218 883	238 415	452 632	11 178
31194	Seasoning & dressing mfg	—	5	4	f	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	3	12	5	999	40 281	467	1 049	17 558	193 194	264 329	463 067	D
3121	Beverage mfg	3	12	5	999	40 281	467	1 049	17 558	193 194	264 329	463 067	D
31211	Soft drink & ice mfg	—	5	4	f	D	D	D	D	D	D	D	D
312111	Soft drink mfg	—	3	3	f	D	D	D	D	D	D	D	7 437
313	Textile mills	—	23	14	1 286	44 212	1 022	2 299	29 029	104 652	121 743	226 685	9 708
3133	Textile & fabric finishing & fabric coating mills	—	14	7	781	30 193	567	1 318	17 416	75 456	78 200	153 795	D
31332	Fabric coating mills	—	8	6	633	26 736	441	1 062	14 707	70 712	73 914	144 760	D
313320	Fabric coating mills	—	8	6	633	26 736	441	1 062	14 707	70 712	73 914	144 760	D
314	Textile product mills	2	41	6	516	10 142	415	778	6 784	22 012	22 847	46 340	671
315	Apparel mfg	4	35	8	834	16 155	692	1 262	10 027	28 776	39 483	69 759	705
3152	Cut & sew apparel mfg	5	22	6	685	12 119	592	1 082	8 337	23 000	24 860	47 158	502
322	Paper mfg	—	45	32	3 245	123 117	2 283	5 373	76 864	305 273	303 787	611 733	13 041
3222	Converted paper product mfg	—	42	29	2 874	107 166	2 016	4 769	65 065	240 795	243 728	486 785	8 972
32221	Paperboard container mfg	—	19	15	1 129	40 391	843	1 954	26 856	79 266	120 124	199 840	4 269
322211	Corrugated & solid fiber box mfg	—	8	6	500	18 022	348	745	10 345	33 268	55 684	88 767	1 072
32222	Paper bag & coated & treated paper mfg	—	11	7	895	38 472	566	1 321	20 744	104 026	85 457	190 839	3 222
322222	Coated & laminated paper mfg	—	9	5	f	D	D	D	D	D	D	D	D
32223	Stationery product mfg	—	7	3	618	21 836	429	1 112	13 044	41 526	22 379	63 605	330
322231	Die-cut paper & paperboard office supplies mfg	—	4	2	f	D	D	D	D	D	D	D	D
323	Printing & related support activities	2	314	68	6 490	256 771	4 608	9 680	156 107	563 823	310 197	876 019	31 794
3231	Printing & related support activities	2	314	68	6 490	256 771	4 608	9 680	156 107	563 823	310 197	876 019	31 794
32311	Printing	2	280	57	6 036	238 627	4 248	8 915	143 056	534 141	297 292	833 443	29 343
323110	Commercial lithographic printing	2	131	35	3 350	150 556	2 265	4 866	85 811	292 348	174 173	467 868	17 961
323117	Book printing	5	9	7	1 172	37 801	935	1 970	26 706	83 039	134 299	5 768	5 768
325	Chemical mfg	—	110	45	7 023	364 175	3 504	7 144	128 367	1 022 764	742 188	1 786 221	91 380
3254	Pharmaceutical & medicine mfg	—	29	17	2 106	102 170	1 066	2 119	35 388	524 073	136 522	660 723	31 958
32541	Pharmaceutical & medicine mfg	—	29	17	2 106	102 170	1 066	2 119	35 388	524 073	136 522	660 723	31 958
325412	Pharmaceutical preparation mfg	—	11	5	1 154	66 291	458	1 016	20 949	337 747	61 272	395 044	17 932
3255	Paint, coating, & adhesive mfg	2	23	8	603	24 724	271	534	8 923	68 330	66 229	134 784	1 873
3259	Other chemical product mfg	—	23	12	3 763	213 888	1 920	3 997	76 095	343 827	452 466	817 090	51 076
32599	All other chemical product & preparation mfg	—	14	8	3 480	203 997	1 753	3 692	70 934	327 928	422 272	770 854	50 139
325992	Photographic film, paper, plate, & chemical mfg	—	3	1	g	D	D	D	D	D	D	D	D
325998	All other miscellaneous chemical product & preparation mfg	—	7	4	g	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	2	82	34	3 146	100 470	2 453	4 979	64 610	273 850	203 292	477 600	20 497
3261	Plastics product mfg	2	72	33	3 028	96 450	2 370	4 826	62 361	264 312	190 969	455 970	20 155
32611	Unsupported plastics film, sheet, & bag mfg	—	11	7	545	20 920	393	738	11 700	73 280	48 830	122 189	4 426
32619	Other plastics product mfg	2	48	23	1 931	60 013	1 544	3 157	41 289	161 860	116 579	279 084	13 649
326199	All other plastics product mfg	2	46	23	g	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	4	52	14	1 027	40 370	706	1 243	19 221	83 670	70 583	154 133	5 901

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MIDDLESEX COUNTY, MA—Con.												
	Manufacturing—Con.												
331	Primary metal mfg	—	24	8	1 035	34 133	729	1 600	19 621	130 690	166 044	257 388	6 879
3315	Foundries	2	18	4	f	D	D	D	D	D	D	D	D
33152	Nonferrous metal foundries	1	12	3	502	13 493	398	918	8 205	53 592	15 010	68 247	D
332	Fabricated metal product mfg	1	417	120	8 802	337 571	5 854	11 511	172 660	736 141	373 671	1 109 554	48 153
3323	Architectural & structural metals mfg	—	79	34	1 879	65 077	1 382	2 604	38 656	127 507	82 297	209 893	6 737
33232	Ornamental & architectural metal products mfg	—	59	26	1 497	51 338	1 101	1 979	29 569	96 010	58 653	154 781	5 671
332322	Sheet metal work mfg	—	43	22	1 141	40 581	895	1 582	24 460	76 152	43 024	119 296	4 305
3327	Machine shops, turned product, & screw, nut, & bolt mfg	2	201	37	2 678	99 095	2 088	4 073	66 093	187 779	71 315	257 761	18 025
33271	Machine shops	2	166	24	1 785	66 294	1 373	2 591	44 768	120 784	48 333	169 301	11 105
332710	Machine shops	2	166	24	1 785	66 294	1 373	2 591	44 768	120 784	48 333	169 301	11 105
33272	Turned product & screw, nut, & bolt mfg	3	35	13	893	32 801	715	1 482	21 325	66 995	22 982	88 460	6 920
332721	Precision turned product mfg	3	30	12	826	30 402	662	1 374	19 697	62 513	20 184	81 149	D
3328	Coating, engraving, heat treating, & allied activities	2	57	22	1 245	41 565	915	2 095	24 757	82 045	23 456	105 858	4 530
33281	Coating, engraving, heat treating, & allied activities	2	57	22	1 245	41 565	915	2 095	24 757	82 045	23 456	105 858	4 530
332812	Metal coating engraving (exc jewelry/silverware)/ allied services	3	30	9	570	18 016	412	1 027	10 103	38 230	9 251	47 644	D
332813	Electroplating, plating, polishing, anodizing, & coloring	—	22	12	605	20 793	453	941	12 776	36 557	11 533	48 277	2 186
3329	Other fabricated metal product mfg	—	32	9	1 795	89 119	645	1 037	19 457	236 543	122 385	358 550	14 558
33299	All other fabricated metal product mfg	—	28	7	g	D	D	D	D	D	D	D	14 195
332993	Ammunition (except small arms) mfg	—	5	5	1 465	79 261	425	667	14 144	214 458	108 976	322 828	D
333	Machinery mfg	2	196	76	8 778	408 227	4 658	9 508	174 057	908 096	762 620	1 681 106	80 842
3332	Industrial machinery mfg	4	49	21	4 279	220 450	1 997	4 359	82 802	465 011	407 101	874 043	48 486
33329	Other industrial machinery mfg	4	44	21	h	D	D	D	D	D	D	D	48 406
333293	Printing machinery & equipment mfg	1	6	4	897	40 652	455	1 079	14 993	74 621	60 649	134 663	D
333295	Semiconductor machinery mfg	5	10	9	g	D	D	D	D	D	D	D	15 637
333298	All other industrial machinery mfg	—	22	6	1 013	50 550	332	673	14 833	110 618	50 664	162 082	D
3333	Commercial & service industry machinery mfg	2	40	20	1 649	62 950	946	1 817	28 928	138 136	72 415	210 002	9 524
33331	Commercial & service industry machinery mfg	2	40	20	1 649	62 950	946	1 817	28 928	138 136	72 415	210 002	9 524
333314	Optical instrument & lens mfg	1	21	11	1 064	39 501	611	1 192	19 499	98 272	37 633	135 332	7 819
3339	Other general-purpose machinery mfg	—	57	24	2 170	95 081	1 270	2 455	46 138	260 415	239 710	507 658	19 696
33399	All other general-purpose machinery mfg	—	48	19	1 640	74 643	985	1 814	36 765	200 518	152 232	359 398	15 827
333999	All other miscellaneous general-purpose machinery mfg	—	31	11	845	35 855	513	859	19 589	124 349	68 929	195 689	9 249
334	Computer & electronic product mfg	—	453	243	55 332	2 720 475	21 861	45 781	815 196	7 433 638	3 825 348	11 150 941	594 037
3341	Computer & peripheral equipment mfg	—	57	31	4 997	293 641	1 789	3 932	93 777	1 137 998	775 865	1 902 263	59 333
33411	Computer & peripheral equipment mfg	—	57	31	4 997	293 641	1 789	3 932	93 777	1 137 998	775 865	1 902 263	59 333
334111	Electronic computer mfg	—	12	6	g	D	D	D	D	D	D	D	D
334113	Computer terminal mfg	—	6	3	f	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment mfg	1	35	20	2 884	169 118	1 470	3 234	81 668	526 926	515 061	1 039 762	30 585

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	MIDDLESEX COUNTY, MA—Con.												
	Manufacturing—Con.												
334	Computer & electronic product mfg—Con.												
3342	Communications equipment mfg	—	59	33	8 708	419 971	3 320	6 204	125 604	1 205 029	615 819	1 795 763	125 752
33421	Telephone apparatus mfg	—	20	12	5 094	277 854	1 807	3 284	75 926	889 648	442 662	1 318 013	86 149
334210	Telephone apparatus mfg	—	20	12	5 094	277 854	1 807	3 284	75 926	889 648	442 662	1 318 013	86 149
33422	Radio & TV broadcasting & wireless communications equipment mfg	1	26	16	h	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	1	26	16	h	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	1	163	88	15 744	627 001	8 415	17 622	228 649	1 910 356	946 013	2 843 848	267 143
33441	Semiconductor & other electronic component mfg	1	163	88	15 744	627 001	8 415	17 622	228 649	1 910 356	946 013	2 843 848	267 143
334412	Bare printed circuit board mfg	1	27	13	1 449	47 678	862	1 906	21 195	127 846	63 820	186 604	6 845
334413	Semiconductor & related device mfg ...	—	38	24	7 179	310 069	3 608	6 680	108 878	1 080 292	373 155	1 447 820	203 176
334418	Printed circuit assembly (electronic assembly) mfg	1	37	29	4 215	169 666	2 273	5 390	55 963	489 219	372 889	863 998	43 351
334419	Other electronic component mfg	3	37	12	2 128	73 946	1 100	2 372	27 486	141 559	100 913	245 751	11 666
3345	Navigational, measuring, medical, & control instruments mfg	—	150	84	25 140	1 355 535	7 835	16 933	352 356	3 102 929	1 391 185	4 435 065	127 094
33451	Navigational, measuring, medical, & control instruments mfg	—	150	84	25 140	1 355 535	7 835	16 933	352 356	3 102 929	1 391 185	4 435 065	127 094
334510	Electromedical & electrotherapeutic apparatus mfg	1	15	7	f	D	D	D	D	D	D	D	6 607
334511	Search, detection, navigation, & guidance instrument mfg	—	14	8	j	D	D	D	D	D	D	D	D
334513	Industrial process control instrument mfg	—	24	14	1 725	82 232	440	921	13 527	300 966	82 333	380 130	12 668
334515	Electricity measuring & testing instrument mfg	1	22	16	2 392	117 052	927	1 573	34 655	301 202	151 667	449 619	22 652
334516	Analytical laboratory instrument mfg	—	37	17	2 485	118 883	829	1 717	29 710	176 979	119 971	293 886	10 057
334517	Irradiation apparatus mfg	—	6	4	f	D	D	D	D	D	D	D	D
334519	Other measuring & controlling device mfg	—	27	14	1 329	60 935	787	1 523	29 796	130 725	68 604	205 573	5 110
3346	Mfg & reproducing magnetic & optical media .	2	17	4	517	17 567	351	787	11 728	63 774	73 656	137 152	13 969
33461	Mfg & reproducing magnetic & optical media	2	17	4	517	17 567	351	787	11 728	63 774	73 656	137 152	13 969
335	Electrical equipment, appliance, & component mfg	3	67	32	3 109	122 092	1 795	3 626	51 004	255 150	262 644	520 527	15 354
3353	Electrical equipment mfg ..	2	27	11	986	41 162	511	941	13 128	85 950	65 198	151 676	3 778
33531	Electrical equipment mfg	2	27	11	986	41 162	511	941	13 128	85 950	65 198	151 676	3 778
335314	Relay & industrial control mfg	2	18	9	834	36 756	412	770	10 916	75 251	55 244	130 760	3 356
3359	Other electrical equipment & component mfg	3	33	17	1 731	69 001	993	2 144	29 802	139 658	150 623	292 139	10 370
33593	Wiring device mfg	—	9	3	f	D	D	D	D	D	D	D	D
33599	All other electrical equipment & component mfg	4	19	10	966	41 295	433	935	13 203	106 613	107 293	215 790	7 024
335999	All other miscellaneous electrical equipment & component mfg	4	18	10	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	4	47	18	1 689	58 738	1 185	2 523	36 317	109 396	112 559	222 675	7 758
3364	Aerospace product & parts mfg	2	8	6	f	D	D	D	D	D	D	D	D
33641	Aerospace product & parts mfg	2	8	6	f	D	D	D	D	D	D	D	D
336412	Aircraft engine & engine parts mfg	2	6	6	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
MIDDLESEX COUNTY, MA—Con.													
31-33	Manufacturing—Con.												
337	Furniture & related product mfg	2	71	10	1 260	37 726	927	1 810	21 696	74 291	69 212	145 148	4 450
3371	Household & institutional furniture & kitchen cabinet mfg	1	58	6	860	25 966	632	1 202	15 026	57 970	42 882	101 350	2 429
33712	Household & institutional furniture mfg	1	28	6	731	22 558	520	1 008	12 449	46 871	37 599	84 893	2 224
339	Miscellaneous mfg	1	217	55	7 438	329 922	3 732	7 190	95 791	797 704	462 958	1 257 585	40 763
3391	Medical equipment & supplies mfg	1	122	36	4 926	246 300	2 207	4 330	58 378	572 898	278 279	849 410	31 632
33911	Medical equipment & supplies mfg	1	122	36	4 926	246 300	2 207	4 330	58 378	572 898	278 279	849 410	31 632
339112	Surgical & medical instrument mfg	1	51	21	3 731	199 122	1 671	3 406	42 061	457 153	234 716	689 553	27 086
3399	Other miscellaneous mfg ..	1	95	19	2 512	83 622	1 525	2 860	37 413	224 806	184 679	408 175	9 131
33999	All other miscellaneous mfg	1	35	13	1 878	67 222	1 080	2 053	29 286	183 303	150 679	331 682	8 046
339991	Gasket, packing, & sealing device mfg...	1	6	5	794	30 075	420	803	13 006	88 884	51 735	139 405	4 639
339999	All other miscellaneous mfg	—	20	3	699	26 189	396	746	10 932	70 493	78 278	147 878	2 484
NORFOLK COUNTY, MA													
31-33	Manufacturing	1	863	317	36 648	1 515 211	22 383	45 580	747 216	3 662 636	2 876 498	6 528 358	260 845
311	Food mfg	—	50	9	1 425	44 558	1 059	2 171	33 703	104 158	233 363	338 732	7 937
3115	Dairy product mfg	—	3	3	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) mfg	—	3	3	f	D	D	D	D	D	D	D	D
311511	Fluid milk mfg	—	3	3	f	D	D	D	D	D	D	D	D
313	Textile mills	4	15	9	650	21 299	420	924	11 125	62 146	60 303	121 919	D
3132	Fabric mills	6	9	7	517	17 033	361	797	9 529	34 568	39 940	72 501	D
322	Paper mfg	—	18	14	1 314	54 298	899	2 040	29 001	122 211	135 908	259 426	D
3222	Converted paper product mfg	—	17	13	g	D	D	D	D	D	D	D	D
32222	Paper bag & coated & treated paper mfg	—	3	3	515	23 067	319	748	12 630	52 404	44 509	99 288	D
322222	Coated & laminated paper mfg	—	3	3	515	23 067	319	748	12 630	52 404	44 509	99 288	D
323	Printing & related support activities	2	129	28	2 381	80 664	1 717	3 217	52 571	147 831	100 315	250 984	9 242
3231	Printing & related support activities	2	129	28	2 381	80 664	1 717	3 217	52 571	147 831	100 315	250 984	9 242
32311	Printing	2	110	24	2 117	71 920	1 514	2 841	45 929	135 763	95 855	231 999	7 514
323110	Commercial lithographic printing ..	3	54	15	1 330	43 636	939	1 725	28 006	83 296	58 325	141 935	4 953
325	Chemical mfg	1	36	18	2 115	90 634	943	2 089	40 004	238 525	251 018	485 962	27 135
3254	Pharmaceutical & medicine mfg	—	8	5	1 460	64 117	618	1 428	29 481	164 957	148 538	309 708	21 836
32541	Pharmaceutical & medicine mfg	—	8	5	1 460	64 117	618	1 428	29 481	164 957	148 538	309 708	21 836
325413	In-vitro diagnostic substance mfg	—	2	2	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	1	27	17	819	28 958	575	1 162	15 755	87 349	101 885	188 578	D
3261	Plastics product mfg	1	20	12	611	20 748	440	881	11 701	62 025	72 728	134 213	D
331	Primary metal mfg	6	10	6	573	18 167	471	1 021	13 392	41 920	45 576	88 008	3 810
332	Fabricated metal product mfg	—	162	58	4 508	187 257	3 182	6 255	107 295	375 221	235 618	603 153	23 121
3323	Architectural & structural metals mfg	—	44	20	1 207	43 917	836	1 543	25 968	71 859	53 154	124 615	2 442
33232	Ornamental & architectural metal products mfg	—	38	16	1 084	39 794	759	1 384	24 069	62 186	45 675	107 363	2 144
332322	Sheet metal work mfg ..	—	26	12	783	30 988	555	975	19 001	48 447	28 705	76 803	1 844
3327	Machine shops, turned product, & screw, nut, & bolt mfg	—	53	13	983	43 137	743	1 537	25 370	74 216	63 026	136 219	D
33271	Machine shops	1	44	7	622	24 944	444	865	15 287	43 947	48 687	93 238	6 111
332710	Machine shops	1	44	7	622	24 944	444	865	15 287	43 947	48 687	93 238	6 111
3329	Other fabricated metal product mfg	—	23	7	1 389	67 743	863	1 655	34 153	164 835	79 320	239 248	7 571
33291	Metal valve mfg	—	6	4	1 002	51 582	571	1 135	24 196	122 961	66 194	183 631	5 587
332911	Industrial valve mfg ...	—	2	2	f	D	D	D	D	D	D	D	D

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

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	NORFOLK COUNTY, MA—Con.												
	Manufacturing—Con.												
333	Machinery mfg	3	60	28	3 286	157 592	1 812	3 865	67 220	241 618	264 858	511 527	31 119
3332	Industrial machinery mfg	9	15	4	592	27 638	333	734	13 243	61 010	52 069	113 978	4 152
33329	Other industrial machinery mfg	9	13	4	f	D	D	D	D	D	D	D	D
3333	Commercial & service industry machinery mfg	—	6	2	f	D	D	D	D	D	D	D	D
33331	Commercial & service industry machinery mfg	—	6	2	f	D	D	D	D	D	D	D	D
333315	Photographic & photocopying equipment mfg	—	1	1	f	D	D	D	D	D	D	D	D
3339	Other general-purpose machinery mfg	2	21	15	1 199	55 607	586	1 169	23 272	91 288	102 563	200 013	4 866
33399	All other general-purpose machinery mfg	1	16	11	942	45 144	464	907	18 486	70 822	81 871	158 177	3 613
333999	All other miscellaneous general-purpose machinery mfg	—	10	8	f	D	D	D	D	D	D	D	3 312
334	Computer & electronic product mfg	1	99	50	11 674	563 503	6 442	12 827	254 351	1 383 071	731 995	2 119 940	97 262
3342	Communications equipment mfg	1	10	6	4 048	212 837	2 852	5 866	152 400	466 620	229 152	696 362	22 701
33422	Radio & TV broadcasting & wireless communications equipment mfg	—	6	4	h	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	—	6	4	h	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	—	26	12	1 815	79 156	1 050	2 196	30 590	199 060	100 792	297 479	29 003
33441	Semiconductor & other electronic component mfg	—	26	12	1 815	79 156	1 050	2 196	30 590	199 060	100 792	297 479	29 003
334418	Printed circuit assembly (electronic assembly) mfg	3	5	5	814	27 177	481	899	12 122	34 441	19 291	52 437	680
3345	Navigational, measuring, medical, & control instruments mfg	1	43	27	5 435	250 949	2 437	4 565	66 827	677 949	372 287	1 056 347	43 276
33451	Navigational, measuring, medical, & control instruments mfg	1	43	27	5 435	250 949	2 437	4 565	66 827	677 949	372 287	1 056 347	43 276
334510	Electromedical & electrotherapeutic apparatus mfg	—	4	3	f	D	D	D	D	D	D	D	D
334513	Industrial process control instrument mfg	—	6	4	2 067	96 199	911	1 694	27 580	229 325	120 165	355 462	6 581
334515	Electricity measuring & testing instrument mfg	9	7	4	721	29 803	253	577	8 252	57 499	56 693	114 164	5 952
334516	Analytical laboratory instrument mfg	—	7	4	746	30 933	229	467	6 104	86 775	70 602	162 721	D
334519	Other measuring & controlling device mfg	—	7	6	610	28 242	156	274	4 775	57 956	35 335	94 531	1 806
335	Electrical equipment, appliance, & component mfg	—	27	18	2 476	84 043	1 492	3 191	36 378	300 424	172 244	465 507	13 609
3353	Electrical equipment mfg	—	14	9	1 198	41 824	714	1 655	16 944	174 912	59 903	233 476	D
33531	Electrical equipment mfg	—	14	9	1 198	41 824	714	1 655	16 944	174 912	59 903	233 476	D
335313	Switchgear & switchboard apparatus mfg	—	5	3	722	24 715	480	1 257	11 481	125 657	15 748	141 519	1 318
3359	Other electrical equipment & component mfg	—	10	8	g	D	D	D	D	D	D	D	9 413
33593	Wiring device mfg	—	3	2	f	D	D	D	D	D	D	D	D
335931	Current-carrying wiring device mfg	—	3	2	f	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	1	55	11	849	26 725	626	1 263	17 012	74 430	68 493	143 988	3 991
339	Miscellaneous mfg	3	85	31	2 543	92 059	1 388	2 803	34 856	217 387	139 411	357 868	8 415
3391	Medical equipment & supplies mfg	4	41	14	1 304	51 002	719	1 464	18 174	115 418	56 725	171 859	5 439
33911	Medical equipment & supplies mfg	4	41	14	1 304	51 002	719	1 464	18 174	115 418	56 725	171 859	5 439
339112	Surgical & medical instrument mfg	8	11	6	527	27 508	256	501	8 245	63 657	25 660	88 845	4 042
3399	Other miscellaneous mfg	2	44	17	1 239	41 057	669	1 339	16 682	101 969	82 686	186 009	2 976

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
PLYMOUTH COUNTY, MA													
31-33	Manufacturing	1	613	178	16 063	534 365	10 774	21 422	289 814	1 246 522	959 164	2 210 829	76 910
311	Food mfg.....	2	36	9	680	15 531	470	756	9 485	45 520	44 731	90 176	1 948
316	Leather & allied product mfg .	-	17	6	636	17 580	546	946	10 413	41 710	36 673	82 429	1 563
322	Paper mfg.....	-	8	4	533	18 241	439	880	9 940	57 896	39 211	94 690	2 228
3222	Converted paper product mfg.....	-	8	4	533	18 241	439	880	9 940	57 896	39 211	94 690	2 228
323	Printing & related support activities.....	2	96	20	1 660	56 467	1 136	2 377	34 709	112 129	61 863	173 975	7 764
3231	Printing & related support activities.....	2	96	20	1 660	56 467	1 136	2 377	34 709	112 129	61 863	173 975	7 764
32311	Printing.....	2	79	16	1 394	46 761	950	1 886	27 493	89 305	52 673	142 131	D
323110	Commercial lithographic printing ..	1	41	10	845	26 064	583	1 125	16 262	51 986	27 961	79 918	2 991
325	Chemical mfg.....	7	17	6	531	15 670	325	606	7 580	45 901	42 410	87 636	3 455
326	Plastics & rubber products mfg.....	1	32	17	1 167	35 757	873	1 569	20 442	84 877	83 434	169 490	5 658
3261	Plastics product mfg.....	2	26	14	g	D	D	D	D	D	D	D	5 201
32619	Other plastics product mfg.....	2	19	13	985	29 294	748	1 336	17 609	57 697	43 833	101 922	4 490
326199	All other plastics product mfg.....	2	19	13	985	29 294	748	1 336	17 609	57 697	43 833	101 922	4 490
332	Fabricated metal product mfg.....	1	115	28	2 631	84 751	1 920	4 044	52 628	172 401	82 736	256 579	8 844
3321	Forging & stamping.....	-	8	5	834	27 321	671	1 422	18 723	50 155	19 220	70 355	1 839
33211	Forging & stamping.....	-	8	5	834	27 321	671	1 422	18 723	50 155	19 220	70 355	1 839
332116	Metal stamping.....	-	6	3	f	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg.....	3	57	7	f	D	D	D	D	D	D	D	D
33271	Machine shops.....	3	49	5	538	17 089	404	783	11 045	36 211	12 375	48 716	2 552
332710	Machine shops.....	3	49	5	538	17 089	404	783	11 045	36 211	12 375	48 716	2 552
333	Machinery mfg.....	5	64	21	1 567	59 469	955	1 905	28 019	111 574	104 571	216 517	7 728
3332	Industrial machinery mfg ..	7	15	8	599	22 845	336	700	10 163	44 754	39 747	84 860	2 831
33329	Other industrial machinery mfg.....	7	12	6	545	20 566	299	628	9 039	40 388	36 042	76 900	D
334	Computer & electronic product mfg.....	-	38	19	1 960	81 985	1 162	2 139	35 944	174 259	124 562	297 479	19 043
3344	Semiconductor & other electronic component mfg.....	1	17	8	633	18 833	449	766	9 526	39 768	27 881	67 700	4 180
33441	Semiconductor & other electronic component mfg.....	1	17	8	633	18 833	449	766	9 526	39 768	27 881	67 700	4 180
3345	Navigational, measuring, medical, & control instruments mfg.....	-	14	7	838	35 573	429	700	14 579	79 102	41 273	118 334	D
33451	Navigational, measuring, medical, & control instruments mfg.....	-	14	7	838	35 573	429	700	14 579	79 102	41 273	118 334	D
335	Electrical equipment, appliance, & component mfg.....	-	13	6	1 043	28 659	497	1 107	12 412	97 040	32 139	130 477	1 867
339	Miscellaneous mfg.....	1	49	11	1 211	42 753	710	1 462	19 263	123 498	76 882	202 451	5 494
3391	Medical equipment & supplies mfg.....	-	26	7	910	31 225	542	1 095	15 295	92 665	48 990	142 514	2 935
33911	Medical equipment & supplies mfg.....	-	26	7	910	31 225	542	1 095	15 295	92 665	48 990	142 514	2 935
339112	Surgical & medical instrument mfg.....	-	9	5	628	21 443	342	690	9 251	64 989	29 931	95 904	2 430
SUFFOLK COUNTY, MA													
31-33	Manufacturing	1	624	192	21 366	745 390	14 111	28 962	391 606	2 606 872	1 733 599	4 317 936	283 679
311	Food mfg.....	2	121	37	3 304	86 015	2 239	4 354	49 599	210 854	438 425	649 994	15 665
3116	Meat product mfg.....	2	14	11	982	27 957	666	1 487	16 337	67 230	175 600	244 071	5 082
31161	Animal slaughtering & processing.....	2	14	11	982	27 957	666	1 487	16 337	67 230	175 600	244 071	5 082
3118	Bakeries & tortilla mfg.....	3	66	12	1 195	25 060	818	1 487	15 577	54 303	33 606	88 019	3 134
31181	Bread & bakery product mfg.....	3	59	10	951	19 048	619	1 176	11 313	47 934	28 892	77 035	D
311812	Commercial bakeries .	4	13	7	627	13 501	417	843	8 293	35 133	17 583	52 805	1 442

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	SUFFOLK COUNTY, MA—Con.												
31-33	Manufacturing—Con.												
315	Apparel mfg	2	55	26	1 985	51 758	1 458	2 744	23 384	89 218	75 070	158 079	3 303
3152	Cut & sew apparel mfg	2	46	23	g	D	D	D	D	D	D	D	3 077
31521	Cut & sew apparel contractors	8	25	11	586	8 368	558	924	7 310	12 947	3 200	16 161	359
315212	Women's, girls', & infants' cut & sew apparel contractors ..	9	24	10	f	D	D	D	D	D	D	D	D
31523	Women's & girls' cut & sew apparel mfg	—	10	8	738	30 591	421	763	6 930	48 048	49 935	91 730	2 198
323	Printing & related support activities	2	121	29	2 463	92 771	1 813	3 597	58 156	173 713	95 168	269 213	13 759
3231	Printing & related support activities	2	121	29	2 463	92 771	1 813	3 597	58 156	173 713	95 168	269 213	13 759
32311	Printing	3	103	24	2 100	80 944	1 505	2 987	49 083	151 805	90 180	242 175	12 364
323110	Commercial lithographic printing ..	2	57	16	1 579	65 037	1 098	2 198	39 190	119 028	67 676	186 943	10 300
325	Chemical mfg	1	21	9	1 241	43 743	701	1 256	24 623	250 136	139 555	391 840	D
3254	Pharmaceutical & medicine mfg	1	5	3	639	15 624	386	771	10 266	169 512	98 969	268 497	D
32541	Pharmaceutical & medicine mfg	1	5	3	639	15 624	386	771	10 266	169 512	98 969	268 497	D
326	Plastics & rubber products mfg	—	11	6	f	D	D	D	D	D	D	D	4 817
332	Fabricated metal product mfg	—	58	15	3 011	129 149	2 299	5 178	85 137	819 392	165 419	967 342	D
3322	Cutlery & handtool mfg	—	1	1	g	D	D	D	D	D	D	D	D
33221	Cutlery & handtool mfg ..	—	1	1	g	D	D	D	D	D	D	D	D
332211	Cutlery & flatware (except precious) mfg	—	1	1	g	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg	—	25	5	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	—	24	9	2 685	106 319	991	1 910	23 224	416 718	173 236	598 723	21 904
3345	Navigational, measuring, medical, & control instruments mfg	—	8	3	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	—	8	3	g	D	D	D	D	D	D	D	D
334515	Electricity measuring & testing instrument mfg	—	2	1	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	2	10	4	1 066	32 052	772	1 747	18 279	78 247	53 394	133 456	5 045
3359	Other electrical equipment & component mfg	1	5	3	996	29 972	724	1 663	17 127	72 204	47 497	121 469	D
33593	Wiring device mfg	—	2	2	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	—	14	7	781	26 157	537	1 161	14 412	54 665	79 389	131 804	5 431
3363	Motor vehicle parts mfg	—	8	4	611	21 553	397	926	11 013	48 588	71 204	117 161	D
337	Furniture & related product mfg	2	22	6	526	16 109	390	853	10 891	37 808	32 825	70 527	2 136
339	Miscellaneous mfg	—	62	9	1 115	45 180	563	1 088	14 854	104 970	160 515	255 518	4 493
3399	Other miscellaneous mfg ..	—	42	5	879	38 008	396	814	11 188	91 061	149 913	230 827	3 282
33991	Jewelry & silverware mfg	—	15	2	f	D	D	D	D	D	D	D	D
	WORCESTER COUNTY, MA												
31-33	Manufacturing	2	1 336	507	61 344	2 340 872	39 194	79 832	1 140 128	6 347 543	4 957 057	11 303 351	491 196
311	Food mfg	1	66	20	1 495	39 088	969	1 789	22 886	187 732	164 028	351 578	7 569
3118	Bakeries & tortilla mfg	—	42	11	644	14 258	399	716	8 554	97 183	43 426	140 735	1 505
31181	Bread & bakery product mfg	—	41	11	f	D	D	D	D	D	D	D	D
312	Beverage & tobacco product mfg	—	7	2	630	15 292	182	366	4 669	59 731	71 684	130 303	8 659
3121	Beverage mfg	—	7	2	630	15 292	182	366	4 669	59 731	71 684	130 303	8 659
31211	Soft drink & ice mfg	—	4	1	f	D	D	D	D	D	D	D	D
312111	Soft drink mfg	—	3	1	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	WORCESTER COUNTY, MA—Con.												
	Manufacturing—Con.												
313	Textile mills	2	21	14	1 825	56 687	1 347	2 911	38 178	155 584	155 083	315 264	8 917
3132	Fabric mills	6	5	5	f	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills	9	3	3	522	10 621	325	752	7 611	14 607	12 080	31 206	D
313210	Broadwoven fabric mills	9	3	3	522	10 621	325	752	7 611	14 607	12 080	31 206	D
3133	Textile & fabric finishing & fabric coating mills	1	11	7	905	33 862	676	1 496	20 961	121 150	113 889	235 119	D
31331	Textile & fabric finishing mills	1	5	2	f	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills	1	5	2	f	D	D	D	D	D	D	D	D
314	Textile product mills	—	24	6	f	D	D	D	D	D	D	D	1 587
3149	Other textile product mills	—	14	5	747	25 518	520	1 017	13 928	43 338	62 866	103 865	D
31499	All other textile product mills	—	10	4	665	23 252	460	900	12 536	39 079	58 837	95 577	1 099
314999	All other miscellaneous textile product mills	—	10	4	665	23 252	460	900	12 536	39 079	58 837	95 577	1 099
321	Wood product mfg	1	43	11	641	17 815	453	846	10 088	38 808	34 220	71 775	2 129
3219	Other wood product mfg	1	35	9	f	D	D	D	D	D	D	D	1 594
322	Paper mfg	—	36	25	3 644	143 671	2 562	5 902	81 241	390 460	451 041	838 840	27 966
3222	Converted paper product mfg	—	31	21	3 216	121 746	2 288	5 175	69 604	329 788	372 059	701 750	19 090
32221	Paperboard container mfg	—	14	10	1 176	42 763	900	1 874	24 531	98 926	113 562	211 254	9 988
322211	Corrugated & solid fiber box mfg	—	9	7	669	27 756	505	1 119	14 529	57 658	84 526	142 342	5 806
322212	Folding paperboard box mfg	—	4	3	f	D	D	D	D	D	D	D	D
32222	Paper bag & coated & treated paper mfg	—	3	2	g	D	D	D	D	D	D	D	D
322222	Coated & laminated paper mfg	—	3	2	g	D	D	D	D	D	D	D	D
32223	Stationery product mfg	2	8	6	653	22 436	463	1 007	15 595	51 284	52 345	103 584	2 131
322232	Envelope mfg	2	6	6	f	D	D	D	D	D	D	D	D
323	Printing & related support activities	1	121	23	1 935	59 215	1 388	2 552	38 349	105 351	65 914	172 019	14 141
3231	Printing & related support activities	1	121	23	1 935	59 215	1 388	2 552	38 349	105 351	65 914	172 019	14 141
32311	Printing	1	103	19	1 642	51 867	1 170	2 167	33 405	93 328	62 902	156 925	D
323110	Commercial lithographic printing	—	55	13	1 145	35 416	837	1 513	24 148	62 307	44 649	107 901	11 509
325	Chemical mfg	1	54	29	3 730	178 486	1 811	3 623	60 396	633 566	572 220	1 203 955	67 401
3254	Pharmaceutical & medicine mfg	—	10	5	1 773	102 280	575	1 181	20 328	414 177	184 597	600 657	37 376
32541	Pharmaceutical & medicine mfg	—	10	5	1 773	102 280	575	1 181	20 328	414 177	184 597	600 657	37 376
325412	Pharmaceutical preparation mfg	—	4	1	g	D	D	D	D	D	D	D	D
3259	Other chemical product mfg	1	27	16	1 427	52 280	876	1 718	26 851	105 851	276 376	381 265	D
32599	All other chemical product & preparation mfg	2	26	16	g	D	D	D	D	D	D	D	D
325991	Custom compounding of purchased resin	2	21	15	g	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	1	120	65	6 474	221 399	5 196	11 203	142 204	557 008	498 602	1 055 423	54 547
3261	Plastics product mfg	1	114	63	i	D	D	D	D	D	D	D	D
32619	Other plastics product mfg	1	88	51	5 076	173 413	4 087	8 777	110 301	418 803	352 122	772 330	43 412
326199	All other plastics product mfg	1	86	51	i	D	D	D	D	D	D	D	D
327	Nonmetallic mineral product mfg	—	50	22	4 368	192 390	2 731	5 612	86 920	410 599	265 902	674 038	63 431
3272	Glass & glass product mfg	—	9	5	828	31 007	567	1 171	18 036	81 758	55 025	133 279	D
32721	Glass & glass product mfg	—	9	5	828	31 007	567	1 171	18 036	81 758	55 025	133 279	D
327215	Glass product mfg made of purchased glass	—	5	4	f	D	D	D	D	D	D	D	D
3279	Other nonmetallic mineral product mfg	—	16	9	2 838	134 347	1 707	3 486	53 507	257 410	160 689	419 992	D
32791	Abrasive product mfg	—	10	8	2 791	132 861	1 678	3 432	52 809	252 488	157 231	411 643	26 049
327910	Abrasive product mfg	—	10	8	2 791	132 861	1 678	3 432	52 809	252 488	157 231	411 643	26 049
331	Primary metal mfg	—	20	11	1 105	38 468	849	1 822	26 658	90 164	142 106	231 821	8 768
3314	Nonferrous metal (except aluminum) production & processing	—	7	4	543	19 196	409	881	12 569	48 602	95 207	144 021	D
33142	Copper rolling, drawing, extruding, & alloying	—	5	3	f	D	D	D	D	D	D	D	D

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	WORCESTER COUNTY, MA—Con.												
	Manufacturing—Con.												
332	Fabricated metal product mfg	1	283	90	10 201	370 661	7 420	15 299	218 629	760 399	475 686	1 233 182	48 410
3321	Forging & stamping	5	18	8	1 671	74 479	1 423	3 043	44 803	132 748	101 598	228 337	10 205
33211	Forging & stamping	5	18	8	1 671	74 479	1 423	3 043	44 803	132 748	101 598	228 337	10 205
332111	Iron & steel forging	8	2	2	g	D	D	D	D	D	D	D	D
3322	Cutlery & handtool mfg	—	13	8	2 147	73 029	1 453	3 215	41 078	156 445	64 835	217 282	D
33221	Cutlery & handtool mfg	—	13	8	2 147	73 029	1 453	3 215	41 078	156 445	64 835	217 282	D
332212	Hand & edge tool mfg	—	10	6	g	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg	1	32	10	f	D	D	D	D	D	D	D	D
33231	Plate work & fabricated structural product mfg	—	11	6	536	21 528	340	751	12 193	36 911	30 899	69 981	D
3325	Hardware mfg	—	8	5	568	12 741	484	571	7 448	29 541	14 382	43 518	D
33251	Hardware mfg	—	8	5	568	12 741	484	571	7 448	29 541	14 382	43 518	D
332510	Hardware mfg	—	8	5	568	12 741	484	571	7 448	29 541	14 382	43 518	D
3326	Spring & wire product mfg	—	17	10	891	23 269	598	1 178	14 438	56 976	58 976	115 871	4 676
33261	Spring & wire product mfg	—	17	10	891	23 269	598	1 178	14 438	56 976	58 976	115 871	4 676
332618	Other fabricated wire product mfg	1	13	7	f	D	D	D	D	D	D	D	D
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1	133	27	1 804	66 181	1 324	2 766	42 870	124 917	48 923	173 591	6 883
33271	Machine shops	1	114	17	1 303	49 033	962	2 006	31 782	94 061	32 346	126 439	4 658
332710	Machine shops	1	114	17	1 303	49 033	962	2 006	31 782	94 061	32 346	126 439	4 658
33272	Turned product & screw, nut, & bolt mfg	1	19	10	501	17 148	362	760	11 088	30 856	16 577	47 152	2 225
3328	Coating, engraving, heat treating, & allied activities	—	33	10	564	18 164	450	909	11 166	39 220	11 126	50 523	3 075
33281	Coating, engraving, heat treating, & allied activities	—	33	10	564	18 164	450	909	11 166	39 220	11 126	50 523	3 075
3329	Other fabricated metal product mfg	—	27	11	1 668	68 884	1 076	2 298	36 554	161 352	127 867	294 636	7 768
33291	Metal valve mfg	—	9	4	976	45 265	585	1 148	22 303	110 658	89 677	205 734	5 159
332911	Industrial valve mfg	—	7	4	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg	—	18	7	692	23 619	491	1 150	14 251	50 694	38 190	88 902	2 609
333	Machinery mfg	2	169	62	6 267	264 000	3 845	7 854	135 030	574 872	373 359	946 254	29 589
3332	Industrial machinery mfg	3	24	9	1 000	43 314	544	1 084	18 619	103 428	81 570	179 103	5 301
33329	Other industrial machinery mfg	4	14	4	606	29 550	322	701	12 685	75 005	61 969	131 128	D
3333	Commercial & service industry machinery mfg	1	15	7	777	25 761	540	1 054	13 765	63 464	29 175	91 835	4 133
33331	Commercial & service industry machinery mfg	1	15	7	777	25 761	540	1 054	13 765	63 464	29 175	91 835	4 133
333314	Optical instrument & lens mfg	1	10	5	707	23 704	502	995	12 849	57 860	23 924	80 982	3 903
3335	Metalworking machinery mfg	5	86	24	2 500	106 737	1 581	3 224	61 208	223 941	132 969	354 913	11 151
33351	Metalworking machinery mfg	5	86	24	2 500	106 737	1 581	3 224	61 208	223 941	132 969	354 913	11 151
333511	Industrial mold mfg	4	31	7	511	24 018	408	939	17 844	39 876	13 924	53 951	2 366
333516	Rolling mill machinery & equipment mfg	9	2	1	f	D	D	D	D	D	D	D	D
3336	Engine, turbine, & power transmission equipment mfg	—	8	5	946	46 310	547	1 123	22 664	104 060	57 185	159 048	2 434
33361	Engine, turbine, & power transmission equipment mfg	—	8	5	946	46 310	547	1 123	22 664	104 060	57 185	159 048	2 434
333611	Turbine & turbine generator set unit mfg	—	4	3	f	D	D	D	D	D	D	D	2 097
3339	Other general-purpose machinery mfg	1	25	11	697	29 574	376	867	12 379	63 251	51 948	115 652	5 779

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

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

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	WORCESTER COUNTY, MA—Con.												
	Manufacturing—Con.												
334	Computer & electronic product mfg	3	70	34	9 166	411 991	3 510	6 909	98 361	1 629 762	998 262	2 633 551	102 597
3341	Computer & peripheral equipment mfg	—	8	3	2 084	95 480	387	553	8 291	155 515	390 505	542 529	D
33411	Computer & peripheral equipment mfg	—	8	3	2 084	95 480	387	553	8 291	155 515	390 505	542 529	D
334111	Electronic computer mfg	—	1	1	f	D	D	D	D	D	D	D	D
334112	Computer storage device mfg	—	1	1	g	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	9	8	6	2 756	121 626	886	1 549	21 117	771 881	158 429	943 808	D
33421	Telephone apparatus mfg	9	1	1	f	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	9	1	1	f	D	D	D	D	D	D	D	D
33429	Other communications equipment mfg	9	2	2	g	D	D	D	D	D	D	D	D
334290	Other communications equipment mfg	9	2	2	g	D	D	D	D	D	D	D	D
3343	Audio & video equipment mfg	—	2	2	f	D	D	D	D	D	D	D	D
33431	Audio & video equipment mfg	—	2	2	f	D	D	D	D	D	D	D	D
334310	Audio & video equipment mfg	—	2	2	f	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	—	25	13	g	D	D	D	D	D	D	D	20 373
33441	Semiconductor & other electronic component mfg	—	25	13	g	D	D	D	D	D	D	D	20 373
334413	Semiconductor & related device mfg ...	—	6	4	1 116	50 872	664	1 389	22 100	125 157	136 062	248 595	D
3345	Navigational, measuring, medical, & control instruments mfg	—	24	9	1 918	96 058	650	1 243	17 600	253 892	159 037	412 551	18 348
33451	Navigational, measuring, medical, & control instruments mfg	—	24	9	1 918	96 058	650	1 243	17 600	253 892	159 037	412 551	18 348
334516	Analytical laboratory instrument mfg	—	6	3	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	4	33	23	2 504	113 794	1 687	3 370	57 008	282 556	299 775	581 976	19 806
3359	Other electrical equipment & component mfg	4	24	18	2 150	101 209	1 460	2 952	51 716	247 703	280 353	528 055	18 502
33592	Communication & energy wire & cable mfg	4	15	15	1 851	89 102	1 286	2 575	46 615	217 163	259 447	475 151	D
335929	Other communication & energy wire mfg ...	5	13	13	g	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	1	68	25	2 311	69 262	1 764	3 274	43 812	136 009	120 297	255 729	7 553
3371	Household & institutional furniture & kitchen cabinet mfg	1	50	17	g	D	D	D	D	D	D	D	D
33712	Household & institutional furniture mfg	1	39	14	1 322	35 937	1 028	1 931	25 559	63 414	46 430	109 370	2 385
337122	Nonupholstered wood household furniture mfg	—	20	7	763	19 914	582	1 139	14 563	40 354	29 481	69 221	1 221
3372	Office furniture (including fixtures) mfg	—	15	8	871	30 224	645	1 147	16 283	66 524	69 134	135 472	4 953
33721	Office furniture (including fixtures) mfg	—	15	8	871	30 224	645	1 147	16 283	66 524	69 134	135 472	4 953
339	Miscellaneous mfg	2	103	26	2 816	83 341	1 867	3 608	39 650	195 041	108 348	308 271	10 340
3391	Medical equipment & supplies mfg	2	44	15	1 938	59 867	1 254	2 373	26 578	141 360	62 620	208 880	8 610
33911	Medical equipment & supplies mfg	2	44	15	1 938	59 867	1 254	2 373	26 578	141 360	62 620	208 880	8 610
339115	Ophthalmic goods mfg	—	6	5	g	D	D	D	D	D	D	D	D
3399	Other miscellaneous mfg ..	2	59	11	878	23 474	613	1 235	13 072	53 681	45 728	99 391	1 730

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

²Industries with 500 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 500 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: c–100 to 249 employees; e–250 to 499 employees; g–500 to 999 employees; i–1,000 to 2,499 employees, h–2,500 to 4,999 employees; j–5,000 to 9,999 employees; k–10,000 to 24,999 employees; l–25,000 to 49,999 employees; m–50,000 to 99,999 employees; n–100,000 employees or more.

Table 4. Industry Statistics for Places: 1997

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
ACTON TOWN, MA													
31-33	Manufacturing	2	40	13	1 714	65 048	998	1 918	29 382	144 014	93 636	236 435	8 474
334	Computer & electronic product mfg	1	13	5	750	28 503	337	580	8 932	75 466	25 678	98 919	4 421
3344	Semiconductor & other electronic component mfg	1	5	3	634	23 197	264	478	6 706	65 285	19 273	82 361	D
33441	Semiconductor & other electronic component mfg	1	5	3	634	23 197	264	478	6 706	65 285	19 273	82 361	D
AGAWAM, MA													
31-33	Manufacturing	1	57	25	1 873	70 463	1 214	2 481	34 079	177 802	177 451	348 289	10 519
332	Fabricated metal product mfg	1	23	9	612	27 185	399	903	11 752	56 810	38 823	93 597	3 312
AMESBURY TOWN, MA													
31-33	Manufacturing	2	38	14	1 390	49 997	1 025	2 096	28 468	111 917	60 157	168 985	6 202
ANDOVER TOWN, MA													
31-33	Manufacturing	-	34	21	6 255	353 635	3 116	7 267	132 739	1 585 271	998 668	2 564 746	178 141
325	Chemical mfg	-	5	5	g	D	D	D	D	D	D	D	D
3254	Pharmaceutical & medicine mfg	-	3	3	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	-	3	3	f	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	-	3	3	f	D	D	D	D	D	D	D	D
3256	Soap, cleaning compound, & toilet preparation mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
32562	Toilet preparation mfg	-	1	1	f	D	D	D	D	D	D	D	D
325620	Toilet preparation mfg	-	1	1	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	11	8	4 356	258 997	1 972	4 700	78 286	914 001	659 263	1 587 002	D
3344	Semiconductor & other electronic component mfg	1	5	4	g	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	1	5	4	g	D	D	D	D	D	D	D	D
334419	Other electronic component mfg	-	1	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	3	3	3 115	209 445	1 242	3 209	55 008	603 257	433 912	1 050 727	24 442
33451	Navigational, measuring, medical, & control instruments mfg	-	3	3	3 115	209 445	1 242	3 209	55 008	603 257	433 912	1 050 727	24 442
334510	Electromedical & electrotherapeutic apparatus mfg	-	2	2	h	D	D	D	D	D	D	D	D
ASHLAND TOWN, MA													
31-33	Manufacturing	-	31	11	1 071	42 034	620	1 224	18 492	105 097	99 065	203 429	3 685
339	Miscellaneous mfg	-	5	1	f	D	D	D	D	D	D	D	D
3399	Other miscellaneous mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
33999	All other miscellaneous mfg	-	1	1	f	D	D	D	D	D	D	D	D
339999	All other miscellaneous mfg	-	1	1	f	D	D	D	D	D	D	D	D
ATHOL TOWN, MA													
31-33	Manufacturing	-	11	6	1 442	44 157	1 004	2 144	28 720	81 248	34 190	112 176	D
332	Fabricated metal product mfg	-	1	1	g	D	D	D	D	D	D	D	D
3322	Cutlery & handtool mfg	-	1	1	g	D	D	D	D	D	D	D	D
33221	Cutlery & handtool mfg ..	-	1	1	g	D	D	D	D	D	D	D	D
332212	Hand & edge tool mfg ..	-	1	1	g	D	D	D	D	D	D	D	D

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

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
ATTLEBORO, MA													
31-33	Manufacturing	-	143	54	9 714	333 510	6 375	12 686	147 899	704 774	670 664	1 411 970	57 341
331	Primary metal mfg	-	6	4	f	D	D	D	D	D	D	D	D
3314	Nonferrous metal (except aluminum) production & processing	-	4	4	f	D	D	D	D	D	D	D	D
33149	Other nonferrous metal rolling, drawing, extruding, & alloying ...	-	4	4	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	36	14	924	28 475	692	1 400	18 253	53 408	29 581	82 854	4 555
336	Transportation equipment mfg	-	2	1	h	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg ...	-	2	1	h	D	D	D	D	D	D	D	D
33639	Other motor vehicle parts mfg	-	1	1	h	D	D	D	D	D	D	D	D
336399	All other motor vehicle parts mfg	-	1	1	h	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	-	44	16	2 400	61 504	1 858	3 755	39 236	176 133	110 288	295 197	5 299
3399	Other miscellaneous mfg ..	-	41	15	g	D	D	D	D	D	D	D	D
33991	Jewelry & silverware mfg	-	33	13	2 171	55 474	1 691	3 473	35 469	162 441	103 216	274 443	D
339911	Jewelry (except costume) mfg	-	16	8	869	24 266	695	1 274	14 788	96 187	60 857	157 512	D
339914	Costume jewelry & novelty mfg	-	10	3	f	D	D	D	D	D	D	D	D
AUBURN TOWN, MA													
31-33	Manufacturing	4	30	11	1 111	48 122	721	1 472	26 606	118 844	133 074	252 332	9 050
BARNSTABLE, MA													
31-33	Manufacturing	2	49	6	g	D	D	D	D	D	D	D	7 996
BEDFORD TOWN, MA													
31-33	Manufacturing	-	39	21	17 254	959 811	4 495	10 648	212 100	2 096 199	1 187 820	3 252 241	88 082
334	Computer & electronic product mfg	-	20	14	16 318	908 696	4 052	9 674	195 375	1 940 008	1 037 527	2 946 029	76 228
3341	Computer & peripheral equipment mfg	1	6	5	1 161	59 703	203	434	6 730	97 758	168 479	276 870	16 031
33411	Computer & peripheral equipment mfg	1	6	5	1 161	59 703	203	434	6 730	97 758	168 479	276 870	16 031
334113	Computer terminal mfg	-	2	1	f	D	D	D	D	D	D	D	D
334119	Other computer peripheral equipment mfg	2	4	4	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	6	5	j	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	6	5	j	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	2	2	j	D	D	D	D	D	D	D	D
BEVERLY, MA													
31-33	Manufacturing	-	83	26	3 861	168 130	1 862	3 927	58 334	469 110	261 726	726 116	22 508
332	Fabricated metal product mfg	1	25	4	527	17 117	333	715	10 121	33 419	15 776	49 405	1 413
333	Machinery mfg	-	5	3	g	D	D	D	D	D	D	D	D
3332	Industrial machinery mfg ..	-	2	2	g	D	D	D	D	D	D	D	D
33329	Other industrial machinery mfg	-	2	2	g	D	D	D	D	D	D	D	D
333295	Semiconductor machinery mfg	-	1	1	g	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	11	8	1 097	41 229	660	1 260	18 513	121 171	68 432	190 255	7 185
3344	Semiconductor & other electronic component mfg	-	3	3	611	18 733	444	808	10 885	40 090	19 611	58 981	2 209
33441	Semiconductor & other electronic component mfg	-	3	3	611	18 733	444	808	10 885	40 090	19 611	58 981	2 209

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

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
BILLERICA TOWN, MA													
31-33	Manufacturing	1	114	42	8 071	375 376	3 361	6 892	114 332	1 045 186	610 463	1 650 334	59 057
325	Chemical mfg	-	6	4	952	49 489	441	959	18 106	249 463	55 064	303 458	D
3254	Pharmaceutical & medicine mfg	-	2	1	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	-	2	1	f	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	-	1	1	f	D	D	D	D	D	D	D	D
333	Machinery mfg	6	17	6	1 394	81 440	739	1 591	34 144	143 869	166 300	313 945	D
3332	Industrial machinery mfg ..	7	5	3	g	D	D	D	D	D	D	D	D
33329	Other industrial machinery mfg	7	5	3	g	D	D	D	D	D	D	D	D
333295	Semiconductor machinery mfg	8	2	2	g	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	31	13	3 427	155 036	857	1 786	28 456	461 320	285 585	741 054	26 584
3342	Communications equipment mfg	-	3	1	g	D	D	D	D	D	D	D	D
33421	Telephone apparatus mfg	-	2	1	g	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	-	2	1	g	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	1	12	5	727	29 813	257	442	7 890	81 066	41 229	120 676	6 029
33441	Semiconductor & other electronic component mfg	1	12	5	727	29 813	257	442	7 890	81 066	41 229	120 676	6 029
339	Miscellaneous mfg	-	4	2	f	D	D	D	D	D	D	D	D
3391	Medical equipment & supplies mfg	-	2	2	f	D	D	D	D	D	D	D	D
33911	Medical equipment & supplies mfg	-	2	2	f	D	D	D	D	D	D	D	D
339112	Surgical & medical instrument mfg	-	2	2	f	D	D	D	D	D	D	D	D
BOSTON, MA													
31-33	Manufacturing	1	536	159	18 944	671 464	12 521	25 798	353 140	2 424 545	1 540 748	3 941 523	273 251
311	Food mfg	2	108	33	2 585	68 223	1 801	3 542	40 446	168 023	357 056	525 656	11 967
3116	Meat product mfg	3	12	10	f	D	D	D	D	D	D	D	D
31161	Animal slaughtering & processing	3	12	10	f	D	D	D	D	D	D	D	D
3118	Bakeries & tortilla mfg	4	57	9	f	D	D	D	D	D	D	D	D
31181	Bread & bakery product mfg	4	52	8	735	14 157	452	839	7 911	32 129	22 031	54 277	D
315	Apparel mfg	2	52	25	g	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	2	43	22	g	D	D	D	D	D	D	D	D
31521	Cut & sew apparel contractors	9	24	10	f	D	D	D	D	D	D	D	D
315212	Women's, girls', & infants' cut & sew apparel contractors ..	9	24	10	f	D	D	D	D	D	D	D	D
31523	Women's & girls' cut & sew apparel mfg	-	9	8	f	D	D	D	D	D	D	D	D
323	Printing & related support activities	3	108	26	2 322	87 037	1 718	3 405	54 392	162 885	90 603	253 697	13 456
3231	Printing & related support activities	3	108	26	2 322	87 037	1 718	3 405	54 392	162 885	90 603	253 697	13 456
32311	Printing	3	92	22	g	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing ..	3	51	14	1 494	61 709	1 043	2 078	37 210	112 707	64 045	176 996	10 037
325	Chemical mfg	1	13	6	1 093	39 113	630	1 136	22 835	237 120	125 480	364 674	D
3254	Pharmaceutical & medicine mfg	-	4	3	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	-	4	3	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	10	6	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	45	9	2 591	114 730	2 006	4 521	77 304	797 280	151 186	930 496	D
3322	Cutlery & handtool mfg	-	1	1	g	D	D	D	D	D	D	D	D
33221	Cutlery & handtool mfg ..	-	1	1	g	D	D	D	D	D	D	D	D
332211	Cutlery & flatware (except precious) mfg	-	1	1	g	D	D	D	D	D	D	D	D
3323	Architectural & structural metals mfg	-	23	4	f	D	D	D	D	D	D	D	D

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
BOSTON, MA—Con.													
31-33	Manufacturing—Con.												
334	Computer & electronic product mfg.....	-	20	7	2 622	104 646	946	1 836	22 277	412 288	170 956	591 958	21 127
3345	Navigational, measuring, medical, & control instruments mfg.....	-	7	2	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg.....	-	7	2	g	D	D	D	D	D	D	D	D
334515	Electricity measuring & testing instrument mfg.....	-	2	1	g	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg.....	2	8	3	g	D	D	D	D	D	D	D	D
3359	Other electrical equipment & component mfg.....	1	5	3	996	29 972	724	1 663	17 127	72 204	47 497	121 469	D
33593	Wiring device mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg.....	-	13	7	f	D	D	D	D	D	D	D	D
3363	Motor vehicle parts mfg...	-	8	4	611	21 553	397	926	11 013	48 588	71 204	117 161	D
339	Miscellaneous mfg.....	-	53	7	f	D	D	D	D	D	D	D	D
3399	Other miscellaneous mfg..	-	37	4	f	D	D	D	D	D	D	D	D
BRAINTREE TOWN, MA													
31-33	Manufacturing	-	54	19	2 180	93 364	1 683	3 032	43 006	333 808	145 139	470 025	30 351
334	Computer & electronic product mfg.....	-	5	4	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg.....	-	4	4	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg.....	-	4	4	f	D	D	D	D	D	D	D	D
334510	Electromedical & electrotherapeutic apparatus mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
BROCKTON, MA													
31-33	Manufacturing	3	121	38	3 009	92 027	2 260	4 328	55 183	217 622	155 595	377 982	11 054
BURLINGTON TOWN, MA													
31-33	Manufacturing	4	52	18	2 131	97 142	1 141	2 524	36 343	219 369	124 897	345 207	16 917
334	Computer & electronic product mfg.....	3	13	9	1 438	69 248	738	1 685	23 456	162 010	93 550	257 534	12 480
3344	Semiconductor & other electronic component mfg.....	5	6	5	893	32 217	579	1 324	17 106	75 262	47 674	125 131	7 023
33441	Semiconductor & other electronic component mfg.....	5	6	5	893	32 217	579	1 324	17 106	75 262	47 674	125 131	7 023
CAMBRIDGE, MA													
31-33	Manufacturing	2	106	42	3 050	98 130	1 707	3 413	45 649	356 954	215 606	585 160	19 511
311	Food mfg.....	-	14	10	930	22 265	715	1 394	15 062	117 053	80 411	197 593	7 981
3113	Sugar & confectionery product mfg.....	-	5	5	f	D	D	D	D	D	D	D	D
325	Chemical mfg.....	2	18	11	596	22 941	333	613	10 548	119 775	75 676	206 970	5 168
334	Computer & electronic product mfg.....	8	21	6	749	26 478	161	340	5 679	42 965	22 939	66 276	2 807

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
CANTON TOWN, MA													
31-33	Manufacturing	1	69	40	5 601	219 635	3 132	6 847	99 531	561 663	489 191	1 054 078	33 394
325	Chemical mfg	2	7	5	688	28 991	432	1 051	16 894	73 037	110 142	181 855	D
3254	Pharmaceutical & medicine mfg	1	2	2	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	1	2	2	f	D	D	D	D	D	D	D	D
333	Machinery mfg	2	6	5	810	35 249	423	901	15 893	60 422	83 284	146 854	4 498
3339	Other general-purpose machinery mfg	2	2	2	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	1	9	5	873	41 853	291	592	10 505	98 602	45 390	145 292	3 919
3345	Navigational, measuring, medical, & control instruments mfg	-	3	2	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	3	2	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	6	5	1 151	36 672	739	1 765	17 822	176 613	67 307	239 225	7 391
3359	Other electrical equipment & component mfg	-	3	3	f	D	D	D	D	D	D	D	D
33593	Wiring device mfg	-	1	1	f	D	D	D	D	D	D	D	D
335931	Current-carrying wiring device mfg	-	1	1	f	D	D	D	D	D	D	D	D
CHELMSFORD TOWN, MA													
31-33	Manufacturing	1	97	38	4 012	171 776	2 129	4 185	65 883	483 546	323 766	805 425	34 658
334	Computer & electronic product mfg	1	27	14	2 040	98 667	899	1 668	29 752	263 270	150 329	409 893	22 686
3342	Communications equipment mfg	3	8	3	604	25 829	409	693	14 373	55 719	40 776	94 186	D
3345	Navigational, measuring, medical, & control instruments mfg	1	8	6	920	42 480	345	723	12 220	164 513	58 661	218 627	14 521
33451	Navigational, measuring, medical, & control instruments mfg	1	8	6	920	42 480	345	723	12 220	164 513	58 661	218 627	14 521
CHELSEA, MA													
31-33	Manufacturing	1	62	28	2 084	65 953	1 352	2 771	33 716	163 069	177 299	341 448	8 738
311	Food mfg	-	6	3	f	D	D	D	D	D	D	D	3 336
CHICOPEE, MA													
31-33	Manufacturing	-	109	46	4 974	184 556	3 427	7 146	95 806	560 843	445 144	989 974	49 966
322	Paper mfg	-	10	8	576	19 535	463	1 013	13 157	47 960	50 121	97 017	9 235
3222	Converted paper product mfg	-	10	8	576	19 535	463	1 013	13 157	47 960	50 121	97 017	9 235
323	Printing & related support activities	-	10	5	977	31 146	767	1 583	18 453	89 479	81 335	170 298	7 592
3231	Printing & related support activities	-	10	5	977	31 146	767	1 583	18 453	89 479	81 335	170 298	7 592
32311	Printing	-	8	5	f	D	D	D	D	D	D	D	7 592
323110	Commercial lithographic printing ..	-	4	3	f	D	D	D	D	D	D	D	D
333	Machinery mfg	-	12	5	546	25 890	259	516	8 193	64 906	54 711	117 393	3 145
339	Miscellaneous mfg	-	11	4	g	D	D	D	D	D	D	D	D
3399	Other miscellaneous mfg ..	-	6	3	g	D	D	D	D	D	D	D	D
33992	Sporting & athletic goods mfg	-	1	1	f	D	D	D	D	D	D	D	D
339920	Sporting & athletic goods mfg	-	1	1	f	D	D	D	D	D	D	D	D
CLINTON TOWN, MA													
31-33	Manufacturing	1	35	21	2 198	88 046	1 612	3 352	51 252	189 835	121 377	311 830	11 050
326	Plastics & rubber products mfg	-	6	4	855	39 778	676	1 344	22 590	65 710	25 741	89 686	2 156
3261	Plastics product mfg	-	6	4	855	39 778	676	1 344	22 590	65 710	25 741	89 686	2 156
32619	Other plastics product mfg	-	6	4	855	39 778	676	1 344	22 590	65 710	25 741	89 686	2 156
326199	All other plastics product mfg	-	6	4	855	39 778	676	1 344	22 590	65 710	25 741	89 686	2 156

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NAICS code	Geographic area and industry	All establishments			All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
CONCORD TOWN, MA													
31-33	Manufacturing	1	46	10	1 822	67 960	930	1 422	30 592	156 950	100 572	253 564	14 686
334	Computer & electronic product mfg.....	-	11	5	1 230	50 007	613	787	21 459	118 907	54 385	170 410	9 901
3345	Navigational, measuring, medical, & control instruments mfg.....	-	6	3	1 012	40 788	502	561	18 487	93 754	36 257	127 919	D
33451	Navigational, measuring, medical, & control instruments mfg.....	-	6	3	1 012	40 788	502	561	18 487	93 754	36 257	127 919	D
334515	Electricity measuring & testing instrument mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
DANVERS TOWN, MA													
31-33	Manufacturing	-	95	32	3 507	136 954	2 219	4 074	65 501	364 443	262 055	625 643	25 515
332	Fabricated metal product mfg.....	1	30	10	705	29 311	441	903	14 715	48 421	25 931	73 977	3 537
3327	Machine shops, turned product, & screw, nut, & bolt mfg.....	-	25	8	598	25 485	366	729	12 125	42 250	24 465	66 474	D
33271	Machine shops.....	1	21	6	532	22 921	308	608	10 332	37 481	21 537	58 744	2 715
332710	Machine shops.....	1	21	6	532	22 921	308	608	10 332	37 481	21 537	58 744	2 715
335	Electrical equipment, appliance, & component mfg.....	-	2	1	f	D	D	D	D	D	D	D	D
3351	Electric lighting equipment mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
33511	Electric lamp bulb & part mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
335110	Electric lamp bulb & part mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
DARTMOUTH TOWN, MA													
31-33	Manufacturing	2	23	5	513	10 198	432	781	7 203	17 896	19 554	37 571	1 116
DRACUT TOWN, MA													
31-33	Manufacturing	4	26	7	861	38 296	494	1 073	16 333	101 081	82 691	179 198	6 635
EAST BRIDGEWATER TOWN, MA													
31-33	Manufacturing	1	19	6	609	20 415	341	660	8 230	37 333	27 252	64 148	D
EASTHAMPTON TOWN, MA													
31-33	Manufacturing	-	34	12	1 798	55 732	1 318	2 643	34 634	107 639	79 920	191 734	6 994
326	Plastics & rubber products mfg.....	-	4	2	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg.....	-	4	2	f	D	D	D	D	D	D	D	D
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
326121	Unsupported plastics profile shape mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
EAST LONGMEADOW TOWN, MA													
31-33	Manufacturing	-	39	15	3 785	152 292	2 563	5 887	85 080	535 874	240 180	777 320	21 745
332	Fabricated metal product mfg.....	-	13	7	936	45 355	580	1 435	26 301	158 231	63 352	220 077	D
3322	Cutlery & handtool mfg.....	-	3	1	f	D	D	D	D	D	D	D	D
33221	Cutlery & handtool mfg..	-	3	1	f	D	D	D	D	D	D	D	D
332213	Saw blade & handsaw mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg.....	-	2	1	g	D	D	D	D	D	D	D	D
3399	Other miscellaneous mfg..	-	1	1	g	D	D	D	D	D	D	D	D
33993	Doll, toy, & game mfg...	-	1	1	g	D	D	D	D	D	D	D	D
339932	Game, toy, & children's vehicle mfg.....	-	1	1	g	D	D	D	D	D	D	D	D
EASTON TOWN, MA													
31-33	Manufacturing	1	37	17	893	32 668	655	1 354	20 372	61 061	44 014	105 613	6 154

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		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
EVERETT, MA													
31-33	Manufacturing	1	77	27	2 216	82 079	1 574	3 234	43 711	172 010	122 824	297 034	9 295
323	Printing & related support activities.....	-	13	5	664	35 793	443	1 013	18 966	62 431	36 088	98 769	4 953
3231	Printing & related support activities.....	-	13	5	664	35 793	443	1 013	18 966	62 431	36 088	98 769	4 953
32311	Printing	-	12	4	f	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing ..	-	7	4	594	32 819	386	904	17 070	57 386	34 258	91 862	4 491
FALL RIVER, MA													
31-33	Manufacturing	1	199	89	12 366	337 276	9 909	20 638	223 107	720 215	656 256	1 364 536	64 288
313	Textile mills	-	17	10	h	D	D	D	D	D	D	D	D
3132	Fabric mills	-	6	3	g	D	D	D	D	D	D	D	D
31321	Broadwoven fabric mills ..	-	2	2	g	D	D	D	D	D	D	D	D
313210	Broadwoven fabric mills	-	2	2	g	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	-	10	7	g	D	D	D	D	D	D	D	D
31331	Textile & fabric finishing mills	-	10	7	g	D	D	D	D	D	D	D	D
313311	Broadwoven fabric finishing mills	-	8	6	g	D	D	D	D	D	D	D	D
314	Textile product mills	5	17	10	g	D	D	D	D	D	D	D	D
3141	Textile furnishings mills	8	8	6	f	D	D	D	D	D	D	D	D
31412	Curtain & linen mills	8	8	6	f	D	D	D	D	D	D	D	D
314121	Curtain & drapery mills	9	6	4	f	D	D	D	D	D	D	D	D
315	Apparel mfg	2	37	28	h	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	2	34	26	h	D	D	D	D	D	D	D	D
31521	Cut & sew apparel contractors	2	21	15	g	D	D	D	D	D	D	D	D
315212	Women's, girls', & infants' cut & sew apparel contractors ..	2	20	14	f	D	D	D	D	D	D	D	D
31522	Men's & boys' cut & sew apparel mfg	1	6	6	g	D	D	D	D	D	D	D	D
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	-	3	3	f	D	D	D	D	D	D	D	D
325	Chemical mfg	3	7	4	f	D	D	D	D	D	D	D	D
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	-	1	1	f	D	D	D	D	D	D	D	D
32522	Artificial & synthetic fibers & filaments mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
325222	Noncellulosic organic fiber mfg	-	1	1	f	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	5	4	f	D	D	D	D	D	D	D	D
3351	Electric lighting equipment mfg	-	4	3	f	D	D	D	D	D	D	D	D
33512	Lighting fixture mfg	-	4	3	f	D	D	D	D	D	D	D	D
335122	Commercial/industrial/ institutional electric lighting fixture mfg ...	-	2	2	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	-	11	5	f	D	D	D	D	D	D	D	D
FITCHBURG, MA													
31-33	Manufacturing	1	89	32	3 896	145 294	2 626	5 150	78 055	349 671	308 994	653 587	35 627
322	Paper mfg	-	8	5	604	24 819	426	999	14 518	67 111	60 601	124 827	8 183
333	Machinery mfg	-	11	4	849	39 851	492	934	19 469	105 420	45 293	148 303	D
3336	Engine, turbine, & power transmission equipment mfg	-	2	2	f	D	D	D	D	D	D	D	D
33361	Engine, turbine, & power transmission equipment mfg	-	2	2	f	D	D	D	D	D	D	D	D
333611	Turbine & turbine generator set unit mfg	-	2	2	f	D	D	D	D	D	D	D	D

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NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
FOXBOROUGH TOWN, MA													
31-33	Manufacturing	-	19	6	2 082	97 703	875	1 598	28 889	224 354	131 582	357 664	6 217
334	Computer & electronic product mfg	-	7	3	g	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	5	3	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	5	3	g	D	D	D	D	D	D	D	D
334513	Industrial process control instrument mfg	-	2	2	g	D	D	D	D	D	D	D	D
FRAMINGHAM TOWN, MA													
31-33	Manufacturing	1	94	25	2 836	98 822	1 802	3 739	47 382	348 488	226 607	571 913	14 785
322	Paper mfg	1	7	6	558	22 768	371	876	12 159	55 775	50 527	107 753	1 622
3222	Converted paper product mfg	1	7	6	558	22 768	371	876	12 159	55 775	50 527	107 753	1 622
FRANKLIN, MA													
31-33	Manufacturing	2	50	30	3 491	148 314	2 311	5 170	80 721	333 457	480 682	819 470	27 383
311	Food mfg	-	2	2	f	D	D	D	D	D	D	D	D
3115	Dairy product mfg	-	1	1	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) mfg	-	1	1	f	D	D	D	D	D	D	D	D
311511	Fluid milk mfg	-	1	1	f	D	D	D	D	D	D	D	D
333	Machinery mfg	8	7	3	538	26 442	305	684	12 177	52 531	45 873	98 603	3 778
334	Computer & electronic product mfg	-	5	4	616	24 996	174	369	4 447	57 695	42 747	105 531	3 162
3345	Navigational, measuring, medical, & control instruments mfg	-	4	3	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	4	3	f	D	D	D	D	D	D	D	D
GARDNER, MA													
31-33	Manufacturing	8	44	15	2 746	107 524	1 453	3 261	39 491	567 672	161 643	742 390	27 242
334	Computer & electronic product mfg	9	1	1	g	D	D	D	D	D	D	D	D
3342	Communications equipment mfg	9	1	1	g	D	D	D	D	D	D	D	D
33429	Other communications equipment mfg	9	1	1	g	D	D	D	D	D	D	D	D
334290	Other communications equipment mfg	9	1	1	g	D	D	D	D	D	D	D	D
GLOUCESTER, MA													
31-33	Manufacturing	1	64	24	3 948	137 205	2 689	5 247	84 094	419 058	421 294	846 761	22 582
311	Food mfg	1	11	5	725	18 093	503	939	14 172	70 910	157 075	227 985	2 788
3117	Seafood product preparation & packaging ..	1	5	4	f	D	D	D	D	D	D	D	2 730
31171	Seafood product preparation & packaging	1	5	4	f	D	D	D	D	D	D	D	2 730
311712	Fresh & frozen seafood processing ..	1	5	4	f	D	D	D	D	D	D	D	2 730
323	Printing & related support activities	9	7	2	631	23 971	492	949	17 437	36 683	46 312	83 466	D
3231	Printing & related support activities	9	7	2	631	23 971	492	949	17 437	36 683	46 312	83 466	D
32311	Printing	9	6	2	f	D	D	D	D	D	D	D	D
323113	Commercial screen printing	9	3	1	f	D	D	D	D	D	D	D	D
333	Machinery mfg	-	8	5	1 584	66 105	891	1 690	33 429	240 384	173 088	418 883	8 991
3332	Industrial machinery mfg ..	-	5	4	g	D	D	D	D	D	D	D	D
33322	Plastics & rubber industry machinery mfg	-	2	2	f	D	D	D	D	D	D	D	D
333220	Plastics & rubber industry machinery mfg	-	2	2	f	D	D	D	D	D	D	D	D
33329	Other industrial machinery mfg	-	3	2	f	D	D	D	D	D	D	D	D
333295	Semiconductor machinery mfg	-	1	1	f	D	D	D	D	D	D	D	D

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NAICS code	Geographic area and industry	All establishments			All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
GRAFTON TOWN, MA													
31-33	Manufacturing	6	26	11	1 491	66 986	1 124	2 574	35 014	124 720	102 437	219 952	11 834
332	Fabricated metal product mfg	9	4	2	f	D	D	D	D	D	D	D	D
3321	Forging & stamping	9	1	1	f	D	D	D	D	D	D	D	D
33211	Forging & stamping	9	1	1	f	D	D	D	D	D	D	D	D
332111	Iron & steel forging ...	9	1	1	f	D	D	D	D	D	D	D	D
GREENFIELD TOWN, MA													
31-33	Manufacturing	-	31	14	907	28 287	665	1 191	15 806	52 231	25 263	78 212	4 726
HANOVER TOWN, MA													
31-33	Manufacturing	1	24	9	568	20 543	359	648	9 067	58 810	59 063	118 004	2 002
HAVERHILL, MA													
31-33	Manufacturing	2	119	49	3 885	130 841	2 793	5 648	73 126	260 228	273 803	545 908	24 970
333	Machinery mfg	2	10	6	576	26 410	354	618	11 625	56 024	47 192	103 577	D
334	Computer & electronic product mfg	4	20	12	779	23 617	563	1 107	13 066	47 244	28 223	76 285	4 276
3344	Semiconductor & other electronic component mfg	5	11	8	613	17 394	447	887	9 634	35 610	21 745	57 993	D
33441	Semiconductor & other electronic component mfg	5	11	8	613	17 394	447	887	9 634	35 610	21 745	57 993	D
HINGHAM TOWN, MA													
31-33	Manufacturing	2	42	12	1 255	47 736	739	1 661	24 744	125 391	69 726	197 964	3 636
HOLBROOK TOWN, MA													
31-33	Manufacturing	-	28	8	610	20 124	410	857	11 247	44 921	41 882	86 973	3 696
HOLDEN TOWN, MA													
31-33	Manufacturing	-	15	6	773	32 620	541	929	19 660	63 130	56 248	120 280	4 619
HOLLISTON TOWN, MA													
31-33	Manufacturing	-	52	14	1 071	40 858	701	1 434	20 833	97 778	71 761	170 876	5 232
HOLYOKE, MA													
31-33	Manufacturing	-	88	42	4 223	139 038	2 811	5 561	76 892	410 882	486 744	886 844	26 172
322	Paper mfg	-	16	9	1 076	29 578	681	1 327	16 731	147 076	128 315	258 935	8 384
3222	Converted paper product mfg	-	14	7	f	D	D	D	D	D	D	D	D
32223	Stationery product mfg ..	-	8	3	617	13 564	362	673	7 350	98 857	73 788	155 712	D
322233	Stationery, tablet, & related product mfg ..	-	5	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	22	8	764	30 149	544	1 206	19 007	54 810	75 502	130 123	3 788
333	Machinery mfg	-	11	7	723	28 380	338	640	10 710	93 961	148 162	236 422	3 638
HOPKINTON TOWN, MA													
31-33	Manufacturing	-	19	8	779	37 184	317	595	11 033	63 390	47 369	108 021	5 401

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
HUDSON TOWN, MA													
31-33	Manufacturing	-	97	41	6 277	278 271	3 245	7 211	101 044	822 333	313 024	1 130 261	101 056
332	Fabricated metal product mfg	-	26	11	956	35 920	621	1 390	17 780	69 987	46 468	118 418	2 920
334	Computer & electronic product mfg	-	18	12	4 184	203 830	1 793	4 103	60 969	672 334	185 861	850 381	D
3344	Semiconductor & other electronic component mfg	-	8	6	3 889	188 670	1 618	3 741	54 520	640 613	166 677	799 087	D
33441	Semiconductor & other electronic component mfg	-	8	6	3 889	188 670	1 618	3 741	54 520	640 613	166 677	799 087	D
334413	Semiconductor & related device mfg ...	-	1	1	h	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) mfg	-	2	2	f	D	D	D	D	D	D	D	D
LAWRENCE, MA													
31-33	Manufacturing	1	120	47	6 252	207 922	4 560	9 533	119 408	607 999	465 941	1 052 447	187 615
313	Textile mills	-	3	1	g	D	D	D	D	D	D	D	D
3133	Textile & fabric finishing & fabric coating mills	-	1	1	g	D	D	D	D	D	D	D	D
31331	Textile & fabric finishing mills	-	1	1	g	D	D	D	D	D	D	D	D
313312	Textile & fabric finishing mills	-	1	1	g	D	D	D	D	D	D	D	D
315	Apparel mfg	3	6	4	f	D	D	D	D	D	D	D	D
3152	Cut & sew apparel mfg	3	5	4	f	D	D	D	D	D	D	D	D
316	Leather & allied product mfg .	-	3	2	f	D	D	D	D	D	D	D	D
3162	Footwear mfg	-	2	2	f	D	D	D	D	D	D	D	D
31621	Footwear mfg	-	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	16	6	524	16 624	391	806	12 131	38 379	65 813	105 525	D
LEOMINSTER, MA													
31-33	Manufacturing	1	135	55	6 003	196 296	4 698	9 638	127 763	547 996	709 072	1 256 030	57 206
325	Chemical mfg	-	14	10	762	25 437	407	819	12 876	79 995	152 056	230 863	5 416
326	Plastics & rubber products mfg	1	41	22	2 317	65 135	2 046	4 591	48 409	184 327	225 153	408 482	24 332
3261	Plastics product mfg	1	41	22	2 317	65 135	2 046	4 591	48 409	184 327	225 153	408 482	24 332
32619	Other plastics product mfg	1	37	21	g	D	D	D	D	D	D	D	24 172
326199	All other plastics product mfg	1	37	21	g	D	D	D	D	D	D	D	24 172
LEXINGTON TOWN, MA													
31-33	Manufacturing	-	17	5	1 598	99 168	770	1 545	49 235	180 585	149 030	335 239	18 034
334	Computer & electronic product mfg	-	5	3	1 192	80 905	586	1 166	42 855	133 786	89 141	228 982	13 690
3345	Navigational, measuring, medical, & control instruments mfg	-	4	2	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	4	2	g	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	2	1	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
LOWELL, MA													
31-33	Manufacturing	1	101	50	5 709	193 287	3 540	7 063	95 669	454 856	424 800	888 103	54 891
313	Textile mills	-	6	5	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	1	19	15	2 866	99 283	1 466	2 902	40 078	235 097	184 132	417 583	41 443
3342	Communications equipment mfg	-	3	1	g	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	1	13	11	1 455	43 555	923	1 876	19 104	115 687	134 131	251 659	D
33441	Semiconductor & other electronic component mfg	1	13	11	1 455	43 555	923	1 876	19 104	115 687	134 131	251 659	D
334413	Semiconductor & related device mfg ...	3	2	2	f	D	D	D	D	D	D	D	D
LUDLOW TOWN, MA													
31-33	Manufacturing	1	43	17	1 139	37 069	800	1 645	21 563	68 634	62 572	130 526	7 528
LYNN, MA													
31-33	Manufacturing	-	67	26	6 870	325 194	4 182	7 496	166 638	788 084	1 285 357	2 101 761	56 595
311	Food mfg	1	10	5	1 181	39 500	490	929	12 705	102 485	177 588	278 461	8 242
3115	Dairy product mfg	-	1	1	f	D	D	D	D	D	D	D	D
31151	Dairy product (except frozen) mfg	-	1	1	f	D	D	D	D	D	D	D	D
311511	Fluid milk mfg	-	1	1	f	D	D	D	D	D	D	D	D
336	Transportation equipment mfg	-	3	1	h	D	D	D	D	D	D	D	D
3364	Aerospace product & parts mfg	-	1	1	h	D	D	D	D	D	D	D	D
33641	Aerospace product & parts mfg	-	1	1	h	D	D	D	D	D	D	D	D
336412	Aircraft engine & engine parts mfg	-	1	1	h	D	D	D	D	D	D	D	D
MALDEN, MA													
31-33	Manufacturing	-	63	24	1 929	63 838	1 198	2 337	31 571	162 999	148 863	309 165	8 234
311	Food mfg	-	8	4	646	19 284	244	512	5 845	77 102	80 460	155 897	3 312
MANSFIELD TOWN, MA													
31-33	Manufacturing	-	33	17	3 849	224 155	1 979	3 729	56 554	636 276	391 869	1 037 894	25 827
322	Paper mfg	-	4	4	612	22 296	447	835	11 984	47 596	55 792	103 543	D
3222	Converted paper product mfg	-	4	4	612	22 296	447	835	11 984	47 596	55 792	103 543	D
32221	Paperboard container mfg	-	4	4	612	22 296	447	835	11 984	47 596	55 792	103 543	D
334	Computer & electronic product mfg	-	2	2	g	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	-	2	2	g	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	-	2	2	g	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) mfg	-	2	2	g	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
MARLBOROUGH, MA													
31-33	Manufacturing	-	90	37	4 959	258 042	2 115	4 419	69 033	1 102 649	499 218	1 592 938	56 129
311	Food mfg.....	-	5	3	586	19 639	448	997	11 844	130 439	103 221	233 688	14 169
325	Chemical mfg.....	-	5	3	f	D	D	D	D	D	D	D	D
3259	Other chemical product mfg.....	-	3	2	f	D	D	D	D	D	D	D	D
32599	All other chemical product & preparation mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
325998	All other miscellaneous chemical product & preparation mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg.....	-	22	16	2 310	140 334	614	1 314	21 990	668 848	241 347	897 828	28 353
3341	Computer & peripheral equipment mfg.....	-	4	3	g	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg.....	-	4	3	g	D	D	D	D	D	D	D	D
334111	Electronic computer mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
MEDFIELD TOWN, MA													
31-33	Manufacturing	2	19	8	524	21 285	316	643	9 339	56 257	55 712	112 307	3 434
MEDFORD, MA													
31-33	Manufacturing	5	52	8	924	24 852	578	1 123	12 088	66 273	36 387	98 263	2 443
METHUEN, MA													
31-33	Manufacturing	-	37	11	1 490	47 047	1 055	2 042	29 074	88 104	106 653	195 166	13 984
334	Computer & electronic product mfg.....	-	7	5	f	D	D	D	D	D	D	D	5 909
3344	Semiconductor & other electronic component mfg.....	-	3	2	f	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg.....	-	3	2	f	D	D	D	D	D	D	D	D
334412	Bare printed circuit board mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
MIDDLEBOROUGH TOWN, MA													
31-33	Manufacturing	-	29	13	1 323	45 523	957	1 900	25 347	102 977	78 244	179 589	7 745
MILFORD TOWN, MA													
31-33	Manufacturing	-	42	17	3 116	141 132	1 606	3 330	46 826	467 394	275 241	739 050	25 989
334	Computer & electronic product mfg.....	-	8	6	1 722	88 049	609	1 179	15 398	244 747	158 245	400 578	D
3345	Navigational, measuring, medical, & control instruments mfg.....	-	5	4	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg.....	-	5	4	g	D	D	D	D	D	D	D	D
334516	Analytical laboratory instrument mfg.....	-	3	3	g	D	D	D	D	D	D	D	D
MILLBURY TOWN, MA													
31-33	Manufacturing	2	33	11	820	31 425	575	1 149	18 550	51 140	53 710	104 939	2 862
NATICK TOWN, MA													
31-33	Manufacturing	-	51	16	1 774	80 202	1 044	1 986	38 726	387 534	139 962	531 121	17 599
311	Food mfg.....	-	4	2	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg.....	-	12	5	560	29 732	125	241	4 081	124 969	36 855	161 936	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
NEEDHAM TOWN, MA													
31-33	Manufacturing	—	41	19	4 631	237 618	3 083	6 307	158 158	618 775	383 817	1 003 624	26 678
334	Computer & electronic product mfg	—	8	8	3 944	212 377	2 711	5 560	147 041	473 796	230 704	705 464	23 210
3342	Communications equipment mfg	—	3	3	h	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg	—	2	2	h	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg	—	2	2	h	D	D	D	D	D	D	D	D
NEW BEDFORD, MA													
31-33	Manufacturing	1	151	64	9 839	273 760	7 526	14 853	172 432	650 558	611 546	1 259 949	47 997
311	Food mfg	2	35	7	g	D	D	D	D	D	D	D	D
3117	Seafood product preparation & packaging	2	15	5	502	12 026	377	604	5 750	57 319	78 185	135 501	D
31171	Seafood product preparation & packaging	2	15	5	502	12 026	377	604	5 750	57 319	78 185	135 501	D
3118	Bakeries & tortilla mfg	—	15	2	f	D	D	D	D	D	D	D	D
31181	Bread & bakery product mfg	—	15	2	f	D	D	D	D	D	D	D	D
311812	Commercial bakeries	—	5	1	f	D	D	D	D	D	D	D	573
313	Textile mills	2	10	6	f	D	D	D	D	D	D	D	D
315	Apparel mfg	6	21	16	g	D	D	D	D	D	D	D	1 507
3152	Cut & sew apparel mfg	6	21	16	g	D	D	D	D	D	D	D	1 507
31521	Cut & sew apparel contractors	3	8	6	553	9 457	514	1 025	7 821	13 178	1 663	14 777	226
315212	Women's, girls', & infants' cut & sew apparel contractors	3	8	6	553	9 457	514	1 025	7 821	13 178	1 663	14 777	226
31522	Men's & boys' cut & sew apparel mfg	7	4	4	1 277	30 921	1 132	2 575	24 933	61 997	61 863	123 807	1 195
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	7	3	3	g	D	D	D	D	D	D	D	D
31523	Women's & girls' cut & sew apparel mfg	—	8	5	f	D	D	D	D	D	D	D	D
325	Chemical mfg	—	4	1	f	D	D	D	D	D	D	D	D
3259	Other chemical product mfg	—	2	1	f	D	D	D	D	D	D	D	D
32599	All other chemical product & preparation mfg	—	2	1	f	D	D	D	D	D	D	D	D
325992	Photographic film, paper, plate, & chemical mfg	—	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	—	7	4	g	D	D	D	D	D	D	D	D
3262	Rubber product mfg	—	2	1	g	D	D	D	D	D	D	D	D
32629	Other rubber product mfg	—	2	1	g	D	D	D	D	D	D	D	D
326291	Rubber product mfg for mechanical use	—	2	1	g	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	—	14	5	504	14 879	411	810	10 614	33 218	24 118	57 183	D
335	Electrical equipment, appliance, & component mfg	—	3	2	g	D	D	D	D	D	D	D	D
3359	Other electrical equipment & component mfg	—	2	2	g	D	D	D	D	D	D	D	D
33592	Communication & energy wire & cable mfg	—	1	1	f	D	D	D	D	D	D	D	D
335929	Other communication & energy wire mfg	—	1	1	f	D	D	D	D	D	D	D	D
33599	All other electrical equipment & component mfg	—	1	1	f	D	D	D	D	D	D	D	D
335999	All other miscellaneous electrical equipment & component mfg	—	1	1	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg	2	10	5	f	D	D	D	D	D	D	D	D

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

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NAICS code	Geographic area and industry	All establishments			All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
NEWBURYPORT, MA													
31-33	Manufacturing	1	71	32	2 737	105 458	1 714	3 796	53 012	285 634	191 535	474 918	28 671
332	Fabricated metal product mfg	-	15	6	520	18 921	356	758	11 029	46 836	22 498	68 252	8 064
NEWTON, MA													
31-33	Manufacturing	1	87	27	2 999	110 228	1 801	3 786	50 368	282 327	295 680	542 562	17 878
334	Computer & electronic product mfg	1	17	8	1 252	48 947	670	1 574	18 345	125 100	82 088	208 629	9 343
3344	Semiconductor & other electronic component mfg	1	7	3	633	21 264	333	801	6 783	33 859	19 850	53 883	3 528
33441	Semiconductor & other electronic component mfg	1	7	3	633	21 264	333	801	6 783	33 859	19 850	53 883	3 528
334419	Other electronic component mfg	-	2	1	f	D	D	D	D	D	D	D	D
NORTH ADAMS, MA													
31-33	Manufacturing	-	27	9	866	22 732	686	1 333	15 997	45 824	24 726	71 106	1 499
NORTHAMPTON, MA													
31-33	Manufacturing	1	39	17	1 471	46 308	1 020	1 893	24 293	133 498	132 513	264 495	D
NORTH ANDOVER TOWN, MA													
31-33	Manufacturing	-	37	23	7 063	306 877	4 573	7 562	183 157	1 669 908	1 137 030	2 826 057	56 880
326	Plastics & rubber products mfg	5	4	4	f	D	D	D	D	D	D	D	D
3261	Plastics product mfg	5	4	4	f	D	D	D	D	D	D	D	D
32611	Unsupported plastics film, sheet, & bag mfg ..	6	3	3	f	D	D	D	D	D	D	D	D
326113	Unsupported plastics film & sheet (except packaging) mfg	6	3	3	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	11	8	h	D	D	D	D	D	D	D	33 554
3342	Communications equipment mfg	-	4	3	h	D	D	D	D	D	D	D	D
33421	Telephone apparatus mfg	-	1	1	h	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	-	1	1	h	D	D	D	D	D	D	D	D
335	Electrical equipment, appliance, & component mfg	-	1	1	f	D	D	D	D	D	D	D	D
3353	Electrical equipment mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
33531	Electrical equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
335314	Relay & industrial control mfg	-	1	1	f	D	D	D	D	D	D	D	D
NORTH ATTLEBOROUGH TOWN, MA													
31-33	Manufacturing	-	86	35	2 662	80 168	1 926	4 044	47 470	133 917	681 384	831 416	12 204
339	Miscellaneous mfg	1	36	15	1 208	35 777	829	1 730	18 779	54 302	84 802	143 659	4 365
3399	Other miscellaneous mfg ..	1	31	14	g	D	D	D	D	D	D	D	D
33991	Jewelry & silverware mfg	1	25	12	902	24 898	624	1 303	13 057	37 509	80 041	120 798	D
NORTHBOROUGH TOWN, MA													
31-33	Manufacturing	1	24	10	637	22 359	404	828	10 409	47 362	57 293	104 066	4 112
NORTHBRIDGE TOWN, MA													
31-33	Manufacturing	4	12	6	611	21 041	406	961	11 122	48 433	63 149	111 195	4 752
NORTON TOWN, MA													
31-33	Manufacturing	2	24	11	647	22 815	474	944	13 284	48 843	32 332	80 924	2 539

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		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
NORWOOD TOWN, MA													
31-33	Manufacturing	2	74	27	3 100	146 999	1 792	3 727	59 593	300 302	226 235	523 063	50 231
333	Machinery mfg	-	7	4	1 071	59 984	628	1 396	24 124	55 024	69 335	123 386	D
3333	Commercial & service industry machinery mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
33331	Commercial & service industry machinery mfg	-	1	1	f	D	D	D	D	D	D	D	D
333315	Photographic & photocopying equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	2	12	9	861	43 258	442	892	15 025	136 842	74 079	209 288	D
OXFORD TOWN, MA													
31-33	Manufacturing	1	27	9	656	19 986	497	1 022	13 723	52 439	65 138	117 095	3 277
PALMER TOWN, MA													
31-33	Manufacturing	2	43	15	1 474	49 642	1 074	2 267	30 785	112 292	123 556	236 114	D
PEABODY, MA													
31-33	Manufacturing	-	98	36	4 028	164 526	2 183	4 125	60 669	370 468	318 243	690 123	32 725
334	Computer & electronic product mfg	-	11	7	1 806	76 570	841	1 602	21 547	156 818	107 525	261 321	9 597
3345	Navigational, measuring, medical, & control instruments mfg	-	5	3	g	D	D	D	D	D	D	D	7 804
33451	Navigational, measuring, medical, & control instruments mfg	-	5	3	g	D	D	D	D	D	D	D	7 804
334517	Irradiation apparatus mfg	-	1	1	g	D	D	D	D	D	D	D	D
PEMBROKE TOWN, MA													
31-33	Manufacturing	1	36	8	567	18 747	345	605	8 514	38 481	28 049	65 872	2 530
PEPPERELL TOWN, MA													
31-33	Manufacturing	2	14	6	525	17 195	414	853	11 871	44 581	40 831	85 222	4 147
PITTSFIELD, MA													
31-33	Manufacturing	-	59	22	h	D	D	D	D	D	D	D	17 397
334	Computer & electronic product mfg	-	3	1	g	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	3	1	g	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	-	3	1	g	D	D	D	D	D	D	D	D
334511	Search, detection, navigation, & guidance instrument mfg	-	1	1	g	D	D	D	D	D	D	D	D
PLYMOUTH TOWN, MA													
31-33	Manufacturing	-	45	14	1 700	64 577	1 316	2 772	37 682	133 330	99 225	232 037	15 712
332	Fabricated metal product mfg	-	9	4	636	18 835	546	1 140	12 625	35 890	12 236	47 655	1 729
3321	Forging & stamping	-	1	1	f	D	D	D	D	D	D	D	D
33211	Forging & stamping	-	1	1	f	D	D	D	D	D	D	D	D
332116	Metal stamping	-	1	1	f	D	D	D	D	D	D	D	D
QUINCY, MA													
31-33	Manufacturing	2	72	12	753	25 901	481	917	14 169	54 217	72 727	127 297	4 571
RANDOLPH TOWN, MA													
31-33	Manufacturing	1	39	25	1 586	52 429	1 154	2 354	30 827	134 611	111 822	246 359	12 381

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
RAYNHAM TOWN, MA													
31-33	Manufacturing	-	10	2	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg.....	-	2	1	f	D	D	D	D	D	D	D	D
3391	Medical equipment & supplies mfg	-	2	1	f	D	D	D	D	D	D	D	D
33911	Medical equipment & supplies mfg	-	2	1	f	D	D	D	D	D	D	D	D
339113	Surgical appliance & supplies mfg	-	1	1	f	D	D	D	D	D	D	D	D
ROCKLAND TOWN, MA													
31-33	Manufacturing	2	54	22	1 743	61 805	1 081	2 207	30 824	140 215	96 132	238 224	9 429
SALEM, MA													
31-33	Manufacturing	1	70	18	1 733	54 858	1 074	1 825	26 792	120 791	69 972	190 210	5 826
SAUGUS TOWN, MA													
31-33	Manufacturing	-	31	12	751	26 953	571	1 243	19 134	51 042	64 820	115 281	6 285
SHARON TOWN, MA													
31-33	Manufacturing	1	17	8	704	28 428	488	984	15 274	63 180	49 116	113 508	3 635
SHREWSBURY TOWN, MA													
31-33	Manufacturing	1	39	11	2 094	102 710	734	1 036	16 043	110 480	154 706	261 692	23 322
334	Computer & electronic product mfg.....	-	4	2	g	D	D	D	D	D	D	D	D
3341	Computer & peripheral equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
33411	Computer & peripheral equipment mfg	-	1	1	g	D	D	D	D	D	D	D	D
334112	Computer storage device mfg	-	1	1	g	D	D	D	D	D	D	D	D
SOMERVILLE, MA													
31-33	Manufacturing	4	83	16	2 574	96 183	1 803	3 922	55 714	244 804	179 749	432 982	9 188
322	Paper mfg	-	1	1	f	D	D	D	D	D	D	D	D
3222	Converted paper product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32223	Stationery product mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
322231	Die-cut paper & paperboard office supplies mfg	-	1	1	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	4	3	714	20 605	585	1 129	15 087	52 011	29 756	82 561	D
3261	Plastics product mfg	-	3	3	f	D	D	D	D	D	D	D	D
SOUTHBRIDGE TOWN, MA													
31-33	Manufacturing	1	45	19	2 688	94 631	1 825	3 768	46 108	202 394	94 536	299 383	10 449
332	Fabricated metal product mfg	-	15	5	790	25 904	555	1 239	14 198	64 659	30 015	94 361	D
3322	Cutlery & handtool mfg	-	2	2	f	D	D	D	D	D	D	D	D
33221	Cutlery & handtool mfg ..	-	2	2	f	D	D	D	D	D	D	D	D
333	Machinery mfg	1	9	5	651	21 716	482	959	12 732	53 931	21 060	73 625	3 288
3333	Commercial & service industry machinery mfg ..	1	4	3	534	17 085	391	762	9 318	44 881	17 995	61 714	D
33331	Commercial & service industry machinery mfg	1	4	3	534	17 085	391	762	9 318	44 881	17 995	61 714	D
333314	Optical instrument & lens mfg.....	1	4	3	534	17 085	391	762	9 318	44 881	17 995	61 714	D
339	Miscellaneous mfg.....	-	5	3	f	D	D	D	D	D	D	D	D
3391	Medical equipment & supplies mfg	-	5	3	f	D	D	D	D	D	D	D	D
33911	Medical equipment & supplies mfg	-	5	3	f	D	D	D	D	D	D	D	D
339115	Ophthalmic goods mfg	-	3	3	f	D	D	D	D	D	D	D	D

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
SOUTH HADLEY TOWN, MA													
31-33	Manufacturing	-	21	10	1 158	48 548	722	1 475	24 659	149 989	133 619	280 175	D
325	Chemical mfg	-	1	1	f	D	D	D	D	D	D	D	D
3259	Other chemical product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32599	All other chemical product & preparation mfg	-	1	1	f	D	D	D	D	D	D	D	D
325992	Photographic film, paper, plate, & chemical mfg	-	1	1	f	D	D	D	D	D	D	D	D
SPENCER TOWN, MA													
31-33	Manufacturing	-	16	6	1 207	48 272	811	1 944	26 346	107 299	168 439	274 165	5 991
322	Paper mfg	-	1	1	f	D	D	D	D	D	D	D	D
3222	Converted paper product mfg	-	1	1	f	D	D	D	D	D	D	D	D
32222	Paper bag & coated & treated paper mfg	-	1	1	f	D	D	D	D	D	D	D	D
322222	Coated & laminated paper mfg	-	1	1	f	D	D	D	D	D	D	D	D
SPRINGFIELD, MA													
31-33	Manufacturing	-	174	56	7 199	258 858	5 075	10 244	153 868	665 713	493 045	1 161 058	33 492
311	Food mfg	-	17	5	635	13 081	482	1 206	8 220	62 220	83 539	147 631	D
322	Paper mfg	-	7	3	517	20 361	376	801	11 595	36 193	48 119	83 966	2 097
3222	Converted paper product mfg	-	7	3	517	20 361	376	801	11 595	36 193	48 119	83 966	2 097
323	Printing & related support activities	-	24	5	674	19 672	539	1 136	14 364	79 866	31 938	112 409	1 606
3231	Printing & related support activities	-	24	5	674	19 672	539	1 136	14 364	79 866	31 938	112 409	1 606
32311	Printing	-	23	5	f	D	D	D	D	D	D	D	D
326	Plastics & rubber products mfg	-	7	5	936	56 168	586	1 203	30 891	146 315	108 302	251 072	D
3261	Plastics product mfg	-	7	5	936	56 168	586	1 203	30 891	146 315	108 302	251 072	D
32611	Unsupported plastics film, sheet, & bag mfg ..	-	2	2	f	D	D	D	D	D	D	D	D
326113	Unsupported plastics film & sheet (except packaging) mfg	-	1	1	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	41	13	2 424	88 573	1 701	3 078	54 536	209 290	65 365	276 473	6 802
3329	Other fabricated metal product mfg	-	6	2	g	D	D	D	D	D	D	D	D
33291	Metal valve mfg	-	1	1	f	D	D	D	D	D	D	D	D
332912	Fluid power valve & hose fitting mfg	-	1	1	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg	-	5	1	f	D	D	D	D	D	D	D	D
332994	Small arms mfg	-	1	1	f	D	D	D	D	D	D	D	D
STOUGHTON TOWN, MA													
31-33	Manufacturing	-	64	25	1 753	59 133	1 229	2 344	34 362	116 345	69 790	185 840	4 679

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			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
TAUNTON, MA													
31-33	Manufacturing	1	71	38	4 465	174 427	3 421	7 091	125 874	396 091	317 689	708 998	19 125
323	Printing & related support activities.....	4	6	3	579	20 883	489	1 081	14 892	40 183	24 567	64 631	D
3231	Printing & related support activities.....	4	6	3	579	20 883	489	1 081	14 892	40 183	24 567	64 631	D
32311	Printing	4	6	3	579	20 883	489	1 081	14 892	40 183	24 567	64 631	D
334	Computer & electronic product mfg.....	-	7	5	g	D	D	D	D	D	D	D	8 717
3342	Communications equipment mfg.....	-	1	1	g	D	D	D	D	D	D	D	D
33422	Radio & TV broadcasting & wireless communications equipment mfg.....	-	1	1	g	D	D	D	D	D	D	D	D
334220	Radio & TV broadcasting & wireless communications equipment mfg.....	-	1	1	g	D	D	D	D	D	D	D	D
339	Miscellaneous mfg.....	2	9	6	785	24 292	430	820	11 056	46 811	40 131	86 036	D
3399	Other miscellaneous mfg ..	2	6	4	f	D	D	D	D	D	D	D	D
TEWKSBURY TOWN, MA													
31-33	Manufacturing	-	35	10	1 170	55 995	446	901	15 694	218 291	107 812	337 537	19 524
WAKEFIELD TOWN, MA													
31-33	Manufacturing	2	60	18	2 692	133 538	2 115	3 881	76 885	231 098	208 435	438 420	26 473
334	Computer & electronic product mfg.....	1	13	6	1 253	88 139	1 025	1 877	46 587	137 295	123 966	259 018	20 582
3342	Communications equipment mfg.....	-	2	1	f	D	D	D	D	D	D	D	D
33421	Telephone apparatus mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
WALPOLE TOWN, MA													
31-33	Manufacturing	-	38	9	1 431	54 281	576	1 195	20 787	152 579	90 079	239 777	16 145
325	Chemical mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
3254	Pharmaceutical & medicine mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
325413	In-vitro diagnostic substance mfg.....	-	1	1	f	D	D	D	D	D	D	D	D
WALTHAM, MA													
31-33	Manufacturing	1	161	59	7 431	351 531	4 113	8 660	142 851	622 299	570 323	1 217 176	66 828
325	Chemical mfg.....	-	5	2	g	D	D	D	D	D	D	D	D
3259	Other chemical product mfg.....	-	2	1	g	D	D	D	D	D	D	D	D
32599	All other chemical product & preparation mfg.....	-	2	1	g	D	D	D	D	D	D	D	D
325992	Photographic film, paper, plate, & chemical mfg.....	-	1	1	g	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg.....	2	36	10	520	18 092	422	802	10 307	31 944	15 927	47 805	2 069
333	Machinery mfg.....	4	17	7	708	35 190	428	877	18 376	65 455	54 658	124 174	4 059
334	Computer & electronic product mfg.....	2	31	19	2 238	106 594	904	1 944	30 553	267 175	121 672	388 781	13 802
3345	Navigational, measuring, medical, & control instruments mfg.....	-	11	5	1 463	76 124	476	1 079	19 449	186 914	62 830	248 545	5 409
33451	Navigational, measuring, medical, & control instruments mfg.....	-	11	5	1 463	76 124	476	1 079	19 449	186 914	62 830	248 545	5 409
334513	Industrial process control instrument mfg.....	-	2	2	f	D	D	D	D	D	D	D	D
334516	Analytical laboratory instrument mfg.....	-	2	1	f	D	D	D	D	D	D	D	D
339	Miscellaneous mfg.....	1	19	6	506	18 245	349	699	9 307	49 931	16 264	65 232	2 139

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		E ¹	Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
WAREHAM TOWN, MA													
31-33	Manufacturing	4	32	9	720	22 495	464	934	10 653	48 194	50 352	101 190	3 794
WATERTOWN, MA													
31-33	Manufacturing	-	70	28	4 562	209 063	2 200	4 754	56 080	436 208	208 882	639 885	54 735
333	Machinery mfg	-	1	1	f	D	D	D	D	D	D	D	D
3332	Industrial machinery mfg ..	-	1	1	f	D	D	D	D	D	D	D	D
33329	Other industrial machinery mfg	-	1	1	f	D	D	D	D	D	D	D	D
333298	All other industrial machinery mfg	-	1	1	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	12	9	1 330	56 655	579	1 131	14 329	119 784	47 966	162 877	12 039
3345	Navigational, measuring, medical, & control instruments mfg	-	6	5	560	26 536	179	349	4 938	62 506	22 142	82 315	D
33451	Navigational, measuring, medical, & control instruments mfg	-	6	5	560	26 536	179	349	4 938	62 506	22 142	82 315	D
339	Miscellaneous mfg	-	7	1	g	D	D	D	D	D	D	D	D
3391	Medical equipment & supplies mfg	-	6	1	g	D	D	D	D	D	D	D	D
33911	Medical equipment & supplies mfg	-	6	1	g	D	D	D	D	D	D	D	D
339112	Surgical & medical instrument mfg	-	2	1	g	D	D	D	D	D	D	D	D
WEBSTER TOWN, MA													
31-33	Manufacturing	1	26	8	1 117	35 680	781	1 786	24 611	124 551	105 135	234 613	D
313	Textile mills	1	2	2	f	D	D	D	D	D	D	D	D
WESTBOROUGH TOWN, MA													
31-33	Manufacturing	-	47	20	3 833	181 573	2 070	4 457	71 012	815 969	419 611	1 244 128	54 718
325	Chemical mfg	-	4	2	g	D	D	D	D	D	D	D	D
3254	Pharmaceutical & medicine mfg	-	1	1	g	D	D	D	D	D	D	D	D
32541	Pharmaceutical & medicine mfg	-	1	1	g	D	D	D	D	D	D	D	D
325412	Pharmaceutical preparation mfg	-	1	1	g	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	-	7	3	f	D	D	D	D	D	D	D	D
3343	Audio & video equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
33431	Audio & video equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
334310	Audio & video equipment mfg	-	1	1	f	D	D	D	D	D	D	D	D
WESTFIELD, MA													
31-33	Manufacturing	1	105	36	3 786	132 559	2 748	5 735	82 313	321 101	341 444	634 706	23 809
322	Paper mfg	-	8	7	1 006	31 717	822	1 850	24 412	120 581	214 412	309 006	10 063
3222	Converted paper product mfg	-	8	7	1 006	31 717	822	1 850	24 412	120 581	214 412	309 006	10 063
32223	Stationery product mfg ..	-	2	2	f	D	D	D	D	D	D	D	D
332	Fabricated metal product mfg	-	38	6	892	37 196	627	1 255	22 262	73 748	31 741	104 880	6 438
3327	Machine shops, turned product, & screw, nut, & bolt mfg	-	26	4	564	27 423	400	853	16 923	50 874	22 939	72 176	5 365
33271	Machine shops	-	21	4	522	26 100	373	804	15 984	48 424	21 886	68 667	5 120
332710	Machine shops	-	21	4	522	26 100	373	804	15 984	48 424	21 886	68 667	5 120
333	Machinery mfg	3	17	7	843	32 715	483	1 041	16 144	53 743	41 902	94 407	3 225
WESTFORD TOWN, MA													
31-33	Manufacturing	-	33	15	2 232	93 531	865	1 515	25 377	600 221	345 493	926 542	56 661
334	Computer & electronic product mfg	-	10	7	1 602	70 285	414	685	11 536	546 692	326 471	855 842	52 427
3342	Communications equipment mfg	-	3	3	g	D	D	D	D	D	D	D	D
33421	Telephone apparatus mfg	-	1	1	g	D	D	D	D	D	D	D	D
334210	Telephone apparatus mfg	-	1	1	g	D	D	D	D	D	D	D	D

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
WEST SPRINGFIELD TOWN, MA													
31-33	Manufacturing	2	87	20	2 666	80 101	2 023	4 030	45 121	190 228	180 481	374 317	12 444
322	Paper mfg	-	6	6	601	22 708	425	882	12 308	35 364	59 477	101 782	2 710
WESTWOOD TOWN, MA													
31-33	Manufacturing	5	16	8	2 147	86 371	1 011	2 018	30 432	130 519	117 755	248 883	12 593
334	Computer & electronic product mfg	7	3	3	1 317	51 244	583	1 167	17 230	77 931	61 505	138 269	D
3344	Semiconductor & other electronic component mfg	-	1	1	f	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	-	1	1	f	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) mfg	-	1	1	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	9	2	2	f	D	D	D	D	D	D	D	D
33451	Navigational, measuring, medical, & control instruments mfg	9	2	2	f	D	D	D	D	D	D	D	D
334515	Electricity measuring & testing instrument mfg	9	2	2	f	D	D	D	D	D	D	D	D
WEYMOUTH TOWN, MA													
31-33	Manufacturing	1	49	11	1 137	37 724	754	1 486	18 700	106 560	59 616	168 295	4 812
WILBRAHAM TOWN, MA													
31-33	Manufacturing	-	8	4	g	D	D	D	D	D	D	D	D
311	Food mfg	-	1	1	f	D	D	D	D	D	D	D	D
3115	Dairy product mfg	-	1	1	f	D	D	D	D	D	D	D	D
31152	Ice cream & frozen dessert mfg	-	1	1	f	D	D	D	D	D	D	D	D
311520	Ice cream & frozen dessert mfg	-	1	1	f	D	D	D	D	D	D	D	D
WILMINGTON TOWN, MA													
31-33	Manufacturing	-	109	63	10 057	417 586	5 744	12 035	183 207	1 303 595	776 434	2 063 742	134 200
323	Printing & related support activities	4	16	7	1 019	44 978	775	1 774	28 825	89 700	62 413	152 786	5 698
3231	Printing & related support activities	4	16	7	1 019	44 978	775	1 774	28 825	89 700	62 413	152 786	5 698
32311	Printing	4	15	7	g	D	D	D	D	D	D	D	D
323110	Commercial lithographic printing ..	2	9	4	520	25 727	386	909	16 962	48 942	32 508	82 180	1 184
332	Fabricated metal product mfg	-	18	7	1 200	69 662	452	775	14 191	208 331	53 300	259 870	D
3329	Other fabricated metal product mfg	-	3	1	f	D	D	D	D	D	D	D	D
33299	All other fabricated metal product mfg	-	2	1	f	D	D	D	D	D	D	D	D
332993	Ammunition (except small arms) mfg	-	1	1	f	D	D	D	D	D	D	D	D
333	Machinery mfg	-	15	9	1 361	57 710	766	1 462	27 362	145 410	105 988	250 253	9 922
3332	Industrial machinery mfg ..	-	4	2	f	D	D	D	D	D	D	D	D
33329	Other industrial machinery mfg	-	3	2	f	D	D	D	D	D	D	D	D

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
31-33	WILMINGTON TOWN, MA—Con.												
	Manufacturing—Con.												
334	Computer & electronic product mfg	-	24	21	4 591	171 387	2 770	6 074	84 222	679 122	318 458	984 969	97 009
3341	Computer & peripheral equipment mfg	1	5	4	714	25 596	338	1 058	8 839	119 726	63 793	185 042	7 285
33411	Computer & peripheral equipment mfg	1	5	4	714	25 596	338	1 058	8 839	119 726	63 793	185 042	7 285
334119	Other computer peripheral equipment mfg	-	3	2	f	D	D	D	D	D	D	D	D
3344	Semiconductor & other electronic component mfg	-	7	6	g	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	-	7	6	g	D	D	D	D	D	D	D	D
334413	Semiconductor & related device mfg ...	-	1	1	g	D	D	D	D	D	D	D	D
334418	Printed circuit assembly (electronic assembly) mfg	-	3	3	f	D	D	D	D	D	D	D	D
3345	Navigational, measuring, medical, & control instruments mfg	-	7	7	1 050	47 251	628	1 310	26 359	107 770	53 563	162 868	D
33451	Navigational, measuring, medical, & control instruments mfg	-	7	7	1 050	47 251	628	1 310	26 359	107 770	53 563	162 868	D
334519	Other measuring & controlling device mfg	-	3	3	706	32 465	485	994	20 687	72 925	38 628	114 049	D
335	Electrical equipment, appliance, & component mfg	-	5	3	599	21 821	339	709	10 538	67 820	110 121	177 721	2 888
	WOBURN, MA												
31-33	Manufacturing	2	195	62	5 778	226 803	3 677	7 166	105 373	526 184	359 588	876 674	45 685
323	Printing & related support activities	5	35	11	763	26 203	565	1 140	14 960	54 620	28 266	82 624	2 738
3231	Printing & related support activities	5	35	11	763	26 203	565	1 140	14 960	54 620	28 266	82 624	2 738
32311	Printing	4	32	9	693	23 621	504	993	12 779	50 453	27 097	77 325	2 291
332	Fabricated metal product mfg	3	32	6	505	19 034	361	721	12 689	40 483	30 140	70 738	1 650
334	Computer & electronic product mfg	1	30	13	1 692	68 601	1 000	1 765	22 861	130 981	59 492	183 703	20 634
3344	Semiconductor & other electronic component mfg	-	13	5	980	33 396	713	1 221	15 245	63 968	29 799	92 283	16 622
33441	Semiconductor & other electronic component mfg	-	13	5	980	33 396	713	1 221	15 245	63 968	29 799	92 283	16 622
334413	Semiconductor & related device mfg ...	-	4	3	647	22 750	471	650	7 895	49 072	13 911	62 044	13 796
339	Miscellaneous mfg	1	20	11	892	33 526	461	828	12 664	109 339	52 703	162 054	5 455
3399	Other miscellaneous mfg ...	-	10	5	655	25 226	321	616	9 319	80 731	44 151	123 913	4 131
33999	All other miscellaneous mfg	-	5	4	583	23 053	280	552	8 585	74 663	40 776	114 191	3 947
	WORCESTER, MA												
31-33	Manufacturing	1	278	115	13 475	528 497	8 780	17 113	260 367	1 210 485	930 773	2 139 533	89 179
312	Beverage & tobacco product mfg	-	2	1	f	D	D	D	D	D	D	D	D
3121	Beverage mfg	-	2	1	f	D	D	D	D	D	D	D	D
31211	Soft drink & ice mfg	-	2	1	f	D	D	D	D	D	D	D	D
312111	Soft drink mfg	-	2	1	f	D	D	D	D	D	D	D	D
322	Paper mfg	-	6	6	553	22 556	415	925	14 498	47 071	58 321	106 277	2 701
3222	Converted paper product mfg	-	6	6	553	22 556	415	925	14 498	47 071	58 321	106 277	2 701
323	Printing & related support activities	-	32	8	635	21 607	448	853	13 296	35 771	22 028	57 751	2 750
3231	Printing & related support activities	-	32	8	635	21 607	448	853	13 296	35 771	22 028	57 751	2 750
32311	Printing	-	25	6	527	18 135	374	732	10 925	30 253	19 990	50 140	D
327	Nonmetallic mineral product mfg	-	7	6	g	D	D	D	D	D	D	D	D
3279	Other nonmetallic mineral product mfg	-	3	3	g	D	D	D	D	D	D	D	D
32791	Abrasive product mfg ...	-	3	3	g	D	D	D	D	D	D	D	D
327910	Abrasive product mfg .	-	3	3	g	D	D	D	D	D	D	D	D

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

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

NAICS code	Geographic area and industry	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Total	With 20 employees or more	Number ²	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
	WORCESTER, MA—Con.												
31-33	Manufacturing—Con.												
332	Fabricated metal product mfg	—	82	33	3 112	117 800	2 323	4 530	71 983	264 708	166 121	435 145	15 362
3321	Forging & stamping	—	6	4	f	D	D	D	D	D	D	D	D
33211	Forging & stamping	—	6	4	f	D	D	D	D	D	D	D	D
3329	Other fabricated metal product mfg	—	13	7	1 268	56 010	799	1 621	29 071	138 288	108 254	251 204	D
33291	Metal valve mfg	—	6	3	f	D	D	D	D	D	D	D	D
332911	Industrial valve mfg	—	5	3	f	D	D	D	D	D	D	D	D
333	Machinery mfg	6	34	12	1 343	55 420	740	1 580	24 329	118 665	96 650	221 417	4 610
3335	Metalworking machinery mfg	8	21	6	974	42 134	486	1 054	17 187	100 545	77 022	175 109	3 367
33351	Metalworking machinery mfg	8	21	6	974	42 134	486	1 054	17 187	100 545	77 022	175 109	3 367
333516	Rolling mill machinery & equipment mfg	9	1	1	f	D	D	D	D	D	D	D	D
334	Computer & electronic product mfg	—	7	5	1 267	56 598	852	1 355	24 682	140 686	122 781	250 953	D
3344	Semiconductor & other electronic component mfg	—	3	2	f	D	D	D	D	D	D	D	D
33441	Semiconductor & other electronic component mfg	—	3	2	f	D	D	D	D	D	D	D	D
334413	Semiconductor & related device mfg	—	1	1	f	D	D	D	D	D	D	D	D
337	Furniture & related product mfg	—	15	5	790	25 961	606	1 063	14 746	55 150	66 324	121 269	4 771
3372	Office furniture (including fixtures) mfg	—	7	4	681	23 300	516	865	12 784	49 854	62 548	112 261	4 509
33721	Office furniture (including fixtures) mfg	—	7	4	681	23 300	516	865	12 784	49 854	62 548	112 261	4 509
	WRENTHAM TOWN, MA												
31-33	Manufacturing	—	11	5	554	28 495	321	718	14 651	60 298	32 057	92 228	3 526

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

²Industries with 500 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 500 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: c–100 to 249 employees; e–250 to 499 employees; f–500 to 999 employees; g–1,000 to 2,499 employees, h–2,500 to 4,999 employees; i–5,000 to 9,999 employees; j–10,000 to 24,999 employees; k–25,000 to 49,999 employees; l–50,000 to 99,999 employees; m–100,000 employees or more.

Table 5. Detailed Statistics for the State: 1997

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

Item	Value	Item	Value
MASSACHUSETTS		MASSACHUSETTS— Con.	
Companies ¹ number . .	9 129	Quantity of electricity purchased for heat and power 1,000 kWh . .	8 520 611
		Quantity of electricity generated less sold for heat and power . . . 1,000 kWh . .	287 824
All establishments number . .	9 554	Total value of shipments \$1,000 . .	77 876 576
Establishments with 1 to 19 employees number . .	6 241	Value of resales \$1,000 . .	4 031 351
Establishments with 20 to 99 employees number . .	2 456	Value added \$1,000 . .	44 337 768
Establishments with 100 employees or more number . .	857	Total inventories, beginning of year \$1,000 . .	10 229 033
All employees number . .	417 135	Finished goods inventories, beginning of year \$1,000 . .	3 245 493
Total compensation ² \$1,000 . .	20 440 393	Work-in-process inventories, beginning of year \$1,000 . .	3 668 946
Annual payroll \$1,000 . .	16 378 989	Materials and supplies inventories, beginning of year \$1,000 . .	3 314 594
Total fringe benefits \$1,000 . .	4 061 404	Total inventories, end of year \$1,000 . .	10 545 790
Production workers, average for year number . .	257 050	Finished goods inventories, end of year \$1,000 . .	3 360 258
Production workers on March 12 number . .	255 636	Work-in-process inventories, end of year \$1,000 . .	3 662 764
Production workers on May 12 number . .	257 309	Materials and supplies inventories, end of year \$1,000 . .	3 522 768
Production workers on August 12 number . .	256 827	Gross book value of total assets at beginning of year \$1,000 . .	28 252 621
Production workers on November 12 number . .	258 428	Total capital expenditures (new and used) \$1,000 . .	3 483 886
Production-worker hours 1,000 . .	520 770	Capital expenditures for buildings and other structures (new and used) \$1,000 . .	593 226
Production-worker wages \$1,000 . .	7 734 767	Capital expenditures for machinery and equipment (new and used) \$1,000 . .	2 890 660
Total cost of materials \$1,000 . .	33 635 803	Total retirements ² \$1,000 . .	1 381 919
Cost of materials, parts, containers, etc., consumed \$1,000 . .	28 335 765	Gross book value of total assets at end of year \$1,000 . .	30 354 588
Cost of resales \$1,000 . .	2 846 249	Total depreciation during year ² \$1,000 . .	2 180 807
Cost of fuels \$1,000 . .	313 315	Total rental payments ² \$1,000 . .	880 024
Cost of purchased electricity \$1,000 . .	710 321	Buildings and other structures rental payments ² \$1,000 . .	471 602
Cost of contract work \$1,000 . .	1 430 153	Machinery and equipment rental payments ² \$1,000 . .	408 422

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

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

Appendix A.

Explanation of Terms

BEGINNING- AND END-OF-YEAR INVENTORIES

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

Inventory Data by Stage of Fabrication

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

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

COST OF MATERIALS

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

Included in this item are:

1. Cost of parts, components, containers, etc.—Includes all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year.
2. Cost of products bought and sold in the same condition.

3. Cost of fuels consumed for heat and power—Includes the cost of materials or fuel consumed, whether purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.
4. Cost of purchased electricity—The cost of purchased electric energy represents the amount actually used during the year for heat and power. In addition, information was collected on the quantity of electric energy generated by the establishment and the quantity of electric energy sold or transferred to other plants of the same company.
5. Cost of contract work—This term applies to work done by others on materials furnished by the manufacturing establishment. The actual cost of the material is to be reported on the cost of materials, parts, and containers line of this item. The term “Contract Work” refers to the fee a company pays to another company to perform a service.

Duplication in Cost of Materials and Value of Shipment

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

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

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

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

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

DEPRECIATION CHARGES FOR FIXED ASSETS

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

EMPLOYEES

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

Production Workers

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

All Other Employees

This item covers nonproduction employees of the manufacturing establishment including those engaged in factory supervision above the line-supervisor level. It includes sales (including driver-salespersons), sales delivery (highway truck drivers and their helpers), advertising, credit, collection, installation and servicing of own products, clerical and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria,

medical, etc.), professional, and technical employees. Also included are employees on the payroll of the manufacturing establishment engaged in the construction of major additions or alterations utilized as a separate work force.

FRINGE BENEFITS

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

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

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

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

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

NUMBER OF ESTABLISHMENTS AND COMPANIES

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

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

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

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

PAYROLL

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

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

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

PRODUCTION-WORKER HOURS

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

QUANTITY OF ELECTRIC ENERGY CONSUMED FOR HEAT AND POWER

Data on the cost of purchased electric energy were collected on all census forms. However, data on the quantity of purchased electric energy were collected only on the

Annual Survey of Manufactures (ASM) form. In addition, information is collected on the quantity of electric energy generated by the establishment and the quantity of electric energy sold or transferred to other plants of the same company.

RENTAL PAYMENTS

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

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

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

RETIREMENTS OF DEPRECIABLE ASSETS

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

TOTAL CAPITAL EXPENDITURES (NEW AND USED)

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

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

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

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

VALUE ADDED

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

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

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

VALUE OF SHIPMENTS

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

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

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

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

Duplication in Cost of Materials and Value of Shipment

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

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

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

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

Appendix B.

NAICS Codes, Titles, and Descriptions

SECTOR 31-33 MANUFACTURING

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

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

The materials, substances, or components transformed by manufacturing establishments are raw materials that are products of agriculture, forestry, fishing, mining, or quarrying as well as products of other manufacturing establishments. The materials used may be purchased directly from producers, obtained through customary trade channels, or secured without recourse to the market by transferring the product from one establishment to another, under the same ownership.

The new product of a manufacturing establishment may be finished in the sense that it is ready for utilization or consumption, or it may be semifinished to become an input for an establishment engaged in further manufacturing. For example, the product of the alumina refinery is the input used in the primary production of aluminum; primary aluminum is the input to an aluminum wire drawing plant; and aluminum wire is the input for a fabricated wire product manufacturing establishment.

The subsectors in the Manufacturing sector generally reflect distinct production processes related to material inputs, production equipment, and employee skills. In the machinery area, where assembling is a key activity, parts and accessories for manufactured products are classified in the industry of the finished manufactured item when they are made for separate sale. For example, a replacement refrigerator door would be classified with refrigerators and an attachment for a piece of metal working

machinery would be classified with metal working machinery. However, components, input from other manufacturing establishments, are classified based on the production function of the component manufacturer. For example, electronic components are classified in Subsector 334, Computer and Electronic Product Manufacturing and stampings are classified in Subsector 332, Fabricated Metal Product Manufacturing.

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

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

Conversely, there are activities that are sometimes considered manufacturing, but which for NAICS are classified in another sector (i.e., not classified as manufacturing). They include:

1. Logging, classified in Sector 11, Agriculture, Forestry, Fishing and Hunting, is considered a harvesting operation;
2. The beneficiating of ores and other minerals, classified in Sector 21, Mining, is considered part of the activity of mining;

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

311 Food Manufacturing

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

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

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

3111 Animal Food Manufacturing

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

31111 Animal Food Manufacturing

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

311111 Dog and Cat Food Manufacturing

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

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

2047 Dog and cat food

311119 Other Animal Food Manufacturing

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

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

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

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

3112 Grain and Oilseed Milling

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

31121 Flour Milling and Malt Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) milling flour or meal from grains or vegetables; (2) preparing flour mixes or doughs from flour milled in the same establishment; (3) milling, cleaning, and polishing rice; and (4) manufacturing malt from barley, rye, or other grains.

311211 Flour Milling

This U.S. industry comprises establishments primarily engaged in (1) milling flour or meal from grains (except rice) or vegetables and/or (2) milling flour and preparing flour mixes or doughs.

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

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

2041 Flour and other grain mill products

311212 Rice Milling

This U.S. industry comprises establishments primarily engaged in one of the following: (1) milling rice; (2) cleaning and polishing rice; or (3) milling, cleaning, and polishing rice. The establishments in this industry may package the rice they mill with other ingredients.

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

2044 Rice milling

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

311213 Malt Manufacturing

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

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

2083 Malt

31122 Starch and Vegetable Fats and Oils Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) wet milling corn and vegetables; (2) crushing oilseeds and tree nuts; (3) refining and/or blending vegetable oils; (4) manufacturing shortening and margarine; and (5) blending purchased animal fats with vegetable fats.

311221 Wet Corn Milling

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

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

2046 Wet corn milling

311222 Soybean Processing

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

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

2075 Soybean oil mills (pt)

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

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

311223 Other Oilseed Processing

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

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

2074 Cottonseed oil mills (pt)

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

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

311225 Fats and Oils Refining and Blending

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing shortening and margarine from purchased fats and oils; (2) refining and/or blending vegetable, oilseed, and tree nut oils from purchased oils; and (3) blending purchased animal fats with purchased vegetable fats.

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

2074 Cottonseed oil mills (pt)

2075 Soybean oil mills (pt)

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

2077 Animal and marine fats and oil (pt)

2079 Shortening and cooking oils

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

31123 Breakfast Cereal Manufacturing

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

311230 Breakfast Cereal Manufacturing

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

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

2043 Cereal breakfast foods (pt)

3113 Sugar and Confectionery Product Manufacturing

This industry group comprises (1) establishments that process agricultural inputs, such as sugarcane, beet, and cacao, to give rise to a new product (sugar or chocolate) and (2) those that begin with sugar and chocolate and process these further.

31131 Sugar Manufacturing

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

311311 Sugarcane Mills

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

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

2061 Raw cane sugar

311312 Cane Sugar Refining

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

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

2062 Cane sugar refining

311313 Beet Sugar Manufacturing

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

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

2063 Beet sugar

31132 Chocolate and Confectionery Manufacturing From Cacao Beans

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

311320 Chocolate and Confectionery Manufacturing From Cacao Beans

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

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

2066 Chocolate and cocoa products

31133 Confectionery Manufacturing From Purchased Chocolate

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

311330 Confectionery Manufacturing From Purchased Chocolate

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

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

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

5441 Candy, nut, and confectionery stores (pt)

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

3113301 Chocolate and Chocolate-type Confectionery Retail – Manufacturer

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

3113302 Chocolate and Chocolate-type Confectionery – Manufacturer

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

31134 Nonchocolate Confectionery Manufacturing

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

311340 Nonchocolate Confectionery Manufacturing

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

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

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

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

5441 Candy, nut, and confectionery stores (pt)

3113401 Nonchocolate-Type Confectionery Products Retail – Manufacturer

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

3113402 Nonchocolate-Type Confectionery Products – Manufacturer

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

3114 Fruit and Vegetable Preserving and Specialty Food Manufacturing

This industry group includes (1) establishments that freeze food and (2) those that use preservation processes, such as pickling, canning, and dehydrating. Both types begin their production process with inputs of vegetable or animal origin.

31141 Frozen Food Manufacturing

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

311411 Frozen Fruit, Juice, and Vegetable Manufacturing

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

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

2037 Frozen fruits and vegetables

311412 Frozen Specialty Food Manufacturing

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

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

2038 Frozen specialties, n.e.c.

31142 Fruit and Vegetable Canning, Pickling, and Drying

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

311421 Fruit and Vegetable Canning

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

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

2033 Canned fruits and vegetables

2035 Pickles, sauces, and salad dressings (pt)

311422 Specialty Canning

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

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

2032 Canned specialties (pt)

311423 Dried and Dehydrated Food Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) drying (including freeze-dried) and/or dehydrating fruits, vegetables, and soup mixes and bouillon and/or (2) drying and/or dehydrating ingredients and packaging them with other purchased ingredients, such as rice and dry pasta.

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

2034 Dehydrated fruits, vegetables, and soups (pt)

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

3115 Dairy Product Manufacturing

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

31151 Dairy Product (Except Frozen) Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing dairy products (except frozen) from raw milk and/or processed milk products; (2) manufacturing dairy substitutes (except frozen) from soybeans and other nondairy substances; and (3) manufacturing dry, condensed, concentrated, and evaporated dairy and dairy substitute products.

311511 Fluid Milk Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing processed milk products, such as pasteurized milk or cream and sour cream and/or (2) manufacturing fluid milk dairy substitutes from soybeans and other nondairy substances.

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

2026 Fluid milk

311512 Creamery Butter Manufacturing

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

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

2021 Creamery butter

311513 Cheese Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing cheese products (except cottage cheese) from raw milk and/or processed milk products and/or (2) manufacturing cheese substitutes from soybean and other nondairy substances.

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

2022 Cheese, natural and processed

311514 Dry, Condensed, and Evaporated Dairy Product Manufacturing

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

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

2023 Dry, condensed and evaporated milk

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

31152 Ice Cream and Frozen Dessert Manufacturing

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

311520 Ice Cream and Frozen Dessert Manufacturing

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

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

2024 Ice cream and frozen desserts

3116 Meat Product Manufacturing

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

31161 Animal Slaughtering and Processing

This industry comprises establishments primarily engaged in one or more of the following: (1) slaughtering animals; (2) preparing processed meats and meat byproducts; and (3) rendering and/or refining animal fat, bones, and meat scraps. This industry includes establishments primarily engaged in assembly cutting and packing of meats (i.e., boxed meats) from purchased carcasses.

311611 Animal (Except Poultry) Slaughtering

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

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

2011 Meat packing plants

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

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

311612 Meat Processed From Carcasses

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

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

2013 Sausages and other prepared meats

5147 Meat and meat products (pt)

311613 Rendering and Meat Byproduct Processing

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

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

2077 Animal and marine fats and oil (pt)

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

311615 Poultry Processing

This U.S. industry comprises establishments primarily engaged in (1) slaughtering poultry and small game and/or (2) preparing processed poultry and small game meat and meat byproducts.

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

2015 Poultry and egg processing (pt)

3117 Seafood Product Preparation and Packaging

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

31171 Seafood Product Preparation and Packaging

This industry comprises establishments primarily engaged in one or more of the following: (1) canning seafood (including soup); (2) smoking, salting, and drying seafoods; (3) eviscerating fresh fish by removing heads, fins, scales, bones, and entrails; (4) shucking and packing fresh shellfish; (5) processing marine fats and oils; and (6) freezing seafood. Establishments known as “floating factory ships” that are engaged in the gathering and processing of seafood into canned seafood products are included in this industry.

311711 Seafood Canning

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

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

2077 Animal and marine fats and oil (pt)

2091 Canned and cured seafood

311712 Fresh and Frozen Seafood Processing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) eviscerating fresh fish by removing heads, fins, scales, bones, and

entrails; (2) shucking and packing fresh shellfish; (3) manufacturing frozen seafood; and (4) processing fresh and frozen marine fats and oils.

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

2077 Animal and marine fats and oil (pt)

2092 Prepared fresh or frozen fish and seafood

3118 Bakeries and Tortilla Manufacturing

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

31181 Bread and Bakery Product Manufacturing

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

311811 Retail Bakeries

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

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

5461 Retail bakeries (pt)

311812 Commercial Bakeries

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

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

2051 Bread, cake, and related products

2052 Cookies and crackers (pt)

311813 Frozen Cakes, Pies, and Other Pastries Manufacturing

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

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

2053 Frozen bakery products, except bread

31182 Cookie, Cracker, and Pasta Manufacturing

This industry comprises establishments primarily engaged in one of the following: (1) manufacturing cookies and crackers; (2) preparing flour and dough mixes and

dough from flour ground elsewhere; and (3) manufacturing dry pasta. The establishments in this industry may package the dry pasta they manufacture with other ingredients.

311821 Cookie and Cracker Manufacturing

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

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

2052 Cookies and crackers (pt)

311822 Flour Mixes and Dough Manufacturing From Purchased Flour

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

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

2045 Blended and prepared flour

311823 Dry Pasta Manufacturing

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

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

2098 Macaroni and spaghetti

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

31183 Tortilla Manufacturing

This industry comprises establishments primarily engaged in manufacturing tortillas.

311830 Tortilla Manufacturing

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

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

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

3119 Other Food Manufacturing

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

31191 Snack Food Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) salting, roasting, drying, cooking, or canning nuts; (2) processing grains or seeds into snacks; (3) manufacturing peanut butter; and (4) manufacturing potato chips, corn chips, popped popcorn, pretzels (except soft), pork rinds, and similar snacks.

311911 Roasted Nuts and Peanut Butter Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) salting, roasting, drying, cooking, or canning nuts; (2) processing grains or seeds into snacks; and (3) manufacturing peanut butter.

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

2068 Salted and roasted nuts and seeds

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

311919 Other Snack Food Manufacturing

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

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

2052 Cookies and crackers (pt)

2096 Potato chips and similar snacks

31192 Coffee and Tea Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) roasting coffee; (2) manufacturing coffee and tea concentrates (including instant and freeze-dried); (3) blending tea; (4) manufacturing herbal tea; and (5) manufacturing coffee extracts, flavorings, and syrups.

311920 Coffee and Tea Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) roasting coffee; (2) manufacturing coffee and tea concentrates (including instant and freeze-dried); (3) blending tea; (4) manufacturing herbal tea; and (5) manufacturing coffee extracts, flavorings, and syrups.

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

2043 Cereal breakfast foods (pt)

2095 Roasted coffee (pt)

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

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

31193 Flavoring Syrup and Concentrate Manufacturing

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

311930 Flavoring Syrup and Concentrate Manufacturing

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

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

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

31194 Seasoning and Dressing Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing dressings and sauces, such as mayonnaise, salad dressing, vinegar, mustard, horseradish, soy sauce, tarter sauce, Worcestershire sauce, and other prepared sauces (except tomato-based and gravies); (2) manufacturing spices, table salt, seasoning, and flavoring extracts (except coffee and meat), and natural food colorings; and (3) manufacturing dry mix food preparations, such as salad dressing mixes, gravy and sauce mixes, frosting mixes, and other dry mix preparations.

311941 Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing

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

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

2035 Pickles, sauces, and salad dressings (pt)

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

311942 Spice and Extract Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing spices, table salt, seasonings, flavoring extracts (except coffee and meat), and natural food colorings and/or (2) manufacturing dry mix food preparations, such as salad dressing mixes, gravy and sauce mixes, frosting mixes, and other dry mix preparations.

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

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

2095 Roasted coffee (pt)

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

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

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

31199 All Other Food Manufacturing

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

311991 Perishable Prepared Food Manufacturing

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

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

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

311999 All Other Miscellaneous Food Manufacturing

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

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

2015 Poultry slaughtering and processing (pt)

2032 Canned specialties (pt)

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

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

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

312 Beverage and Tobacco Product Manufacturing

Industries in the Beverage and Tobacco Product Manufacturing subsector manufacture beverages and tobacco products. The industry group, Beverage Manufacturing, includes three types of establishments: (1) those that manufacture nonalcoholic beverages; (2) those that manufacture alcoholic beverages through the fermentation process; and (3) those that produce distilled alcoholic beverages. Ice manufacturing, while not a beverage, is included with nonalcoholic beverage manufacturing because it uses the same production process as water purification.

In the case of activities related to the manufacture of beverages, the structure follows the defined productive processes. Brandy, a distilled beverage, was not placed

under distillery product manufacturing, but rather under the NAICS class for winery product manufacturing since the productive process used in the manufacturing of alcoholic grape-based beverages produces both wines (fermented beverage) and brandies (distilled beverage).

The industry group, Tobacco Manufacturing, includes two types of establishments: (1) those engaged in redrying and stemming tobacco and (2) those that manufacture tobacco products, such as cigarettes and cigars.

3121 Beverage Manufacturing

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

31211 Soft Drink and Ice Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing soft drinks; (2) manufacturing ice; and (3) purifying and bottling water.

312111 Soft Drink Manufacturing

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

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

2086 Bottled and canned soft drinks (pt)

312112 Bottled Water Manufacturing

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

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

2086 Bottled and canned soft drinks (pt)

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

312113 Ice Manufacturing

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

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

2097 Manufactured ice

31212 Breweries

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

312120 Breweries

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

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

2082 Malt beverages

31213 Wineries

This industry comprises establishments primarily engaged in one or more of the following: (1) growing grapes and manufacturing wine and brandies; (2) manufacturing wine and brandies from grapes and other fruits grown elsewhere; and (3) blending wines and brandies.

312130 Wineries

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) growing grapes and manufacturing wine and brandies; (2) manufacturing wine and brandies from grapes and other fruits grown elsewhere; and (3) blending wines and brandies.

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

2084 Wines, brandy, and brandy spirits

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

31214 Distilleries

This industry comprises establishments primarily engaged in one or more of the following: (1) distilling potable liquors (except brandies); (2) distilling and blending liquors; and (3) blending and mixing liquors and other ingredients.

312140 Distilleries

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) distilling potable liquors (except brandies); (2) distilling and blending liquors; and (3) blending and mixing liquors and other ingredients.

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

2085 Distilled liquor, except brandy

3122 Tobacco Manufacturing

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

31221 Tobacco Stemming and Redrying

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

312210 Tobacco Stemming and Redrying

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

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

2141 Tobacco stemming and redrying (pt)

31222 Tobacco Product Manufacturing

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

312221 Cigarette Manufacturing

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

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

2111 Cigarettes

312229 Other Tobacco Product Manufacturing

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

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

2121 Cigars

2131 Chewing and smoking tobacco

2141 Tobacco stemming and redrying (pt)

313 Textile Mills

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

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

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

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

3131 Fiber, Yarn, and Thread Mills

This NAICS industry group includes establishments classified in NAICS Industry 31311, Fiber, Yarn, and Thread Mills.

31311 Fiber, Yarn, and Thread Mills

This industry comprises establishments primarily engaged in one or more of the following: (1) spinning yarn; (2) manufacturing thread of any fiber; (3) texturizing, throwing, twisting, and winding purchased yarn or manmade fiber filaments; and (4) producing hemp yarn and further processing into rope or bags.

313111 Yarn Spinning Mills

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

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

2281 Yarn spinning mills

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

313112 Yarn Texturizing, Throwing, and Twisting Mills

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

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

2282 Yarn throwing and winding mills (pt)

3131121 Yarn Texturing, Throwing, and Twisting Mills – Manufacturer

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

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

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

313113 Thread Mills

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

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

- 2284 Thread mills (pt)
- 2299 Textile goods, n.e.c. (pt)

3132 Fabric Mills

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

31321 Broadwoven Fabric Mills

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

313210 Broadwoven Fabric Mills

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

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

- 2211 Weaving mills, cotton
- 2221 Weaving mills, synthetics
- 2231 Weaving and finishing mills, wool (pt)
- 2299 Textile goods, n.e.c. (pt)

31322 Narrow Fabric Mills and Schiffli Machine Embroidery

This industry comprises establishments primarily engaged in one or more of the following: (1) weaving or braiding narrow fabrics; (2) manufacturing Schiffli machine embroideries; and (3) making fabric-covered elastic yarn and thread.

313221 Narrow Fabric Mills

This U.S. industry comprises establishments primarily engaged in (1) weaving or braiding narrow fabrics in their final form or initially made in wider widths that are specially constructed for narrower widths and/or (2) making fabric-covered elastic yarn and thread. Establishments in this industry may weave only; weave and finish; or weave, finish, and further fabricate fabric products

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

- 2241 Narrow fabric mills
- 2299 Textile goods, n.e.c. (pt)

313222 Schiffli Machine Embroidery

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

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

- 2397 Schiffli machine embroideries

31323 Nonwoven Fabric Mills

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

313230 Nonwoven Fabric Mills

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

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

- 2297 Nonwoven fabrics
- 2299 Textile goods, n.e.c. (pt)

31324 Knit Fabric Mills

This industry comprises establishments primarily engaged in one of the following: (1) knitting weft (i.e., circular) and warp (i.e., flat) fabric; (2) knitting and finishing

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

313241 Weft Knit Fabric Mills

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

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

2257 Circular knit fabric mills (pt)

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

3132411 Weft Knit Fabric Mills – Manufacturer

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

3132412 Weft Knit Fabric Mills – Jobber

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

3132413 Weft Knit Fabric Mills – Contractor

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

313249 Other Knit Fabric and Lace Mills

This U.S. industry comprises establishments primarily engaged in one of the following: (1) knitting warp (i.e., flat) fabric; (2) knitting and finishing warp fabric; (3) manufacturing lace; or (4) manufacturing, dyeing, or finishing lace and lace goods. Establishments in this industry may knit only; knit and finish; or knit, finish, and further fabricate fabric products (except apparel).

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

2258 Lace and warp knit fabric mills (pt)

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

3132491 Other Knit Fabric and Lace Mills – Manufacturer

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

3132492 Other Knit Fabric and Lace Mills – Jobber

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

3132493 Other Knit Fabric and Lace Mills – Contractor

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

3133 Textile and Fabric Finishing and Fabric Coating Mills

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

31331 Textile and Fabric Finishing Mills

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

313311 Broadwoven Fabric Finishing Mills

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

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

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

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

3133111 Broadwoven Fabric Finishing Mills – Manufacturer

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

3133112 Broadwoven Fabric Finishing Mills – Converter

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

3133113 Broadwoven Fabric Finishing Mills – Commission Finisher

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

313312 Textile and Fabric Finishing (Except Broadwoven Fabric) Mills

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

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

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

2269 Finishing plants, n.e.c.

2282 Yarn throwing and winding mills (pt)

2284 Thread mills (pt)

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

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

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

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

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

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

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

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

31332 Fabric Coating Mills

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

313320 Fabric Coating Mills

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

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

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

314 Textile Product Mills

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

3141 Textile Furnishings Mills

This NAICS industry group includes establishments classified in the following NAICS Industries: 31411, Carpet and Rug Mills; and 31412, Curtain and Linen Mills.

31411 Carpet and Rug Mills

This industry comprises establishments primarily engaged in (1) manufacturing woven, tufted, and other carpets and rugs, such as art squares, floor mattings, needlepunch carpeting, and door mats and mattings, from textile materials or from twisted paper, grasses, reeds, sisal, jute, or rags and/or (2) finishing carpets and rugs.

314110 Carpet and Rug Mills

This U.S. industry comprises establishments primarily engaged in (1) manufacturing woven, tufted, and other carpets and rugs, such as art squares, floor mattings, needlepunch carpeting, and door mats and mattings, from textile materials or from twisted paper, grasses, reeds, sisal, jute, or rags and/or (2) finishing carpets and rugs.

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

2273 Carpets and rugs

31412 Curtain and Linen Mills

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

314121 Curtain and Drapery Mills

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

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

2391 Curtains and draperies

5714 Drapery and upholstery stores (pt)

314129 Other Household Textile Product Mills

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

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

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

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

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

3149 Other Textile Product Mills

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

31491 Textile Bag and Canvas Mills

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

314911 Textile Bag Mills

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

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

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

2393 Textile bags

314912 Canvas and Related Product Mills

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

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

2394 Canvas and related products

31499 All Other Textile Product Mills

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

314991 Rope, Cordage, and Twine Mills

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

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

2298 Cordage and twine

314992 Tire Cord and Tire Fabric Mills

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

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

2296 Tire cord and fabric

314999 All Other Miscellaneous Textile Product Mills

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

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

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

2395 Pleating and stitching (pt)

2396 Automotive and apparel trimmings (pt)

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

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

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

315 Apparel Manufacturing

Industries in the Apparel Manufacturing subsector group establishments with two distinct manufacturing processes: (1) cut and sew (i.e., purchasing fabric and cutting and sewing to make a garment) and (2) the manufacture of garments in establishments that first knit fabric and then cut and sew the fabric into a garment. The Apparel Manufacturing subsector includes a diverse range of establishments manufacturing full lines of ready-to-wear apparel and custom apparel: apparel contractors, performing cutting or sewing operations on materials owned by others; jobbers performing entrepreneurial functions involved in apparel manufacture; and tailors, manufacturing custom garments for individual clients are all included. Knitting, when done alone, is classified in the

Textile Mills subsector, but when knitting is combined with the production of complete garments, the activity is classified in Apparel Manufacturing.

3151 Apparel Knitting Mills

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

31511 Hosiery and Sock Mills

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

315111 Sheer Hosiery Mills

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

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

2251 Women's hosiery, except socks

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

315119 Other Hosiery and Sock Mills

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

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

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

31519 Other Apparel Knitting Mills

This industry comprises establishments primarily engaged in one of the following: (1) knitting underwear, outerwear, and/or nightwear; (2) knitting fabric and manufacturing underwear, outerwear, and/or nightwear; or (3) knitting, manufacturing, and finishing knit underwear, outerwear, and/or nightwear.

315191 Outerwear Knitting Mills

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) knitting outerwear; (2) knitting fabric and manufacturing outerwear; and (3) knitting, manufacturing, and finishing knit outerwear. Examples of products made in knit outerwear mills are shirts, shorts, sweat suits, sweaters, gloves, and pants.

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

2253 Knit outerwear mills

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

3151911 Outerwear Knitting Mills – Manufacturer

Establishments primarily engaged in knitting outerwear clothing.

3151912 Outerwear Knitting Mills – Jobber

Establishments engaged as knit outerwear jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

3151913 Outerwear Knitting Mills – Contractor

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

315192 Underwear and Nightwear Knitting Mills

This U.S. industry comprises establishments primarily engaged in one of the following: (1) knitting underwear and nightwear; (2) knitting fabric and manufacturing underwear and nightwear; or (3) knitting, manufacturing, and finishing knit underwear and nightwear. Examples of products produced in underwear and nightwear knitting mills are briefs, underwear T-shirts, pajamas, nightshirts, foundation garments, and panties.

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

2254 Knit underwear mills

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

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

3152 Cut and Sew Apparel Manufacturing

This industry group comprises establishments primarily engaged in manufacturing cut and sew apparel from woven fabric or purchased knit fabric. Included in this industry group is a diverse range of establishments manufacturing full lines of ready-to-wear apparel and custom apparel: apparel contractors, performing cutting or sewing operations on materials owned by others; jobbers performing entrepreneurial functions involved in apparel

manufacture; and tailors, manufacturing custom garments for individual clients. Establishments weaving or knitting fabric, without manufacturing apparel, are classified in Subsector 313, Textile Mills.

31521 Cut and Sew Apparel Contractors

This industry comprises establishments commonly referred to as contractors primarily engaged in (1) cutting materials owned by others for apparel and accessories and/or (2) sewing materials owned by others for apparel and accessories.

315211 Men’s and Boys’ Cut and Sew Apparel Contractors

This U.S. industry comprises establishments commonly referred to as contractors primarily engaged in (1) cutting materials owned by others for men’s and boys’ apparel and/or (2) sewing materials owned by others for men’s and boys’ apparel.

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

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

2321 Shirts, men’s and boys’ (pt)

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

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

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

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

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

2384 Robes and dressing gowns (pt)

2385 Waterproof outer garments (pt)

2395 Pleating and stitching (pt)

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

315212 Women’s, Girls’, and Infants’ Cut and Sew Apparel Contractors

This U.S. industry comprises establishments commonly referred to as contractors primarily engaged in (1) cutting materials owned by others for women’s, girls’, and infants’ apparel and accessories and/or (2) sewing materials owned by others for women’s, girls’, and infants’ apparel and accessories.

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

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

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

31522 Men's and Boys' Cut and Sew Apparel Manufacturing

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

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

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

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

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

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

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

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

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

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

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

Establishments primarily engaged in manufacturing men's and boys' suits, overcoats, sport coats, tuxedos, dress uniforms, and other tailored apparel (except fur and leather) from purchased fabric.

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

Establishments engaged as men's and boys' suit, coat, and overcoat jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

315223 Men's and Boys' Cut and Sew Shirt (Except Work Shirt) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing men's and boys' outerwear shirts from purchased fabric. Men's and boys' shirt (except

work shirt) jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included. Unisex outerwear shirts, such as T-shirts and sweatshirts that are sized without specific reference to gender (i.e., adult S, M, L, XL) are included in this industry.

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

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

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

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

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

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

Establishments engaged as men's and boys' shirt (except work shirt) jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

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

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

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

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

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

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

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

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

Establishments engaged as men's and boys' trouser, slack, and jean jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

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

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

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

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

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

Establishments primarily engaged in manufacturing men's and boys' work shirts, work pants (excluding jeans and dungarees), other work clothing, and washable service apparel from purchased fabric.

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

Establishments engaged as men's and boys' work clothing jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

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

This U.S. industry comprises establishments primarily engaged in manufacturing men's and boys' cut and sew outerwear from purchased fabric (except underwear, nightwear, shirts, suits, overcoats and tailored coats, separate trousers and slacks, and work clothing). Men's and boys' other outerwear jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples,

arranging for apparel to be made from their materials, and marketing finished apparel, are included. Unisex sweat-pants and similar garments that are sized without specific reference to gender (i.e., adult S, M, L, XL) are also included in this industry. Examples of products made by these establishments are athletic clothing (except athletic uniforms), bathing suits, down coats, outerwear shorts, windbreakers and jackets, and jogging suits.

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

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

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

2385 Waterproof outer garments (pt)

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

Establishments primarily engaged in manufacturing men's and boys' cut and sew outerwear from purchased fabric (except underwear, nightwear, shirts, suits, overcoats and tailored coats, separate trousers and slacks, and working clothing).

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

Establishments engaged as men's and boys' other outerwear jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

31523 Women's and Girls' Cut and Sew Apparel Manufacturing

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

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

This U.S. industry comprises establishments primarily engaged in manufacturing women's and girls' bras, girdles, and other underwear; lingerie; loungewear; and nightwear from purchased fabric. Women's and girls' lingerie, loungewear, and nightwear jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their

materials, and marketing finished apparel, are included. Examples of products made by these establishments are bathrobes, foundation garments, nightgowns, pajamas, panties, and slips.

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

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

2342 Brassieres and allied garments (pt)

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

2384 Robes and dressing gowns (pt)

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

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

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

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

Establishments engaged as women's and girls' lingerie, loungewear, and nightwear jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

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

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

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

2331 Women's blouses and waists (pt)

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

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

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

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

Establishments engaged as women's and girls' blouse and shirt jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

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

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

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

2335 Women's dresses (pt)

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

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

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

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

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

Establishments engaged as women's and girls' dress jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

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

This U.S. industry comprises establishments primarily engaged in manufacturing women's and girls' suits, pantsuits, skirts, tailored jackets, vests, raincoats, and other tailored coats, (except fur and leather coats) from purchased fabric. Women's and girls' suit, coat, tailored jacket, and skirt jobbers, who perform entrepreneurial

functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel, are included.

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

2337 Women's suits and coats (pt)

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

2385 Waterproof outer garments (pt)

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

Establishments primarily engaged in manufacturing women's and girls' suits, pantsuits, skirts, tailored jackets, vests, raincoats, and other tailored coats, (except fur and leather coats) from purchased fabric.

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

Establishments engaged as women's and girls' suit, coat, tailored jacket, and skirt jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

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

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

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

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

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

2385 Waterproof outer garments (pt)

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

Establishments primarily engaged in manufacturing women's and girls' cut and sew apparel from purchased fabric (except underwear, lingerie, nightwear, blouses, shirts, dresses, suits, tailored coats, tailored jackets, and skirts).

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

Establishments engaged as women's and girls' other outerwear clothing jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel.

31529 Other Cut and Sew Apparel Manufacturing

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

315291 Infants' Cut and Sew Apparel Manufacturing

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

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

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

3152911 Infants' Cut and Sew Apparel Manufacturing – Manufacturer

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

3152912 Infants' Cut and Sew Apparel Manufacturing – Jobbers

Establishments engaged as infants' clothing jobbers, who perform entrepreneurial functions involved in apparel manufacture, including buying raw materials, designing and preparing samples, arranging for apparel to be made from their materials, and marketing finished apparel. For the purposes of classification, the term "infants' apparel" includes apparel for young children of an age not exceeding 24 months.

315292 Fur and Leather Apparel Manufacturing

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

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

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

315299 All Other Cut and Sew Apparel Manufacturing

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

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

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

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

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

3152991 All Other Cut and Sew Apparel Manufacturing – Manufacturer

Establishments primarily engaged in manufacturing cut and sew apparel from purchased fabric (except cut and sew apparel contractors; men's and boys' cut and sew underwear, nightwear, suits, coats, shirts, trousers, work clothing, and other outerwear; women's and girls' lingerie, blouses, shirts, dresses, suits, coats, and other outerwear; infants' apparel; and fur and leather apparel). Examples of products made by these establishments are team athletic uniforms, band uniforms, academic caps and gowns, clerical vestments, and costumes.

3152992 All Other Cut and Sew Apparel Manufacturing – Jobbers

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

3159 Apparel Accessories and Other Apparel Manufacturing

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

31599 Apparel Accessories and Other Apparel Manufacturing

This industry comprises establishments primarily engaged in manufacturing apparel and accessories (except apparel knitting mills, cut and sew apparel contractors, men's and boys' cut and sew apparel, women's and girls' cut and sew apparel, and other cut and sew apparel). Jobbers, who perform entrepreneurial functions involved in apparel accessories manufacture, including buying raw materials, designing and preparing samples, arranging for

apparel accessories to be made from their materials, and marketing finished apparel accessories, are included. Examples of products made by these establishments are belts, caps, gloves (except medical, sporting, safety), hats, and neckties.

315991 Hat, Cap, and Millinery Manufacturing

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

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

2353 Hats, caps, and millinery

315992 Glove and Mitten Manufacturing

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

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

2381 Fabric gloves and mittens

3151 Leather gloves and mittens

315993 Men's and Boys' Neckwear Manufacturing

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

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

2323 Men's and boys' neckwear

315999 Other Apparel Accessories and Other Apparel Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing apparel and apparel accessories (except apparel knitting mills; cut and sew apparel contractors; cut and sew apparel; hats and caps; mittens and

gloves; and men's and boys' neckwear). Jobbers for these products, who perform entrepreneurial functions involved in other apparel and accessory manufacture, including buying raw materials, designing and preparing samples, arranging for other apparel and accessories to be made from their materials, and marketing finished other apparel and accessories, are included. Examples of products made by these establishments are apparel trimmings and findings, belts, women's scarves, suspenders, and waterproof outerwear.

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

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

2385 Waterproof outer garments (pt)

2387 Apparel belts

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

2396 Automotive and apparel trimmings (pt)

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

5699 Miscellaneous apparel and accessory stores (pt)

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

316 Leather and Allied Product Manufacturing

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

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

3161 Leather and Hide Tanning and Finishing

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

31611 Leather and Hide Tanning and Finishing

This industry comprises establishments primarily engaged in one or more of the following: (1) tanning, currying, and finishing hides and skins; (2) having others process hides and skins on a contract basis; and (3) dyeing or dressing furs.

316110 Leather and Hide Tanning and Finishing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) tanning, currying, and finishing hides and skins; (2) having others process hides and skins on a contract basis; and (3) dyeing or dressing furs.

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

3111 Leather tanning and finishing

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

3162 Footwear Manufacturing

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

31621 Footwear Manufacturing

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

316211 Rubber and Plastics Footwear Manufacturing

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

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

Rubber and plastics footwear

316212 House Slipper Manufacturing

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

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

3142 House slippers

316213 Men's Footwear (Except Athletic) Manufacturing

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

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

3143 Men's footwear, except athletic

316214 Women's Footwear (Except Athletic) Manufacturing

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

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

3144 Women's footwear, except athletic

316219 Other Footwear Manufacturing

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

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

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

3169 Other Leather and Allied Product Manufacturing

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

31699 Other Leather and Allied Product Manufacturing

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

316991 Luggage Manufacturing

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

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

3161 Luggage

316992 Women's Handbag and Purse Manufacturing

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

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

3171 Women's handbags and purses

316993 Personal Leather Goods (Except Women's Handbag and Purse) Manufacturing

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

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

3172 Personal leather goods, n.e.c.

316999 All Other Leather Goods Manufacturing

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

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

3131 Footwear cut stock and findings (pt)

3199 Leather goods, n.e.c.

321 Wood Product Manufacturing

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

The Wood Product Manufacturing subsector includes establishments that make wood products from logs and bolts that are sawed and shaped, and establishments that purchase sawed lumber and make wood products. With the exception of sawmills and wood preservation establishments, the establishments are grouped into industries mainly based on the specific products manufactured.

3211 Sawmills and Wood Preservation

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

32111 Sawmills and Wood Preservation

This industry comprises establishments primarily engaged in one or more of the following: (1) sawing dimension lumber, boards, beams, timber, poles, ties, shingles, shakes, siding, and wood chips from logs or bolts; (2) sawing round wood poles, pilings, and posts and treating them with preservatives; and (3) treating wood sawed, planed, or shaped in other establishments with creosote or other preservatives to prevent decay and to protect against fire and insects. Sawmills may plane the rough lumber that they make with a planing machine to achieve smoothness and uniformity of size.

321113 Sawmills

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

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

- 2421 Sawmills and planing mills, general (pt)
- 2429 Special product sawmills, n.e.c. (pt)
- 2439 Structural wood members, n.e.c. (pt)

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

321114 Wood Preservation

This U.S. industry comprises establishments primarily engaged in (1) treating wood sawed, planed, or shaped in other establishments with creosote or other preservatives,

such as chromated copper arsenate, to prevent decay and to protect against fire and insects and/or (2) sawing round wood poles, pilings, and posts and treating them with preservatives.

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

- 2491 Wood preserving

3212 Veneer, Plywood, and Engineered Wood Product Manufacturing

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

32121 Veneer, Plywood, and Engineered Wood Product Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing veneer and/or plywood; (2) manufacturing engineered wood members; and (3) manufacturing reconstituted wood products. This industry includes manufacturing plywood from veneer made in the same establishment or from veneer made in other establishments, and manufacturing plywood faced with nonwood materials, such as plastics or metal.

321211 Hardwood Veneer and Plywood Manufacturing

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

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

- 2435 Hardwood veneer and plywood

321212 Softwood Veneer and Plywood Manufacturing

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

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

- 2436 Softwood veneer and plywood

321213 Engineered Wood Member (Except Truss) Manufacturing

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

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

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

321214 Truss Manufacturing

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

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

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

321219 Reconstituted Wood Product Manufacturing

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

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

2493 Reconstituted wood products

3219 Other Wood Product Manufacturing

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

32191 Millwork

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

321911 Wood Window and Door Manufacturing

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

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

2431 Millwork (pt)

321912 Cut Stock, Resawing Lumber, and Planing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing dimension lumber from purchased lumber; (2) manufacturing dimension stock (i.e., shapes) or cut stock; (3) resawing the output of sawmills; and (4) planing purchased lumber. These establishments generally use woodworking machinery, such as jointers, planers, lathes, and routers to shape wood.

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

2421 Sawmills and planing mills, general (pt)

2426 Hardwood dimension and flooring mills (pt)

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

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

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

321918 Other Millwork (Including Flooring)

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

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

2421 Sawmills and planing mills, general (pt)

2426 Hardwood dimension and flooring mills (pt)

2431 Millwork (pt)

32192 Wood Container and Pallet Manufacturing

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

321920 Wood Container and Pallet Manufacturing

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

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

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

2441 Nailed wood boxes & shoo

2448 Wood pallets and skids

2449 Wood containers, n.e.c.

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

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

32199 All Other Wood Product Manufacturing

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

321991 Manufactured Home (Mobile Home) Manufacturing

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

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

2451 Mobile homes

321992 Prefabricated Wood Building Manufacturing

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

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

2452 Prefabricated wood buildings

321999 All Other Miscellaneous Wood Product Manufacturing

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

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

2421 Sawmills and planing mills, general (pt)

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

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

3131 Footwear cut stock and findings (pt)

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

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

322 Paper Manufacturing

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

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

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

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

The same situation holds with respect to bags. The manufacturing of bags from plastics only, whether or not laminated, is classified in Subsector 326, Plastics and Rubber Products Manufacturing, but all other bag manufacturing is classified in this subsector.

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

3221 Pulp, Paper, and Paperboard Mills

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

32211 Pulp Mills

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

322110 Pulp Mills

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

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

2611 Pulp mills

32212 Paper Mills

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

322121 Paper (Except Newsprint) Mills

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

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

2621 Paper mills (pt)

2676 Sanitary paper products (pt)

3842 Surgical appliances and supplies (pt)

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

3221211 Paper (Except Newsprint) Mills – Integrated Producer

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

3221212 Paper (Except Newsprint) Mills – Nonintegrated Producer

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

322122 Newsprint Mills

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

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

2621 Paper mills (pt)

3221221 Newsprint Mills – Integrated Producer

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

3221222 Newsprint Mills – Nonintegrated Producer

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

32213 Paperboard Mills

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

322130 Paperboard Mills

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

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

2631 Paperboard mills

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

3221301 Paperboard Mills – Integrated Producer

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

3221302 Paperboard Mills – Nonintegrated Producer

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

3222 Converted Paper Product Manufacturing

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

32221 Paperboard Container Manufacturing

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

322211 Corrugated and Solid Fiber Box Manufacturing

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

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

2653 Corrugated and solid fiber boxes

322212 Folding Paperboard Box Manufacturing

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

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

2657 Folding paperboard boxes

322213 Setup Paperboard Box Manufacturing

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

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

2652 Setup paperboard boxes

322214 Fiber Can, Tube, Drum, and Similar Products Manufacturing

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

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

2655 Fiber cans, drums, and similar products

322215 Nonfolding Sanitary Food Container Manufacturing

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

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

2656 Sanitary food containers

32222 Paper Bag and Coated and Treated Paper Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) cutting and coating paper and paperboard; (2) cutting and laminating paper and paperboard and other flexible materials (except plastics film to plastics film); (3) manufacturing bags or multiwall bags or sacks of paper, metal foil, coated paper, or laminates or coated combinations of paper and foil with plastics film; (4) manufacturing laminated aluminum and other converted metal foils from purchased foils; and (5) surface coating paper or paperboard.

322221 Coated and Laminated Packaging Paper and Plastics Film Manufacturing

This U.S. industry comprises establishments primarily engaged in performing one or more of the following activities associated with the manufacturing of packaging materials: (1) cutting and coating paper; and (2) cutting and laminating paper with other flexible materials (except plastics to plastics or foil to paper laminates). The products made in this industry are made from purchased sheet materials and may be printed in the same establishment.

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

2671 Paper - coated and laminated, packaging (pt)

322222 Coated and Laminated Paper Manufacturing

This U.S. industry comprises establishments primarily engaged in performing one or more of the following activities associated with making products designed for purposes other than packaging: (1) cutting and coating paper; (2) cutting and laminating paper and other flexible materials (except plastics film to plastics film); and (3) manufacturing converted aluminum and other metal foils for non-packaging uses from purchased foils. The products made in this industry are made from purchased sheet materials and may be printed in the same establishment.

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

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

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

322223 Plastics, Foil, and Coated Paper Bag Manufacturing

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

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

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

322224 Uncoated Paper and Multiwall Bag Manufacturing

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

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

2674 Bags - uncoated paper and multiwall

322225 Laminated Aluminum Foil Manufacturing for Flexible Packaging Uses

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

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

3497 Metal foil and leaf (pt)

322226 Surface-Coated Paperboard Manufacturing

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

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

2675 Die-cut paper and board (pt)

32223 Stationery Product Manufacturing

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

322231 Die-Cut Paper and Paperboard Office Supplies Manufacturing

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

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

2675 Die-cut paper and board (pt)

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

322232 Envelope Manufacturing

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

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

2677 Envelopes

322233 Stationery, Tablet, and Related Product Manufacturing

This U.S. industry comprises establishments primarily engaged in converting paper and paperboard into products used for writing and similar applications (e.g., loose-leaf fillers, notebooks, pads, stationery, tablets).

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

2678 Stationery products

32229 Other Converted Paper Product Manufacturing

This industry comprises establishments primarily engaged in (1) converting paper and paperboard into products (except containers, bags, coated and treated paper and paperboard, and stationery products), or (2) converting pulp into pulp products, such as disposable diapers, or molded pulp egg cartons, food trays, and dishes. Processes used include laminating or lining purchased paper or paperboard.

322291 Sanitary Paper Product Manufacturing

This U.S. industry comprises establishments primarily engaged in converting purchased sanitary paper stock or wadding into sanitary paper products, such as facial tissues and handkerchiefs, table napkins, toilet paper, towels, disposable diapers, sanitary napkins, and tampons.

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

2676 Sanitary paper products (pt)

3842 Surgical appliances and supplies (pt)

322299 All Other Converted Paper Product Manufacturing

This U.S. industry comprises establishments primarily engaged in converting paper or paperboard into products (except containers, bags, coated and treated paper, stationery products, and sanitary paper products) or converting pulp into pulp products, such as egg cartons, food trays, and other food containers from molded pulp.

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

2675 Die-cut paper and board (pt)

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

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

323 Printing and Related Support Activities

Industries in the Printing and Related Support Activities subsector print products, such as newspapers, books, periodicals, business forms, greeting cards, and other materials, and perform support activities, such as book-binding, platemaking services, and data imaging. The support activities included here are an integral part of the printing industry, and a product (a printing plate, a bound book, or a computer disk or file) that is an integral part of the printing industry is almost always provided by these operations.

Processes used in printing include a variety of methods used to transfer an image from a plate, screen, or computer file to some medium, such as paper, plastics, metal, textile articles, or wood. The most prominent of these methods is to transfer the image from a plate or screen to the medium (lithographic, gravure, screen, and flexographic printing). A rapidly growing new technology uses a computer file to directly “drive” the printing mechanism to create the image and new electrostatic and other types of equipment (digital or nonimpact printing).

In contrast to many other classification systems that locate publishing of printed materials in manufacturing, NAICS classifies the publishing of printed products in Subsector 511, Publishing Industries. Though printing and publishing are often carried out by the same enterprise (a newspaper, for example), it is less and less the case that these distinct activities are carried out in the same establishment. When publishing and printing are done in the same establishment, the establishment is classified in Sector 51, Information, in the appropriate NAICS industry even if the receipts for printing exceed those for publishing.

This subsector includes printing on clothing because the production process for that activity is printing, not clothing manufacturing. For instance, the printing of T-shirts is included in this subsector. In contrast, printing on fabric (or grey goods) is not included. This activity is part of the process of finishing the fabric and is included in the NAICS Textile Mills subsector in Industry 31331, Textile and Fabric Finishing Mills.

3231 Printing and Related Support Activities

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

32311 Printing

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

323110 Commercial Lithographic Printing

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

The data published with NAICS code 3231 10 include the following SIC industries:

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

323111 Commercial Gravure Printing

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

The data published with NAICS code 3231 11 include the following SIC industries:

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

323112 Commercial Flexographic Printing

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

The data published with NAICS code 3231 12 include the following SIC industries:

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

323113 Commercial Screen Printing

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

The data published with NAICS code 3231 13 include the following SIC industries:

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

323114 Quick Printing

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

The data published with NAICS code 3231 14 include the following SIC industries:

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

323115 Digital Printing

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

The data published with NAICS code 3231 15 include the following SIC industry:

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

323116 Manifold Business Form Printing

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

The data published with NAICS code 3231 16 include the following SIC industries:

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

323117 Book Printing

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

The data published with NAICS code 3231 17 include the following SIC industry:

- 2732 Book printing

323118 Blankbook, Looseleaf Binders, and Devices Manufacturing

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

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

2782 Blankbooks and looseleaf binders (pt)

323119 Other Commercial Printing

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

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

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

2771 Greeting cards (pt)

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

32312 Support Activities for Printing

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

323121 Tradebinding and Related Work

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) tradebinding; (2) sample mounting; and (3) postpress services (e.g., book or paper bronzing, die-cutting, edging, embossing, folding, gilding, gluing, indexing).

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

2789 Bookbinding and related work

323122 Prepress Services

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

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

2791 Typesetting

2796 Platemaking services

324 Petroleum and Coal Products Manufacturing

The Petroleum and Coal Products Manufacturing subsector is based on the transformation of crude petroleum and coal into usable products. The dominant process is

petroleum refining that involves the separation of crude petroleum into component products through such techniques as cracking and distillation.

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

3241 Petroleum and Coal Products Manufacturing

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

32411 Petroleum Refineries

This industry comprises establishments primarily engaged in refining crude petroleum into refined petroleum. Petroleum refining involves one or more of the following activities: (1) fractionation; (2) straight distillation of crude oil; and (3) cracking.

324110 Petroleum Refineries

This U.S. industry comprises establishments primarily engaged in refining crude petroleum into refined petroleum. Petroleum refining involves one or more of the following activities: (1) fractionation; (2) straight distillation of crude oil; and (3) cracking.

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

2911 Petroleum refining

32412 Asphalt Paving, Roofing, and Saturated Materials Manufacturing

This industry comprises establishments primarily engaged in (1) manufacturing asphalt and tar paving mixtures and blocks and roofing cements and coatings from purchased asphaltic materials and/or (2) saturating purchased mats and felts with asphalt or tar from purchased asphaltic materials.

32412 Asphalt Paving, Roofing, and Saturated Materials Manufacturing

This industry comprises establishments primarily engaged in (1) manufacturing asphalt and tar paving mixtures and blocks and roofing cements and coatings from purchased asphaltic materials and/or (2) saturating purchased mats and felts with asphalt or tar from purchased asphaltic materials.

324121 Asphalt Paving Mixture and Block Manufacturing

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

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

2951 Asphalt paving mixtures and blocks

324122 Asphalt Shingle and Coating Materials Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) saturating purchased mats and felts with asphalt or tar from purchased asphaltic materials and (2) manufacturing asphalt and tar and roofing cements and coatings from purchased asphaltic materials.

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

2952 Asphalt felts and coatings

32419 Other Petroleum and Coal Products Manufacturing

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

324191 Petroleum Lubricating Oil and Grease Manufacturing

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

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

2992 Lubricating oils and greases

324199 All Other Petroleum and Coal Products Manufacturing

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

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

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

3312 Blast furnaces and steel mills (pt)

325 Chemical Manufacturing

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

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

3251 Basic Chemical Manufacturing

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

32511 Petrochemical Manufacturing

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

325110 Petrochemical Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing acyclic (i.e., aliphatic) hydrocarbons such as ethylene, propylene, and butylene made from refined petroleum or liquid hydrocarbon and/or (2) manufacturing cyclic aromatic hydrocarbons such as benzene, toluene, styrene, xylene, ethyl benzene, and cumene made from refined petroleum or liquid hydrocarbons.

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

2865 Cyclic crudes and intermediates (pt)

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

32512 Industrial Gas Manufacturing

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

325120 Industrial Gas Manufacturing

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

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

2813 Industrial gases

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

32513 Synthetic Dye and Pigment Manufacturing

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

325131 Inorganic Dye and Pigment Manufacturing

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

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

2816 Inorganic pigments (pt)

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

325132 Synthetic Organic Dye and Pigment Manufacturing

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

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

2865 Cyclic crudes and intermediates (pt)

32518 Other Basic Inorganic Chemical Manufacturing

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

325181 Alkalies and Chlorine Manufacturing

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

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

2812 Alkalies and chlorine

325182 Carbon Black Manufacturing

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

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

2816 Inorganic pigments (pt)

2895 Carbon black

325188 All Other Basic Inorganic Chemical Manufacturing

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

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

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

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

32519 Other Basic Organic Chemical Manufacturing

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

325191 Gum and Wood Chemical Manufacturing

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

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

2861 Gum and wood chemicals

325192 Cyclic Crude and Intermediate Manufacturing

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

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

2865 Cyclic crudes and intermediates (pt)

325193 Ethyl Alcohol Manufacturing

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

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

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

325199 All Other Basic Organic Chemical Manufacturing

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

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

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

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

3252 Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing

32521 Resin and Synthetic Rubber Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing synthetic resins, plastics materials, and nonvulcanizable elastomers and mixing and blending resins on a custom basis; (2) manufacturing noncustomized synthetic resins; and (3) manufacturing synthetic rubber.

325211 Plastics Material and Resin Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing resins, plastics materials, and nonvulcanizable thermoplastic elastomers and mixing and blending resins on a custom basis and/or (2) manufacturing noncustomized synthetic resins.

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

2821 Plastics materials and resins

325212 Synthetic Rubber Manufacturing

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

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

2822 Synthetic rubber

32522 Artificial and Synthetic Fibers and Filaments Manufacturing

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

325221 Cellulosic Organic Fiber Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing cellulosic (i.e., rayon and acetate) fibers and filaments in the form of monofilament, filament yarn, staple, or tow or (2) manufacturing and texturing cellulosic fibers and filaments.

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

2823 Cellulosic manmade fibers

325222 Noncellulosic Organic Fiber Manufacturing

This U.S. industry consists of establishments primarily engaged in (1) manufacturing noncellulosic (i.e., nylon, polyolefin, and polyester) fibers and filaments in the form of monofilament, filament yarn, staple, or tow or (2) manufacturing and texturing noncellulosic fibers and filaments.

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

2824 Organic fibers, noncellulosic

3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing

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

32531 Fertilizer Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing nitrogenous or phosphatic fertilizer materials; (2) manufacturing fertilizers from sewage or animal waste; (3) manufacturing nitrogenous or phosphatic materials and mixing with other ingredients into fertilizers; and (4) mixing ingredients made elsewhere into fertilizers.

325311 Nitrogenous Fertilizer Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing nitrogenous fertilizer materials and mixing ingredients

into fertilizers; (2) manufacturing fertilizers from sewage or animal waste; and (3) manufacturing nitrogenous materials and mixing them into fertilizers.

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

2873 Nitrogenous fertilizers

325312 Phosphatic Fertilizer Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing phosphatic fertilizer materials or (2) manufacturing phosphatic materials and mixing them into fertilizers.

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

2874 Phosphatic fertilizers

325314 Fertilizer (Mixing Only) Manufacturing

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

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

2875 Fertilizers, mixing only

32532 Pesticide and Other Agricultural Chemical Manufacturing

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

325320 Pesticide and Other Agricultural Chemical Manufacturing

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

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

2879 Agricultural chemicals, n.e.c.

3254 Pharmaceutical and Medicine Manufacturing

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

32541 Pharmaceutical and Medicine Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing biological and medicinal products; (2) processing (i.e., grading, grinding, and milling) botanical drugs and herbs; (3) isolating active medicinal principals from botanical drugs and herbs; and (4) manufacturing pharmaceutical

products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

325411 Medicinal and Botanical Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing uncompounded medicinal chemicals and their derivatives (i.e., generally for use by pharmaceutical preparation manufacturers) and/or (2) grading, grinding, and milling uncompounded botanicals.

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

2833 Medicinals and botanicals

325412 Pharmaceutical Preparation Manufacturing

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

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

2834 Pharmaceutical preparations

2835 Diagnostic substances (pt)

325413 In-Vitro Diagnostic Substance Manufacturing

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

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

2835 Diagnostic substances (pt)

325414 Biological Product (Except Diagnostic) Manufacturing

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

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

2836 Biological products, except diagnostic

3255 Paint, Coating, and Adhesive Manufacturing

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

32551 Paint and Coating Manufacturing

This industry comprises establishments primarily engaged in (1) mixing pigments, solvents, and binders into paints and other coatings, such as stains, varnishes, lacquers, enamels, shellacs, and water repellent coatings for concrete and masonry, and/or (2) manufacturing allied paint products, such as putties, paint and varnish removers, paint brush cleaners, and frit.

325510 Paint and Coating Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) mixing pigments, solvents, and binders into paints and other coatings, such as stains, varnishes, lacquers, enamels, shellacs, and water repellent coatings for concrete and masonry, and/or (2) manufacturing allied paint products, such as putties, paint and varnish removers, paint brush cleaners, and frit.

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

2851 Paints and allied products

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

32552 Adhesive Manufacturing

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

325520 Adhesive Manufacturing

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

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

2891 Adhesives and sealants

3256 Soap, Cleaning Compound, and Toilet Preparation Manufacturing

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

32561 Soap and Cleaning Compound Manufacturing

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

325611 Soap and Other Detergent Manufacturing

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

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

2841 Soap and other detergents

2844 Toilet preparations (pt)

325612 Polish and Other Sanitation Good Manufacturing

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

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

2842 Polishes and sanitation goods

325613 Surface Active Agent Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing bulk surface active agents for use as wetting agents, emulsifiers, and penetrants, and/or (2) manufacturing textiles and leather finishing agents used to reduce tension or speed the drying process.

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

2843 Surface active agents

32562 Toilet Preparation Manufacturing

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

325620 Toilet Preparation Manufacturing

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

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

2844 Toilet preparations (pt)

3259 Other Chemical Product Manufacturing

This industry group comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals; resins, synthetic rubber, cellulosic and

noncellulosic fibers and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings, and adhesives; soaps and cleaning compounds; and toilet preparations).

32591 Printing Ink Manufacturing

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

325910 Printing Ink Manufacturing

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

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

2893 Printing ink

32592 Explosives Manufacturing

This industry comprises establishments primarily engaged in manufacturing explosives.

325920 Explosives Manufacturing

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

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

2892 Explosives

32599 All Other Chemical Product and Preparation Manufacturing

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

325991 Custom Compounding of Purchased Resins

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

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

3087 Custom compound purchased resins

325992 Photographic Film, Paper, Plate, and Chemical Manufacturing

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

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

3861 Photographic equipment and supplies (pt)

325998 All Other Miscellaneous Chemical Product and Preparation Manufacturing

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

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

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

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

3952 Lead pencils and art goods (pt)

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

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

326 Plastics and Rubber Products Manufacturing

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

Many manufacturing activities use plastics or rubber, for example the manufacture of footwear, or furniture. Typically, the production process of these products

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

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

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

3261 Plastics Product Manufacturing

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

32611 Unsupported Plastics Film, Sheet, and Bag Manufacturing

This industry comprises establishments primarily engaged in (1) converting plastics resins into unsupported plastics film and sheet and/or (2) forming, coating, or laminating plastics film and sheet into plastics bags.

326111 Unsupported Plastics Bag Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) converting plastics resins into plastics bags or (2) forming, coating, or laminating plastics film and sheet into single wall or multiwall plastics bags. Establishments in this industry may print on the bags they manufacture.

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

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

326112 Unsupported Plastics Packaging Film and Sheet Manufacturing

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

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

2671 Paper - coated and laminated, packaging (pt)

326113 Unsupported Plastics Film and Sheet (Except Packaging) Manufacturing

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

The data published with NAICS code 326113 include the following SIC industry:

3081 Unsupported plastics film and sheet

32612 Plastics Pipe, Pipe Fitting, and Unsupported Profile Shape Manufacturing

This industry comprises establishments primarily engaged in manufacturing plastics pipes and pipe fittings, and plastics profile shapes such as rod, tube, and sausage casings.

326121 Unsupported Plastics Profile Shapes Manufacturing

This U.S. industry comprises establishments primarily engaged in converting plastics resins into nonrigid plastics profile shapes (except film, sheet, and bags), such as rod, tube, and sausage casings.

The data published with NAICS code 326121 include the following SIC industry:

3082 Unsupported plastics profile shapes

326122 Plastics Pipe and Pipe Fitting Manufacturing

This U.S. industry comprises establishments primarily engaged in converting plastics resins into rigid plastics pipes and pipe fittings.

The data published with NAICS code 326122 include the following SIC industries:

3084 Plastics pipe

3089 Plastics products, n.e.c. (pt)

32613 Laminated Plastics Plate, Sheet, and Shape Manufacturing

This industry comprises establishments primarily engaged in laminating plastics profile shapes such as plate, sheet (except packaging), and rod. The lamination process generally involves bonding or impregnating profiles with plastics resins and compressing them under heat.

326130 Laminated Plastics Plate, Sheet, and Shape Manufacturing

This U.S. industry comprises establishments primarily engaged in laminating plastics profile shapes such as plate, sheet (except packaging), and rod. The lamination process generally involves bonding or impregnating profiles with plastics resins and compressing them under heat.

The data published with NAICS code 326130 include the following SIC industry:

3083 Laminated plastics plate and sheet

32614 Polystyrene Foam Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing polystyrene foam products.

326140 Polystyrene Foam Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing polystyrene foam products.

The data published with NAICS code 326140 include the following SIC industry:

3086 Plastics foam products (pt)

32615 Urethane and Other Foam Product (Except Polystyrene) Manufacturing

This industry comprises establishments primarily engaged in manufacturing plastics foam products (except polystyrene).

326150 Urethane and Other Foam Product (Except Polystyrene) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing plastics foam products (except polystyrene).

The data published with NAICS code 326150 include the following SIC industry:

3086 Plastics foam products (pt)

32616 Plastics Bottle Manufacturing

This industry comprises establishments primarily engaged in manufacturing plastics bottles.

326160 Plastics Bottle Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing plastics bottles.

The data published with NAICS code 326160 include the following SIC industry:

3085 Plastics bottles

32619 Other Plastics Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing resilient floor covering and other plastics products (except film, sheet, bags, profile shapes, pipes, pipe fittings, laminates, foam products, and bottles).

326191 Plastics Plumbing Fixture Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing plastics or fiberglass plumbing fixtures. Examples of products made by these establishments are plastics or fiberglass bathtubs, hot tubs, portable toilets, and shower stalls.

The data published with NAICS code 326191 include the following SIC industry:

3088 Plastics plumbing fixtures

326192 Resilient Floor Covering Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing resilient floor coverings for permanent installation.

The data published with NAICS code 326192 include the following SIC industries:

3069 Fabricated rubber products, n.e.c. (pt)

3996 Hard surface floor coverings

326199 All Other Plastics Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing plastics products (except film, sheet, bags, profile shapes, pipes, pipe fittings, laminates, foam products, bottles, plumbing fixtures, and resilient floor coverings).

The data published with NAICS code 326199 include the following SIC industries:

3089 Plastics products, n.e.c. (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 326199 include establishments primarily engaged in the manufacture of plastic furniture parts. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3262 Rubber Product Manufacturing

This industry group comprises establishments primarily engaged in processing natural and synthetic or reclaimed rubber materials into intermediate or final products using processes such as vulcanizing, cementing, molding, extruding, and lathe-cutting.

32621 Tire Manufacturing

This industry comprises establishments primarily engaged in manufacturing tires and inner tubes from natural and synthetic rubber and retreading or rebuilding tires.

326211 Tire Manufacturing (Except Retreading)

This U.S. industry comprises establishments primarily engaged in manufacturing tires and inner tubes from natural and synthetic rubber.

The data published with NAICS code 326211 include the following SIC industry:

3011 Tires and inner tubes

326212 Tire Retreading

This U.S. industry comprises establishments primarily engaged in retreading, or rebuilding tires.

The data published with NAICS code 326212 include the following SIC industry:

7534 Tire retreading and repair shops (pt)

32622 Rubber and Plastics Hoses and Belting Manufacturing

This industry comprises establishments primarily engaged in manufacturing rubber hose and/or plastics (reinforced) hose and belting from natural and synthetic rubber and/or plastics resins. Establishments manufacturing garden hoses from purchased hose are included in this industry.

326220 Rubber and Plastics Hoses and Belting Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing rubber hose and/or plastics (reinforced) hose and belting from natural and synthetic rubber and/or plastics resins. Establishments manufacturing garden hoses from purchased hose are included in this industry.

The data published with NAICS code 326220 include the following SIC industry:

3052 Rubber and plastics hose and belting

32629 Other Rubber Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing rubber products (except tires, hoses, and belting) from natural and synthetic rubber.

326291 Rubber Product Manufacturing for Mechanical Use

This U.S. industry comprises establishments primarily engaged in molding, extruding, or lathe-cutting rubber to manufacture rubber goods (except tubing) for mechanical applications. Products of this industry are generally parts for motor vehicles, machinery, and equipment.

The data published with NAICS code 326291 include the following SIC industry:

3061 Mechanical rubber goods

326299 All Other Rubber Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing rubber products (except tires; hoses and belting; and molded, extruded, and lathe-cut rubber goods for mechanical applications) from natural and synthetic rubber.

The data published with NAICS code 326299 include the following SIC industry:

3069 Fabricated rubber products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 326299 include establishments primarily engaged in the manufacture of rubber products including gloves, toys, pants, raincoats, bibs, aprons, bathing caps, life jackets, and wet suits. The NAICS definitions will be fully implemented with the 2002 Economic Census.

327 Nonmetallic Mineral Product Manufacturing

The Nonmetallic Mineral Product Manufacturing subsector transforms mined or quarried nonmetallic minerals, such as sand, gravel, stone, clay, and refractory materials, into products for intermediate or final consumption. Processes used include grinding, mixing, cutting, shaping, and honing. Heat often is used in the process and chemicals are frequently mixed to change the composition, purity, and chemical properties for the intended product. For example, glass is produced by heating silica sand to the melting point (sometimes combined with cullet or recycled glass) and then drawn, floated, or blow molded to the desired shape or thickness. Refractory materials are heated and then formed into bricks or other shapes for use in industrial applications.

The Nonmetallic Mineral Product Manufacturing subsector includes establishments that manufacture products, such as bricks, refractories, ceramic products, and glass and glass products, such as plate glass and containers. Also included are cement and concrete products, lime, gypsum and other nonmetallic mineral products including abrasive products, ceramic plumbing fixtures, statuary, cut stone products, and mineral wool. The products are used in a wide range of activities from construction and heavy and light manufacturing to articles for personal use.

Mining, beneficiating, and manufacturing activities often occur in a single location. Separate receipts will be collected for these activities whenever possible. When receipts cannot be broken out between mining and manufacturing, establishments that mine or quarry nonmetallic minerals, beneficiate the nonmetallic minerals and further

process the nonmetallic minerals into a more finished manufactured product are classified based on the primary activity of the establishment. A mine that manufactures a small amount of finished products will be classified in Sector 21, Mining. An establishment that mines whose primary output is a more-finished manufactured product will be classified in the Manufacturing Sector.

Excluded from the Nonmetallic Mineral Product Manufacturing subsector are establishments that primarily benefit mined nonmetallic minerals. Beneficiation is the process whereby the extracted material is reduced to particles that can be separated into mineral and waste, the former suitable for further processing or direct use. Beneficiation establishments are included in Sector 21, Mining.

3271 Clay Product and Refractory Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 32711, Pottery, Ceramics, and Plumbing Fixture Manufacturing; and 32712, Clay Building Material and Refractories Manufacturing.

32711 Pottery, Ceramics, and Plumbing Fixture Manufacturing

This industry comprises establishments primarily engaged in shaping, molding, glazing, and firing pottery, ceramics, and plumbing fixtures made entirely or partly of clay or other ceramic materials.

327111 Vitreous China Plumbing Fixture and China and Earthenware Bathroom Accessories Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing vitreous china plumbing fixtures and china and earthenware bathroom accessories, such as faucet handles, towel bars, and soap dishes.

The data published with NAICS code 327111 include the following SIC industry:

3261 Vitreous plumbing fixtures

327112 Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing table and kitchen articles, art and ornamental items, and similar vitreous china, fine earthenware, stoneware, coarse earthenware, and pottery products.

The data published with NAICS code 327112 include the following SIC industries:

3262 Vitreous china table and kitchen articles

3263 Fine earthenware table and kitchen articles

3269 Pottery products, n.e.c.

3299 Nonmetallic mineral products, n.e.c. (pt)

327113 Porcelain Electrical Supply Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing porcelain electrical insulators, molded porcelain parts for electrical devices, ferrite or ceramic magnets, and electronic and electrical supplies from nonmetallic minerals, such as clay and ceramic materials.

The data published with NAICS code 327113 include the following SIC industry:

3264 Porcelain electrical supplies

32712 Clay Building Material and Refractories Manufacturing

This industry comprises establishments primarily engaged in shaping, molding, baking, burning, or hardening clay refractories, nonclay refractories, ceramic tile, structural clay tile, brick, and other structural clay building materials.

327121 Brick and Structural Clay Tile Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing brick and structural clay tiles.

The data published with NAICS code 327121 include the following SIC industry:

3251 Brick and structural clay tile

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 327121 include establishments primarily engaged in the manufacture of slumped brick. The NAICS definitions will be fully implemented with the 2002 Economic Census.

327122 Ceramic Wall and Floor Tile Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing ceramic wall and floor tiles.

The data published with NAICS code 327122 include the following SIC industry:

3253 Ceramic wall and floor tile

327123 Other Structural Clay Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing clay sewer pipe, drain tile, flue lining tile, architectural terra-cotta, and other structural clay products.

The data published with NAICS code 327123 include the following SIC industry:

3259 Structural clay products, n.e.c.

327124 Clay Refractory Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing clay refractory, mortar, brick, block, tile, and fabricated clay refractories, such as melting pots. A refractory is a material that will retain its shape and chemical identity when subjected to high temperatures and is used in applications that require extreme resistance to heat, such as furnace linings.

The data published with NAICS code 327124 include the following SIC industry:

3255 Clay refractories

327125 Nonclay Refractory Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing nonclay refractory, mortar, brick, block, tile, and fabricated nonclay refractories such as graphite, magnesite, silica, or alumina crucibles. A refractory is a material that will retain its shape and chemical identity when subjected to high temperatures and is used in applications that require extreme resistance to heat, such as furnace linings.

The data published with NAICS code 327125 include the following SIC industry:

3297 Nonclay refractories

3272 Glass and Glass Product Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 32721, Glass and Glass Product Manufacturing.

32721 Glass and Glass Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing glass and/or glass products. Establishments in this industry may manufacture glass and/or glass products by melting silica sand or cullet, or purchasing glass.

327211 Flat Glass Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing flat glass by melting silica sand or cullet or (2) manufacturing both flat glass and laminated glass by melting silica sand or cullet.

The data published with NAICS code 327211 include the following SIC industry:

3211 Flat glass

327212 Other Pressed and Blown Glass and Glassware Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing glass by melting silica sand or cullet and making pressed, blown, or shaped glass or glassware (except glass packaging containers).

The data published with NAICS code 327212 include the following SIC industry:

3229 Pressed and blown glass, n.e.c.

327213 Glass Container Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing glass packaging containers.

The data published with NAICS code 327213 include the following SIC industry:

3221 Glass containers

327215 Glass Product Manufacturing Made of Purchased Glass

This U.S. industry comprises establishments primarily engaged in remelting, pressing, blowing, or shaping purchased glass.

The data published with NAICS code 327215 include the following SIC industry:

3231 Products of purchased glass

3273 Cement and Concrete Product Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 32731, Cement Manufacturing; 32732, Ready-Mix Concrete Manufacturing; 32733, Concrete Pipe, Brick, and Block Manufacturing; and 32739, Other Concrete Product Manufacturing.

32731 Cement Manufacturing

This industry comprises establishments primarily engaged in manufacturing portland, natural, masonry, pozzalanic, and other hydraulic cements. Cement manufacturing establishments may calcine earths or mine, quarry, manufacture, or purchase lime.

327310 Cement Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing portland, natural, masonry, pozzalanic, and other hydraulic cements. Cement manufacturing establishments may calcine earths or mine, quarry, manufacture, or purchase lime.

The data published with NAICS code 327310 include the following SIC industry:

3241 Cement, hydraulic

32732 Ready-Mix Concrete Manufacturing

This industry comprises establishments, such as batch plants or mix plants, primarily engaged in manufacturing concrete delivered to a purchaser in a plastic and unhardened state. Ready-mix concrete manufacturing establishments may mine, quarry, or purchase sand and gravel.

327320 Ready-Mix Concrete Manufacturing

This U.S. industry comprises establishments, such as batch plants or mix plants, primarily engaged in manufacturing concrete delivered to a purchaser in a plastic and unhardened state. Ready-mix concrete manufacturing establishments may mine, quarry, or purchase sand and gravel.

The data published with NAICS code 327320 include the following SIC industry:

3273 Ready-mixed concrete

32733 Concrete Pipe, Brick, and Block Manufacturing

This industry comprises establishments primarily engaged in manufacturing concrete pipe, brick, and block

327331 Concrete Block and Brick Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing concrete block and brick.

The data published with NAICS code 327331 include the following SIC industry:

3271 Concrete brick and block

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 327331 do not include establishments primarily engaged in the manufacture of slumped brick. The NAICS definitions will be fully implemented with the 2002 Economic Census.

327332 Concrete Pipe Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing concrete pipe.

The data published with NAICS code 327332 include the following SIC industry:

3272 Concrete products, n.e.c. (pt)

32739 Other Concrete Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing concrete products (except block, brick, and pipe).

327390 Other Concrete Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing concrete products (except block, brick, and pipe).

The data published with NAICS code 327390 include the following SIC industry:

3272 Concrete products, n.e.c. (pt)

3274 Lime and Gypsum Product Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 32741, Lime Manufacturing; and 32742, Gypsum Product Manufacturing.

32741 Lime Manufacturing

This industry comprises establishments primarily engaged in manufacturing lime from calcitic limestone, dolomitic limestone, or other calcareous materials, such as coral, chalk, and shells. Lime manufacturing establishments may mine, quarry, collect, or purchase the sources of calcium carbonate.

327410 Lime Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing lime from calcitic limestone, dolomitic limestone, or other calcareous materials, such as coral, chalk, and shells. Lime manufacturing establishments may mine, quarry, collect, or purchase the sources of calcium carbonate.

The data published with NAICS code 327410 include the following SIC industry:

3274 Lime

32742 Gypsum Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing gypsum products such as wall-board, plaster, plasterboard, molding, ornamental moldings, statuary, and architectural plaster work. Gypsum product manufacturing establishments may mine, quarry, or purchase gypsum.

327420 Gypsum Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing gypsum products, such as wall-board, plaster, plasterboard, molding, ornamental moldings, statuary, and architectural plaster work. Gypsum product manufacturing establishments may mine, quarry, or purchase gypsum.

The data published with NAICS code 327420 include the following SIC industries:

3275 Gypsum products

3299 Nonmetallic mineral products, n.e.c. (pt)

3279 Other Nonmetallic Mineral Product Manufacturing

The Other Nonmetallic Mineral Product Manufacturing industry group comprises establishments manufacturing nonmetallic mineral products (except clay products, refractory products, glass products, cement and concrete products, lime, and gypsum products).

32791 Abrasive Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing abrasive grinding wheels of natural or synthetic materials, abrasive-coated products, and other abrasive products

327910 Abrasive Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing abrasive grinding wheels of natural or synthetic materials, abrasive-coated products, and other abrasive products.

The data published with NAICS code 327910 include the following SIC industry:

3291 Abrasive products (pt)

32799 All Other Nonmetallic Mineral Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except pottery, ceramics, and plumbing fixtures; clay building materials and refractories; glass and glass products; cement; ready-mix concrete; concrete products; lime; gypsum products; and abrasive products).

327991 Cut Stone and Stone Product Manufacturing

This U.S. industry comprises establishments primarily engaged in cutting, shaping, and finishing granite, marble, limestone, slate, and other stone for building and miscellaneous uses. Stone product manufacturing establishments may mine, quarry, or purchase stone.

The data published with NAICS code 327991 include the following SIC industry:

3281 Cut stone and stone products

327992 Ground or Treated Mineral and Earth Manufacturing

This U.S. industry comprises establishments primarily engaged in calcining, dead burning, or otherwise processing beyond beneficiation, clays, ceramic and refractory minerals, barite, and miscellaneous nonmetallic minerals.

The data published with NAICS code 327992 include the following SIC industry:

3295 Minerals, ground or treated

327993 Mineral Wool Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing mineral wool and mineral wool (i.e., fiberglass) insulation products made of such siliceous materials as rock, slag, and glass or combinations thereof.

The data published with NAICS code 327993 include the following SIC industry:

3296 Mineral wool

327999 All Other Miscellaneous Nonmetallic Mineral Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except pottery, ceramics, and plumbing fixtures; clay building materials and refractories; glass and glass products; cement; ready-mix concrete; concrete products; lime; gypsum products; abrasive products; cut stone and stone products; ground and treated minerals and earth; and mineral wool).

The data published with NAICS code 327999 include the following SIC industries:

3272 Concrete products, n.e.c. (pt)

3292 Asbestos products (pt)

3299 Nonmetallic mineral products, n.e.c. (pt)

331 Primary Metal Manufacturing

Industries in the Primary Metal Manufacturing subsector smelt and/or refine ferrous and nonferrous metals from ore, pig or scrap, using electrometallurgical and other process metallurgical techniques. Establishments in this subsector also manufacture metal alloys and superalloys by introducing other chemical elements to pure metals. The output of smelting and refining, usually in ingot form, is used in rolling, drawing, and extruding operations to make sheet, strip, bar, rod, or wire, and in molten form to make castings and other basic metal products.

Primary manufacturing of ferrous and nonferrous metals begins with ore or concentrate as the primary input. Establishments manufacturing primary metals from ore and/or concentrate remain classified in the primary smelting, primary refining, or iron and steel mill, industries regardless of the form of their output. Establishments primarily engaged in secondary smelting and/or secondary refining recover ferrous and nonferrous metals from scrap and/or dross. The output of the secondary smelting and/or secondary refining industries is limited to shapes, such as ingot or billet, that will be further processed. Recovery of metals from scrap often occurs in establishments that are primarily engaged in activities, such as rolling, drawing, extruding, or similar processes.

Excluded from the Primary Metal Manufacturing subsector are establishments primarily engaged in manufacturing ferrous and nonferrous forgings (except ferrous forgings made in steel mills) and stampings. Although forging, stamping, and casting are all methods used to make metal shapes, forging and stamping do not use molten metals and are included in Subsector 332, Fabricated Metal Product Manufacturing. Establishments primarily engaged in operating coke ovens are classified in Industry 32419, Other Petroleum and Coal Products Manufacturing.

3311 Iron and Steel Mills and Ferroalloy Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33111, Iron and Steel Mills and Ferroalloy Manufacturing.

33111 Iron and Steel Mills and Ferroalloy Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) direct reduction of iron ore; (2) manufacturing pig iron in molten or solid form; (3) converting pig iron into steel; (4) manufacturing ferroalloys; (5) making steel; (6) making steel and manufacturing shapes (e.g., bar, plate, rod, sheet, strip, wire); and (7) making steel and forming pipe and tube.

331111 Iron and Steel Mills

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) direct reduction of iron ore; (2) manufacturing pig iron in molten or solid form; (3) converting pig iron into steel; (4) making steel; (5) making steel and manufacturing shapes (e.g., bar, plate, rod, sheet, strip, wire); and (6) making steel and forming tube and pipe.

The data published with NAICS code 331111 include the following SIC industries:

3312 Blast furnaces and steel mills (pt)

3399 Primary metal products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 331111 include establishments primarily engaged in the manufacture of ferrous metal powder, paste, and flake. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3311111 Iron and Steel Mills – Fully Integrated

Establishments primarily engaged in smelting iron ore in a blast furnace to produce pig iron in molten or solid form; then converting pig iron into steel by removal of the carbon in the iron through combustion in a basic oxygen or electric furnace; then producing iron and steel basic shapes, such as plates, sheets, strips, and bars, and other related products, such as pipes, tubes, and wire.

3311112 Iron and Steel Mills – Partially Integrated With a Blast Furnace

Establishments primarily engaged in smelting iron ore in a blast furnace to produce pig iron in molten or solid form; then converting pig iron into steel by removal of the carbon in the iron through combustion in a basic oxygen or electric furnace; then producing ingots and/or semfinished shapes, such as blooms, billets, and rods.

3311113 Iron and Steel Mills – Partially Integrated Without a Blast Furnace

Establishments primarily engaged in converting pig iron, direct reduced iron, and/or scrap into steel by removal of the carbon in the iron through combustion in a basic oxygen or electric furnace; then producing iron and steel basic shapes, such as plates, sheets, strips, and bars, and other related products, such as pipes, tubes, and wire.

3311114 Iron and Steel Mills – Nonintegrated

Establishments primarily engaged in producing iron and steel basic shapes, such as plates, sheets, strips, and bars, and other related products, such as pipes, tubes, and wire from purchased ingots and/or semfinished shapes, such as blooms, billets, and rods.

331112 Electrometallurgical Ferroalloy Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electrometallurgical ferroalloys. Ferroalloys add critical elements, such as silicon and manganese for carbon steel and chromium, vanadium, tungsten, titanium, and molybdenum for low- and high-alloy metals. Ferroalloys include iron-rich alloys and more pure forms of elements added during the steel manufacturing process that alter or improve the characteristics of the metal being made.

The data published with NAICS code 331112 include the following SIC industry:

3313 Electrometallurgical products (pt)

3312 Steel Product Manufacturing From Purchased Steel

This industry group comprises establishments primarily engaged in manufacturing iron and steel tube and pipe, drawing steel wire, and rolling or drawing shapes from purchased iron or steel.

33121 Iron and Steel Pipes and Tubes Manufacturing From Purchased Steel

This industry comprises establishments primarily engaged in manufacturing welded, riveted, or seamless pipe and tube from purchased iron or steel.

331210 Iron and Steel Pipes and Tubes Manufacturing From Purchased Steel

This U.S. industry comprises establishments primarily engaged in manufacturing welded, riveted, or seamless pipe and tube from purchased iron or steel.

The data published with NAICS code 331210 include the following SIC industry:

3317 Steel pipe and tubes

33122 Rolling and Drawing of Purchased Steel

This industry comprises establishments primarily engaged in rolling and/or drawing steel shapes, such as plate, sheet, strip, rod, and bar, from purchased steel.

331221 Rolled Steel Shape Manufacturing

This U.S. industry comprises establishments primarily engaged in rolling or drawing shapes (except wire), such as plate, sheet, strip, rod, and bar, from purchased steel.

The data published with NAICS code 331221 include the following SIC industry:

3316 Cold finishing of steel shapes

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 331221 do not include establishments primarily engaged in making coke oven and blast furnace products; in making steel and rolling or drawing steel shapes; or in the making of ferrous metal powder, paste, and flake. The NAICS definitions will be fully implemented with the 2002 Economic Census.

331222 Steel Wire Drawing

This U.S. industry comprises establishments primarily engaged in drawing wire from purchased steel.

The data published with NAICS code 331222 include the following SIC industry:

3315 Steel wire and related products (pt)

3313 Alumina and Aluminum Production and Processing

This NAICS industry group includes establishments classified in NAICS Industry 33131, Alumina and Aluminum Production and Processing.

33131 Alumina and Aluminum Production and Processing

This industry comprises establishments primarily engaged in one or more of the following: (1) refining alumina; (2) making (i.e., the primary production) aluminum from alumina; (3) recovering aluminum from scrap or dross; (4) alloying purchased aluminum; and (5) manufacturing aluminum primary forms (e.g., bar, foil, pipe, plate, rod, sheet, tube, wire).

331311 Alumina Refining

This U.S. industry comprises establishments primarily engaged in refining alumina (i.e., aluminum oxide) generally from bauxite.

The data published with NAICS code 331311 include the following SIC industry:

2819 Industrial inorganic chemicals, n.e.c. (pt)

331312 Primary Aluminum Production

This U.S. industry comprises establishments primarily engaged in (1) making aluminum from alumina and/or (2) making aluminum from alumina and rolling, drawing, extruding, or casting the aluminum they make into primary forms (e.g., bar, billet, ingot, plate, rod, sheet, strip). Establishments in this industry may make primary aluminum or aluminum-based alloys from alumina.

The data published with NAICS code 331312 include the following SIC industry:

3334 Primary aluminum

331314 Secondary Smelting and Alloying of Aluminum

This U.S. industry comprises establishments primarily engaged in (1) recovering aluminum and aluminum alloys from scrap and/or dross (i.e., secondary smelting) and making billet or ingot (except by rolling) and/or (2) manufacturing alloys, powder, paste, or flake from purchased aluminum.

The data published with NAICS code 331314 include the following SIC industries:

3341 Secondary nonferrous metals (pt)

3399 Primary metal products, n.e.c. (pt)

331315 Aluminum Sheet, Plate, and Foil Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) flat rolling or continuous casting sheet, plate, foil, and welded tube from purchased aluminum and/or (2) recovering aluminum from scrap and flat rolling or continuous casting sheet, plate, foil, and welded tube in integrated mills.

The data published with NAICS code 331315 include the following SIC industry:

3353 Aluminum sheet, plate, and foil (pt)

331316 Aluminum Extruded Product Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) extruding aluminum bar, pipe, and tube blooms or extruding or drawing tube from purchased aluminum; and/or (2) recovering aluminum from scrap and extruding bar, pipe, and tube blooms or drawing tube in integrated mills.

The data published with NAICS code 331316 include the following SIC industry:

3354 Aluminum extruded products

331319 Other Aluminum Rolling and Drawing

This U.S. industry comprises establishments primarily engaged in (1) rolling, drawing, or extruding shapes (except flat rolled sheet, plate, foil, and welded tube; extruded rod, bar, pipe, and tube blooms; and drawn or extruded tube) from purchased aluminum and/or (2) recovering aluminum from scrap and rolling, drawing or extruding shapes (except flat rolled sheet, plate, foil, and welded tube; extruded rod, bar, pipe, and tube blooms; and drawn or extruded tube) in integrated mills.

The data published with NAICS code 331319 include the following SIC industries:

3355 Aluminum rolling and drawing, n.e.c.

3357 Nonferrous wire drawing and insulating (pt)

3314 Nonferrous Metal (Except Aluminum) Production and Processing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33141, Nonferrous Metal (Except Aluminum) Smelting and Refining; 33142, Copper Rolling, Drawing, Extruding, and Alloying; and 33149, Nonferrous Metal (Except Copper and Aluminum) Rolling, Drawing, Extruding, and Alloying.

33141 Nonferrous Metal (Except Aluminum) Smelting and Refining

This industry comprises establishments primarily engaged in (1) smelting ores into nonferrous metals and/or (2) the primary refining of nonferrous metals (except aluminum) using electrolytic or other processes.

331411 Primary Smelting and Refining of Copper

This U.S. industry comprises establishments primarily engaged in (1) smelting copper ore and/or (2) the primary refining of copper by electrolytic methods or other processes. Establishments in this industry make primary copper and copper-based alloys, such as brass and bronze, from ore or concentrates.

The data published with NAICS code 331411 include the following SIC industry:

3331 Primary copper

331419 Primary Smelting and Refining of Nonferrous Metal (Except Copper and Aluminum)

This U.S. industry comprises establishments primarily engaged in (1) making (i.e., the primary production) nonferrous metals by smelting ore and/or (2) the primary refining of nonferrous metals by electrolytic methods or other processes.

The data published with NAICS code 331419 include the following SIC industry:

3339 Primary nonferrous metals, n.e.c.

33142 Copper Rolling, Drawing, Extruding, and Alloying

This industry comprises establishments primarily engaged in one or more of the following: (1) recovering copper or copper alloys from scraps; (2) alloying purchased copper; (3) rolling, drawing, or extruding shapes, (e.g., bar, plate, sheet, strip, tube, and wire) from purchased copper; and (4) recovering copper or copper alloys from scrap and rolling drawing, or extruding shapes (e.g., bar, plate, sheet, strip, tube, and wire).

331421 Copper Rolling, Drawing, and Extruding

This U.S. industry comprises establishments primarily engaged in (1) rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, tube (except bare or insulated copper communication or energy wire)) from purchased copper; and/or (2) recovering copper from scrap and rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, tube (except bare or insulated copper communication or energy wire in integrated mills)).

The data published with NAICS code 331421 include the following SIC industry:

3351 Copper rolling and drawing

331422 Copper Wire (Except Mechanical) Drawing

This U.S. industry comprises establishments primarily engaged in drawing or drawing and insulating communication and energy wire and cable from purchased copper or in integrated secondary smelting and wire drawing plants.

The data published with NAICS code 331422 include the following SIC industry:

3357 Nonferrous wire drawing and insulating (pt)

331423 Secondary Smelting, Refining, and Alloying of Copper

This U.S. industry comprises establishments primarily engaged in (1) recovering copper and copper alloys from scrap and/or (2) alloying purchased copper. Establishments in this industry make primary forms, such as ingot, wire bar, cake, and slab from copper or copper alloys, such as brass and bronze.

The data published with NAICS code 331423 include the following SIC industries:

3341 Secondary nonferrous metals (pt)

3399 Primary metal products, n.e.c. (pt)

33149 Nonferrous Metal (Except Copper and Aluminum) Rolling, Drawing, Extruding, and Alloying

This industry comprises establishments primarily engaged in one or more of the following: (1) recovering nonferrous metals (except copper and aluminum) and nonferrous metal alloys from scrap; (2) alloying purchased

nonferrous metals (except copper and aluminum); (3) rolling, drawing, and extruding shapes from purchased nonferrous metals (except copper and aluminum); and (4) recovering nonferrous metals from scrap (except copper and aluminum) and rolling, drawing, or extruding shapes in integrated facilities.

331491 Nonferrous Metal (Except Copper and Aluminum) Rolling, Drawing, and Extruding

This U.S. industry comprises establishments primarily engaged in (1) rolling, drawing, or extruding shapes (e.g., bar, plate, sheet, strip, tube) from purchased nonferrous metals) and/or (2) recovering nonferrous metals from scrap and rolling, drawing, and/or extruding shapes (e.g., bar, plate, sheet, strip, tube) in integrated mills.

The data published with NAICS code 331491 include the following SIC industries:

3356 Nonferrous rolling and drawing, n.e.c.

3357 Nonferrous wire drawing and insulating (pt)

331492 Secondary Smelting, Refining, and Alloying of Nonferrous Metal (Except Copper and Aluminum)

This U.S. industry comprises establishments primarily engaged in (1) alloying purchased nonferrous metals and/or (2) recovering nonferrous metals from scrap. Establishments in this industry make primary forms (e.g., bar, billet, bloom, cake, ingot, slab, slug, wire) using smelting or refining processes.

The data published with NAICS code 331492 include the following SIC industries:

3313 Electrometallurgical products (pt)

3341 Secondary nonferrous metals (pt)

3399 Primary metal products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 331492 include establishments primarily engaged in the manufacture of other nonferrous additive alloys. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3315 Foundries

This industry group comprises establishments primarily engaged in pouring molten metal into molds or dies to form castings. Establishments making castings and further manufacturing, such as machining or assembling, a specific manufactured product are classified in the industry of the finished product. Foundries may perform operations, such as cleaning and deburring, on the castings they manufacture. More involved processes, such as tapping,

threading, milling, or machining to tight tolerances, that transform castings into more finished products are classified elsewhere in the manufacturing sector based on the product being made.

Establishments in this industry group make castings from purchased metals or in integrated secondary smelting and casting facilities. When the production of primary metals is combined with making castings, the establishment is classified in 331 with the primary metal being made.

33151 Ferrous Metal Foundries

This industry comprises establishments primarily engaged in pouring molten iron and steel into molds of a desired shape to make castings. Establishments in this industry purchase iron and steel made in other establishments.

331511 Iron Foundries

This U.S. industry comprises establishments primarily engaged in pouring molten pig iron or iron alloys into molds to manufacture castings, (e.g., cast iron man-hole covers, cast iron pipe, cast iron skillets). Establishments in this industry purchase iron made in other establishments.

The data published with NAICS code 331511 include the following SIC industries:

3321 Gray iron foundries

3322 Malleable iron foundries

331512 Steel Investment Foundries

This U.S. industry comprises establishments primarily engaged in manufacturing steel investment castings. Investment molds are formed by covering a wax shape with a refractory slurry. After the refractory slurry hardens, the wax is melted, leaving a seamless mold. Investment molds provide highly detailed, consistent castings. Establishments in this industry purchase steel made in other establishments.

The data published with NAICS code 331512 include the following SIC industry:

3324 Steel investment foundries

331513 Steel Foundries (Except Investment)

This U.S. industry comprises establishments primarily engaged in manufacturing steel castings (except steel investment castings). Establishments in this industry purchase steel made in other establishments.

The data published with NAICS code 331513 include the following SIC industry:

3325 Steel foundries, n.e.c.

33152 Nonferrous Metal Foundries

This industry comprises establishments primarily engaged in pouring and/or introducing molten nonferrous metal, under high pressure, into metal molds or dies to manufacture castings. Establishments in this industry purchase nonferrous metals made in other establishments.

331521 Aluminum Die-Casting Foundries

This U.S. industry comprises establishments primarily engaged in introducing molten aluminum, under high pressure, into molds or dies to make aluminum die-castings. Establishments in this industry purchase aluminum made in other establishments.

The data published with NAICS code 331521 include the following SIC industry:

3363 Aluminum die-castings

331522 Nonferrous (Except Aluminum) Die-Casting Foundries

This U.S. industry comprises establishments primarily engaged in introducing molten nonferrous metal (except aluminum), under high pressure, into molds to make nonferrous metal die-castings. Establishments in this industry purchase nonferrous metals made in other establishments.

The data published with NAICS code 331522 include the following SIC industry:

3364 Nonferrous die-casting, except aluminum

331524 Aluminum Foundries (Except Die-Casting)

This U.S. industry comprises establishments primarily engaged in pouring molten aluminum into molds to manufacture aluminum castings. Establishments in this industry purchase aluminum made in other establishments.

The data published with NAICS code 331524 include the following SIC industry:

3365 Aluminum foundries

331525 Copper Foundries (Except Die-Casting)

This U.S. industry comprises establishments primarily engaged in pouring molten copper into molds to manufacture copper castings. Establishments in this industry purchase copper made in other establishments.

The data published with NAICS code 331525 include the following SIC industry:

3366 Copper foundries

331528 Other Nonferrous Foundries (Except Die-Casting)

This U.S. industry comprises establishments primarily engaged in pouring molten nonferrous metals (except aluminum and copper) into molds to manufacture nonferrous castings (except aluminum die-castings, nonferrous

(except aluminum) die-castings, aluminum castings, and copper castings). Establishments in this industry purchase nonferrous metals, such as nickel, lead, and zinc, made in other establishments.

The data published with NAICS code 331528 include the following SIC industry:

3369 Nonferrous foundries, n.e.c.

332 Fabricated Metal Product Manufacturing

Industries in the Fabricated Metal Product Manufacturing subsector transform metal into intermediate or end products, other than machinery, computers and electronics, and metal furniture or treating metals and metal formed products fabricated elsewhere. Important fabricated metal processes are forging, stamping, bending, forming, and machining, used to shape individual pieces of metal; and other processes, such as welding and assembling, used to join separate parts together. Establishments in this subsector may use one of these processes or a combination of these processes.

The NAICS structure for this subsector distinguishes the forging and stamping processes in a single industry. The remaining industries, in the subsector, group establishments based on similar combinations of processes used to make products.

The manufacturing performed in the Fabricated Metal Product Manufacturing subsector begins with manufactured metal shapes. The establishments in this sector further fabricate the purchased metal shapes into a product. For instance, the Spring and Wire Product Manufacturing industry starts with wire and fabricates such items.

Within manufacturing there are other establishments that make the same products made by this subsector; only these establishments begin production further back in the production process. These establishments have a more integrated operation. For instance, one establishment may manufacture steel, draw it into wire, and make wire products in the same establishment. Such operations are classified in the Primary Metal Manufacturing subsector.

3321 Forging and Stamping

This NAICS industry group includes establishments classified in NAICS Industry 33211, Forging and Stamping.

33211 Forging and Stamping

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing forgings from purchased metals; (2) manufacturing metal custom roll forming products; (3) manufacturing metal stamped and spun products (except automotive, cans, coins); and (4) manufacturing powder metallurgy products. Establishments making metal forgings, metal stampings, and metal spun products and further manufacturing (e.g., machining, assembling) a specific manufactured product are classified in the industry of the finished

product. Metal forging, metal stamping, and metal spun products establishments may perform surface finishing operations, such as cleaning and deburring, on the products they manufacture.

332111 Iron and Steel Forging

This U.S. industry comprises establishments primarily engaged in manufacturing iron and steel forgings from purchased iron and steel by hammering mill shapes. Establishments making iron and steel forgings and further manufacturing (e.g., machining, assembling) a specific manufactured product are classified in the industry of the finished product. Iron and steel forging establishments may perform surface finishing operations, such as cleaning and deburring, on the forgings they manufacture.

The data published with NAICS code 332111 include the following SIC industry:

3462 Iron and steel forgings

332112 Nonferrous Forging

This U.S. industry comprises establishments primarily engaged in manufacturing nonferrous forgings from purchased nonferrous metals by hammering mill shapes. Establishments making nonferrous forgings and further manufacturing (e.g., machining, assembling) a specific manufactured product are classified in the industry of the finished product. Nonferrous forging establishments may perform surface finishing operations, such as cleaning and deburring, on the forgings they manufacture.

The data published with NAICS code 332112 include the following SIC industry:

3463 Nonferrous forgings

332114 Custom Roll Forming

This U.S. industry comprises establishments primarily engaged in custom roll forming metal products by use of rotary motion of rolls with various contours to bend or shape the products.

The data published with NAICS code 332114 include the following SIC industry:

3449 Miscellaneous metal work (pt)

332115 Crown and Closure Manufacturing

This U.S. industry comprises establishments primarily engaged in stamping metal crowns and closures, such as bottle caps and home canning lids and rings.

The data published with NAICS code 332115 include the following SIC industry:

3466 Crowns and closures

332116 Metal Stamping

This U.S. industry comprises establishments primarily engaged in manufacturing unfinished metal stampings and spinning unfinished metal products (except crowns, cans, closures, automotive, and coins). Establishments making metal stampings and metal spun products and further manufacturing (e.g., machining, assembling) a specific product are classified in the industry of the finished product. Metal stamping and metal spun products establishments may perform surface finishing operations, such as cleaning and deburring, on the products they manufacture.

The data published with NAICS code 332116 include the following SIC industry:

3469 Metal stampings, n.e.c. (pt)

332117 Powder Metallurgy Parts Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing powder metallurgy products by compacting them in a shaped die and sintering. Establishments in this industry generally make a wide range of parts on a job or order basis.

The data published with NAICS code 332117 include the following SIC industry:

3499 Fabricated metal products, n.e.c. (pt)

3322 Cutlery and Handtool Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33221, Cutlery and Handtool Manufacturing.

33221 Cutlery and Handtool Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing nonprecious and precious plated metal cutlery and flatware; (2) manufacturing nonpowered hand and edge tools; (3) manufacturing nonpowered handsaws; (4) manufacturing saw blades, all types (including those for sawing machines); and (5) manufacturing metal kitchen utensils (except cutting-type) and pots and pans (except those manufactured by casting (e.g., cast iron skillet) or stamped without further fabrication).

332211 Cutlery and Flatware (Except Precious) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing nonprecious and precious plated metal cutlery and flatware.

The data published with NAICS code 332211 include the following SIC industries:

3421 Cutlery

3914 Silverware and plated ware (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census—Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332211 do not include establishments primarily engaged in the manufacture of hand-operated clippers for human hair. The NAICS definitions will be fully implemented with the 2002 Economic Census.

332212 Hand and Edge Tool Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing nonpowered hand and edge tools (except saws).

The data published with NAICS code 332212 include the following SIC industries:

- 3423 Hand and edge tools, n.e.c.
- 3523 Farm machinery and equipment (pt)
- 3524 Lawn and garden equipment (pt)
- 3545 Machine tool accessories (pt)
- 3699 Electrical equipment and supplies, n.e.c. (pt)
- 3799 Transportation equipment, n.e.c. (pt)
- 3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census—Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332212 include establishments primarily engaged in the manufacture of wheelbarrows or quality control laser equipment but do not include establishments primarily engaged in the manufacture of tool-type shears or fish wire, an electrical wiring tool. The NAICS definitions will be fully implemented with the 2002 Economic Census.

332213 Saw Blade and Handsaw Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing nonpowered handsaws and/or (2) manufacturing saw blades, all types (including those for power sawing machines).

The data published with NAICS code 332213 include the following SIC industry:

- 3425 Saw blades and handsaws

332214 Kitchen Utensil, Pot, and Pan Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal kitchen utensils (except cutting-type), pots, and pans (except those manufactured by casting (e.g., cast iron skillets) or stamped without further fabrication).

The data published with NAICS code 332214 include the following SIC industry:

- 3469 Metal stampings, n.e.c. (pt)

3323 Architectural and Structural Metals Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33231, Plate Work and Fabricated Structural Product Manufacturing; and 33232, Ornamental and Architectural Metal Products Manufacturing.

33231 Plate Work and Fabricated Structural Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing one or more of the following: (1) prefabricated metal buildings, panels, and sections; (2) structural metal products; and (3) metal plate work products.

332311 Prefabricated Metal Building and Component Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing prefabricated metal buildings, panels, and sections.

The data published with NAICS code 332311 include the following SIC industry:

- 3448 Prefabricated metal buildings

332312 Fabricated Structural Metal Manufacturing

This U.S. industry comprises establishments primarily engaged in fabricating structural metal products, such as concrete reinforcing bars and fabricated bar joists.

The data published with NAICS code 332312 include the following SIC industries:

- 3441 Fabricated structural metal
- 3449 Miscellaneous metal work (pt)

332313 Plate Work Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated metal plate work by cutting, punching, bending, shaping, and welding purchased metal plate.

The data published with NAICS code 332313 include the following SIC industry:

- 3443 Fabricated plate work, boiler shops (pt)

33232 Ornamental and Architectural Metal Products Manufacturing

This industry comprises establishments primarily engaged in manufacturing one or more of the following: (1) metal framed windows (i.e., typically using purchased glass) and metal doors; (2) sheet metal work; and (3) ornamental and architectural metal products.

332321 Metal Window and Door Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal framed windows (i.e., typically using purchased glass) and metal doors. Examples of products made by these establishments are metal door frames; metal framed window and door screens; metal molding and trim (except automotive); and metal curtain walls.

The data published with NAICS code 332321 include the following SIC industries:

- 2499 Wood products, n.e.c. (pt)
- 3442 Metal doors, sash, and trim
- 3449 Miscellaneous metal work (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332321 include establishments primarily engaged in the manufacture of metal finished moldings for mirrors and pictures. The NAICS definitions will be fully implemented with the 2002 Economic Census.

332322 Sheet Metal Work Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing sheet metal work (except stampings).

The data published with NAICS code 332322 include the following SIC industry:

- 3444 Sheet metal work (pt)

332323 Ornamental and Architectural Metal Work Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing ornamental and architectural metal work, such as staircases, metal open steel flooring, fire escapes, railings, and scaffolding.

The data published with NAICS code 332323 include the following SIC industries:

- 3446 Architectural metal work
- 3449 Miscellaneous metal work (pt)
- 3523 Farm machinery and equipment (pt)

3324 Boiler, Tank, and Shipping Container Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33241, Power Boiler and Heat Exchanger Manufacturing; 33242, Metal Tank (Heavy Gauge) Manufacturing; and 33243, Metal Can, Box, and Other Metal Container (Light Gauge) Manufacturing.

33241 Power Boiler and Heat Exchanger Manufacturing

This industry comprises establishments primarily engaged in manufacturing power boilers and heat exchangers. Establishments in this industry may perform installation in addition to manufacturing power boilers and heat exchangers.

332410 Power Boiler and Heat Exchanger Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing power boilers and heat exchangers. Establishments in this industry may perform installation in addition to manufacturing power boilers and heat exchangers.

The data published with NAICS code 332410 include the following SIC industry:

- 3443 Fabricated plate work, boiler shops (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332410 do not include establishments primarily engaged in the manufacture of nuclear control drive mechanisms. The NAICS definitions will be fully implemented with the 2002 Economic Census.

33242 Metal Tank (Heavy Gauge) Manufacturing

This industry comprises establishments primarily engaged in cutting, forming, and joining heavy gauge metal to manufacture tanks, vessels, and other containers.

332420 Metal Tank (Heavy Gauge) Manufacturing

This U.S. industry comprises establishments primarily engaged in cutting, forming, and joining heavy gauge metal to manufacture tanks, vessels, and other containers.

The data published with NAICS code 332420 include the following SIC industry:

- 3443 Fabricated plate work, boiler shops (pt)

33243 Metal Can, Box, and Other Metal Container (Light Gauge) Manufacturing

This industry comprises establishments primarily engaged in forming light gauge metal containers.

332431 Metal Can Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal cans, lids, and ends.

The data published with NAICS code 332431 include the following SIC industry:

- 3411 Metal cans

332439 Other Metal Container Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal (light gauge) containers (except cans).

The data published with NAICS code 332439 include the following SIC industries:

- 3412 Metal barrels, drums, and pails
- 3429 Hardware, n.e.c. (pt)
- 3444 Sheet metal work (pt)
- 3499 Fabricated metal products, n.e.c. (pt)
- 3537 Industrial trucks and tractors (pt)

3325 Hardware Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33251, Hardware Manufacturing.

33251 Hardware Manufacturing

This industry comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated, time locks).

332510 Hardware Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal hardware, such as metal hinges, metal handles, keys, and locks (except coin-operated, time locks).

The data published with NAICS code 332510 include the following SIC industries:

- 3429 Hardware, n.e.c. (pt)
- 3499 Fabricated metal products, n.e.c. (pt)

3326 Spring and Wire Product Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33261, Spring and Wire Product Manufacturing.

33261 Spring and Wire Product Manufacturing

This industry comprises establishments primarily engaged in (1) manufacturing steel springs by forming, such as cutting, bending, and heat winding metal rod or strip stock and/or (2) manufacturing wire springs and fabricated wire products from wire drawn elsewhere (except watch and clock springs).

332611 Spring (Heavy Gauge) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing heavy gauge springs by forming, such as cutting, bending, and heat winding rod or strip stock.

The data published with NAICS code 332611 include the following SIC industry:

- 3493 Steel springs, except wire

332612 Spring (Light Gauge) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing light gauge springs from purchased wire or strip.

The data published with NAICS code 332612 include the following SIC industry:

- 3495 Wire springs (pt)

332618 Other Fabricated Wire Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated wire products (except springs) made from purchased wire.

The data published with NAICS code 332618 include the following SIC industries:

- 3315 Steel wire and related products (pt)
- 3399 Primary metal products, n.e.c. (pt)
- 3496 Miscellaneous fabricated wire products

3327 Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33271, Machine Shops; and 33272, Turned Product and Screw, Nut, and Bolt Manufacturing.

33271 Machine Shops

This industry comprises establishments known as machine shops primarily engaged in machining metal parts on a job or order basis. Generally machine shop jobs are low volume using machine tools, such as lathes (including computer numerically controlled); automatic screw machines; and machines for boring, grinding, and milling.

332710 Machine Shops

This U.S. industry comprises establishments known as machine shops primarily engaged in machining metal parts on a job or order basis. Generally machine shop jobs are low volume using machine tools, such as lathes (including computer numerically controlled); automatic screw machines; and machines for boring, grinding, and milling.

The data published with NAICS code 332710 include the following SIC industry:

- 3599 Industrial machinery, n.e.c. (pt)

33272 Turned Product and Screw, Nut, and Bolt Manufacturing

This industry comprises establishments primarily engaged in (1) machining precision turned products or (2) manufacturing metal bolts, nuts, screws, rivets, and other industrial fasteners. Included in this industry are establishments primarily engaged manufacturing parts for machinery and equipment on a customized basis.

332721 Precision Turned Product Manufacturing

This U.S. industry comprises establishments known as precision turned manufacturers primarily engaged in machining precision products of all materials on a job or order basis. Generally precision turned product jobs are large volume using machines, such as automatic screw machines, rotary transfer machines, computer numerically controlled (CNC) lathes, or turning centers.

The data published with NAICS code 332721 include the following SIC industry:

3451 Screw machine products

332722 Bolt, Nut, Screw, Rivet, and Washer Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal bolts, nuts, screws, rivets, and washers, and other industrial fasteners using machines, such as headers, threaders, and nut forming machines.

The data published with NAICS code 332722 include the following SIC industry:

3452 Bolts, nuts, rivets, and washers

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332722 do not include establishments primarily engaged in the manufacture of turnbuckles and hose clamps. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3328 Coating, Engraving, Heat Treating, and Allied Activities

This NAICS industry group includes establishments classified in NAICS Industry 33281, Coating, Engraving, Heat Treating, and Allied Activities.

33281 Coating, Engraving, Heat Treating, and Allied Activities

This industry comprises establishments primarily engaged in one or more of the following: (1) heat treating metals and metal products; (2) enameling, lacquering, varnishing metals and metal products; (3) hot dip galvanizing metals and metal products; (4) engraving, chasing, or

etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates); (5) powder coating metals and metal products; (6) electroplating, plating, anodizing, coloring, and finishing metals and metal products; and (7) providing other metal surfacing services for the trade. Establishments in this industry coat engravings and heat treat metals and metal formed products fabricated elsewhere.

332811 Metal Heat Treating

This U.S. industry comprises establishments primarily engaged in heat treating, such as annealing, tempering, and brazing, metals and metal products for the trade.

The data published with NAICS code 332811 include the following SIC industry:

3398 Metal heat treating

332812 Metal Coating, Engraving (Except Jewelry and Silverware), and Allied Services to Manufacturers

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) enameling, lacquering, and varnishing metals and metal products; (2) hot dip galvanizing metals and metal products; (3) engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates); (4) powder coating metals and metal products; and (5) providing other metal surfacing services for the trade.

The data published with NAICS code 332812 include the following SIC industry:

3479 Metal coating and allied services (pt)

332813 Electroplating, Plating, Polishing, Anodizing, and Coloring

This U.S. industry comprises establishments primarily engaged in electroplating, plating, anodizing, coloring, buffing, polishing, cleaning, and sandblasting metals and metal products for the trade.

The data published with NAICS code 332813 include the following SIC industry:

3471 Plating and polishing

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332813 do not include establishments primarily engaged in laminating steel. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3329 Other Fabricated Metal Product Manufacturing

This industry group comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metals, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, and nuts and bolts).

33291 Metal Valve Manufacturing

This industry comprises establishments primarily engaged in manufacturing one or more of the following metal valves: (1) industrial valves; (2) fluid power valves and hose fittings; (3) plumbing fixture fittings and trim; and (4) other metal valves and pipe fittings.

332911 Industrial Valve Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing industrial valves and valves for water works and municipal water systems.

The data published with NAICS code 332911 include the following SIC industries:

3491 Industrial valves

332912 Fluid Power Valve and Hose Fitting Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power valves and hose fittings.

The data published with NAICS code 332912 include the following SIC industries:

3492 Fluid power valves and hose fittings

3728 Aircraft parts and equipment, n.e.c. (pt)

332913 Plumbing Fixture Fitting and Trim Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal and plastics plumbing fixture fittings and trim, such as faucets, flush valves, and shower heads.

The data published with NAICS code 332913 include the following SIC industry:

3432 Plumbing fittings and brass goods (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332913 include establishments primarily engaged in the manufacture of lawn hose nozzels. The NAICS definitions will be fully implemented with the 2002 Economic Census.

332919 Other Metal Valve and Pipe Fitting Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal valves (except industrial valves, fluid power valves, fluid power hose fittings, and plumbing fixture fittings and trim).

The data published with NAICS code 332919 include the following SIC industries:

3429 Hardware, n.e.c. (pt)

3494 Valves and pipe fittings, n.e.c. (pt)

3499 Fabricated metal products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332919 do not include establishments primarily engaged in manufacturing lawn hose nozzels. The NAICS definitions will be fully implemented with the 2002 Economic Census.

33299 All Other Fabricated Metal Product Manufacturing

This industry comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metal products, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, nuts and bolts, and metal valves).

332991 Ball and Roller Bearing Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing ball and roller bearings of all materials.

The data published with NAICS code 332991 include the following SIC industry:

3562 Ball and roller bearings

332992 Small Arms Ammunition Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing small arms ammunition.

The data published with NAICS code 332992 include the following SIC industry:

3482 Small arms ammunition

332993 Ammunition (Except Small Arms) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing ammunition (except small arms). Examples of products made by these establishments are bombs, depth charges, rockets (except guided missiles), grenades, mines, and torpedoes.

The data published with NAICS code 332993 include the following SIC industry:

3483 Ammunition, except small arms, n.e.c.

332994 Small Arms Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing small firearms that are carried and fired by the individual.

The data published with NAICS code 332994 include the following SIC industry:

3484 Small arms

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332994 do not include establishments primarily engaged in the manufacture of tranquilizer guns. The NAICS definitions will be fully implemented with the 2002 Economic Census.

332995 Other Ordnance and Accessories Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing ordnance (except small arms) and accessories.

The data published with NAICS code 332995 include the following SIC industry:

3489 Ordnance and accessories, n.e.c.

332996 Fabricated Pipe and Pipe Fitting Manufacturing

This U.S. industry comprises establishments primarily engaged in fabricating (such as cutting, threading and bending) metal pipes and pipe fittings made from purchased metal pipe.

The data published with NAICS code 332996 include the following SIC industries:

3353 Aluminum sheet, plate, and foil (pt)

3498 Fabricated pipe and fittings

332997 Industrial Pattern Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing industrial patterns.

The data published with NAICS code 332997 include the following SIC industry:

3543 Industrial patterns

332998 Enameled Iron and Metal Sanitary Ware Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing enameled iron and metal sanitary ware.

The data published with NAICS code 332998 include the following SIC industry:

3431 Metal sanitary ware

332999 All Other Miscellaneous Fabricated Metal Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing fabricated metal products (except forgings and stampings, cutlery and handtools, architectural and structural metals, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, nuts, and bolts, metal valves, ball and roller bearings, ammunition, small arms and other ordnances, fabricated pipes and pipe fittings, industrial patterns, and enameled iron and metal sanitary ware).

The data published with NAICS code 332999 include the following SIC industries:

3291 Abrasive products (pt)

3432 Plumbing fixture fittings and trim

3494 Valves and pipe fittings, n.e.c. (pt)

3497 Metal foil and leaf (pt)

3499 Fabricated metal products, n.e.c. (pt)

3537 Industrial trucks and tractors (pt)

3599 Industrial machinery, n.e.c. (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332999 do not include establishments primarily engaged in manufacturing fire-place fixtures, traps, handcuffs and leg irons, ladder jacks, or other like metal products, or primarily engaged in manufacturing precious metal hollowware. The NAICS definitions will be fully implemented with the 2002 Economic Census.

333 Machinery Manufacturing

Industries in the Machinery Manufacturing subsector create end products that apply mechanical force, for example, the application of gears and levers, to perform work. Some important processes for the manufacture of machinery are forging, stamping, bending, forming, and machining that are used to shape individual pieces of metal. Processes, such as welding and assembling are used to join separate parts together. Although these processes are similar to those used in metal fabricating establishments, machinery manufacturing is different because it

typically employs multiple metal forming processes in manufacturing the various parts of the machine. Moreover, complex assembly operations are an inherent part of the production process.

In general, design considerations are very important in machinery production. Establishments specialize in making machinery designed for particular applications. Thus, design is considered to be part of the production process for the purpose of implementing NAICS. The NAICS structure reflects this by defining industries and industry groups that make machinery for different applications. A broad distinction exists between machinery that is generally used in a variety of industrial applications (i.e., general-purpose machinery) and machinery that is designed to be used in a particular industry (i.e., special-purpose machinery). Three industry groups consist of special-purpose machinery—Agricultural, Construction, and Mining Machinery Manufacturing; Industrial Machinery Manufacturing; and Commercial and Service Industry Machinery Manufacturing. The other industry groups make general-purpose machinery: Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing; Metalworking Machinery Manufacturing; Engine, Turbine, and Power Transmission Equipment Manufacturing; and Other General-Purpose Machinery Manufacturing.

3331 Agriculture, Construction, and Mining Machinery Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33311, Agricultural Implement Manufacturing; 33312, Construction Machinery Manufacturing; and 33313, Mining and Oil and Gas Field Machinery Manufacturing.

33311 Agricultural Implement Manufacturing

This industry comprises establishments primarily engaged in manufacturing farm machinery and equipment, powered mowing equipment, and other powered home lawn and garden equipment.

333111 Farm Machinery and Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing agricultural and farm machinery and equipment, and other turf and grounds care equipment, including planting, harvesting, and grass mowing equipment (except lawn and garden-type).

The data published with NAICS code 333111 include the following SIC industry:

3523 Farm machinery and equipment (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to

NAICS. Data for NAICS industry 333111 do not include establishments primarily engaged in manufacturing cotton ginning machinery. The NAICS definitions will be fully implemented with the 2002 Economic Census.

333112 Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing powered lawnmowers, lawn and garden tractors, and other home lawn and garden equipment, such as tillers, shredders, and yard vacuums and blowers.

The data published with NAICS code 333112 include the following SIC industry:

3524 Lawn and garden equipment (pt)

33312 Construction Machinery Manufacturing

This industry comprises establishments primarily engaged in manufacturing construction machinery, surface mining machinery, and logging equipment.

333120 Construction Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing construction machinery, surface mining machinery, and logging equipment.

The data published with NAICS code 333120 include the following SIC industry:

3531 Construction machinery (pt)

33313 Mining and Oil and Gas Field Machinery Manufacturing

This industry comprises establishments primarily engaged in manufacturing oil and gas field and underground mining machinery and equipment.

333131 Mining Machinery and Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing underground mining machinery and equipment, such as coal breakers, mining cars, core drills, coal cutters, rock drills and (2) manufacturing mineral beneficiating machinery and equipment used in surface or underground mines.

The data published with NAICS code 333131 include the following SIC industry:

3532 Mining machinery

333132 Oil and Gas Field Machinery and Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing oil and gas field machinery and equipment, such as oil and gas field drilling machinery and equipment; oil and gas field production machinery and equipment; and oil and gas field derricks and (2) manufacturing water well drilling machinery.

The data published with NAICS code 333132 include the following SIC industry:

3533 Oil field machinery

3332 Industrial Machinery Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33321, Sawmill and Woodworking Machinery Manufacturing; 33322, Plastics and Rubber Industry Machinery Manufacturing; and 33329, Other Industrial Machinery Manufacturing.

33321 Sawmill and Woodworking Machinery Manufacturing

This industry comprises establishments primarily engaged in manufacturing sawmill and woodworking machinery (except handheld), such as circular and band sawing equipment, planing machinery, and sanding machinery.

333210 Sawmill and Woodworking Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing sawmill and woodworking machinery (except handheld), such as circular and band sawing equipment, planing machinery, and sanding machinery.

The data published with NAICS code 333210 include the following SIC industry:

3553 Woodworking machinery

33322 Plastics and Rubber Industry Machinery Manufacturing

This industry comprises establishments primarily engaged in manufacturing plastics and rubber products making machinery, such as plastics compression, extrusion and injection molding machinery and equipment, and tire building and recapping machinery and equipment.

333220 Plastics and Rubber Industry Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing plastics and rubber products making machinery, such as plastics compression, extrusion and injection molding machinery and equipment, and tire building and recapping machinery and equipment.

The data published with NAICS code 333220 include the following SIC industry:

3559 Special industry machinery, n.e.c. (pt)

33329 Other Industrial Machinery Manufacturing

This industry comprises establishments primarily engaged in manufacturing industrial machinery (except agricultural and farm-type, construction, mining, sawmill and woodworking, and plastics and rubber products making machinery).

333291 Paper Industry Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing paper industry machinery for making paper and paper products, such as pulp making machinery, paper and paperboard making machinery, and paper and paperboard converting machinery.

The data published with NAICS code 333291 include the following SIC industry:

3554 Paper industries machinery

333292 Textile Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing textile machinery for making thread, yarn, and fiber.

The data published with NAICS code 333292 include the following SIC industries:

3552 Textile machinery

3699 Electrical equipment and supplies, n.e.c. (pt)

333293 Printing Machinery and Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing printing and bookbinding machinery and equipment, such as printing presses, type-setting machinery, and bindery machinery.

The data published with NAICS code 333293 include the following SIC industries:

3555 Printing trades machinery

3699 Electrical equipment and supplies, n.e.c. (pt)

333294 Food Product Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing food and beverage manufacturing-type machinery and equipment, such as dairy product plant machinery and equipment (e.g., homogenizers, pasteurizers, ice cream freezers), bakery machinery and equipment (e.g., dough mixers, bake ovens, pastry rolling machines), meat and poultry processing and preparation machinery, and other commercial food products machinery (e.g., slicers, choppers, and mixers).

The data published with NAICS code 333294 include the following SIC industry:

3556 Food products machinery

333295 Semiconductor Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing wafer processing equipment, semiconductor assembly and packaging equipment, and other semiconductor making machinery.

The data published with NAICS code 333295 include the following SIC industry:

3559 Special industry machinery, n.e.c. (pt)

333298 All Other Industrial Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing industrial machinery (except agricultural and farm-type, construction and mining machinery, sawmill and woodworking machinery, plastics and rubber making machinery, paper and paperboard making machinery, textile machinery, printing machinery and equipment, food manufacturing-type machinery, and semiconductor making machinery).

The data published with NAICS code 333298 include the following SIC industries:

3559 Special industry machinery, n.e.c. (pt)

3639 Household appliances, n.e.c. (pt)

3333 Commercial and Service Industry Machinery Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33331, Commercial and Service Industry Machinery Manufacturing.

33331 Commercial and Service Industry Machinery Manufacturing

This industry comprises establishments primarily engaged in manufacturing commercial and service machinery, such as automatic vending machinery, commercial laundry and drycleaning machinery, office machinery, photographic and photocopying machinery, optical instruments and machinery, automotive maintenance equipment (except mechanic's handtools), industrial vacuum cleaners, and commercial-type cooking equipment.

333311 Automatic Vending Machine Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing coin, token, currency, or magnetic card operated vending machines and/or (2) manufacturing coin operated mechanism for machines, such as vending machines, lockers, and laundry machines.

The data published with NAICS code 333311 include the following SIC industry:

3581 Automatic merchandising machines

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 333311 do not include establishments primarily engaged in the manufacture of change making machines. The NAICS definitions will be fully implemented with the 2002 Economic Census.

333312 Commercial Laundry, Drycleaning, and Pressing Machine Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing commercial and industrial laundry and drycleaning equipment and pressing machines.

The data published with NAICS code 333312 include the following SIC industry:

3582 Commercial laundry equipment

333313 Office Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing office machinery (except computers and photocopying equipment), such as mail-handling machinery and equipment, calculators, typewriters, and dedicated word processing equipment.

The data published with NAICS code 333313 include the following SIC industries:

3578 Calculating and accounting equipment (pt)

3579 Office machines, n.e.c. (pt)

333314 Optical Instrument and Lens Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing optical instruments and lens, such as binoculars, microscopes (except electron, proton), telescopes, prisms, and lenses (except ophthalmic); (2) coating or polishing lenses (except ophthalmic); and (3) mounting lenses (except ophthalmic).

The data published with NAICS code 333314 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3827 Optical instruments and lenses

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 333314 include establishments primarily engaged in the manufacture of sighting and tracking laser products.

333315 Photographic and Photocopying Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing photographic and photocopying equipment, such as cameras (except television, video, digital projectors, film developing equipment, photocopying equipment, and microfilm equipment).

The data published with NAICS code 333315 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3861 Photographic equipment and supplies (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 333315 include establishments primarily engaged in the manufacture of photographic laser products.

333319 Other Commercial and Service Industry Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing commercial and service industry equipment (except automatic vending machines, commercial laundry, drycleaning and pressing machines, office machinery, optical instruments and lenses, and photographic and photocopying equipment).

The data published with NAICS code 333319 include the following SIC industries:

3559 Special industry machinery, n.e.c. (pt)

3589 Service industry machinery, n.e.c.

3599 Industrial machinery, n.e.c. (pt)

3699 Electrical equipment and supplies, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 333319 do not include establishments primarily engaged in the manufacture of beauty and barbershop equipment, except chairs. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3334 Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33341, Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing.

33341 Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing

This industry comprises establishments primarily engaged in manufacturing ventilating, heating, air-conditioning, and commercial and industrial refrigeration and freezer equipment.

333411 Air Purification Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing stationary air purification equipment, such as industrial dust and fume collection equipment, electrostatic precipitation equipment, warm air furnace filters, air washers, and other dust collection equipment.

The data published with NAICS code 333411 include the following SIC industry:

3564 Blowers and fans (pt)

333412 Industrial and Commercial Fan and Blower Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing attic fans and industrial and commercial fans and blowers, such as commercial exhaust fans and commercial ventilating fans.

The data published with NAICS code 333412 include the following SIC industry:

3564 Blowers and fans (pt)

333414 Heating Equipment (Except Warm Air Furnaces) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing heating equipment (except electric and warm air furnaces), such as heating boilers, heating stoves, floor and wall furnaces, and wall and baseboard heating units.

The data published with NAICS code 333414 include the following SIC industries:

3433 Heating equipment, except electric

3634 Electric housewares and fans (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 333414 do not include establishments primarily engaged in the manufacture of cooling towers of wood, metal, or sheet metal, or the manufacture of electric swimming pool heaters. The NAICS definitions will be fully implemented with the 2002 Economic Census.

333415 Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing air-conditioning (except motor vehicle) and warm air furnace equipment and/or (2) manufacturing commercial and industrial refrigeration and freezer equipment.

The data published with NAICS code 333415 include the following SIC industries:

3443 Fabricated plate work, boiler shops (pt)

3585 Refrigeration and heating equipment (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to

NAICS. Data for NAICS industry 333415 include establishments primarily engaged in the manufacture of metal cooling towers. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3335 Metalworking Machinery Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33351, Metalworking Machinery Manufacturing.

33351 Metalworking Machinery Manufacturing

This industry comprises establishments primarily engaged in manufacturing metalworking machinery, such as metal cutting and metal forming machine tools; cutting tools; and accessories for metalworking machinery; special dies, tools, jigs, and fixtures; industrial molds; rolling mill machinery; assembly machinery; coil handling, conversion, or straightening equipment; and wire drawing and fabricating machines.

333511 Industrial Mold Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing industrial molds for casting metals or forming other materials, such as plastics, glass, or rubber.

The data published with NAICS code 333511 include the following SIC industry:

3544 Special dies, tools, jigs, and fixtures (pt)

333512 Machine Tool (Metal Cutting Types) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal cutting machine tools (except handtools).

The data published with NAICS code 333512 include the following SIC industries:

3541 Machine tools, metal cutting types

3699 Electrical equipment and supplies, n.e.c. (pt)

333513 Machine Tool (Metal Forming Types) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal forming machine tools (except handtools), such as punching, sheering, bending, forming, pressing, forging and die-casting machines.

The data published with NAICS code 333513 include the following SIC industries:

3542 Machine tools, metal forming types

333514 Special Die and Tool, Die Set, Jig, and Fixture Manufacturing

This U.S. industry comprises establishments, known as tool and die shops, primarily engaged in manufacturing special tools and fixtures, such as cutting dies and jigs.

The data published with NAICS code 333514 include the following SIC industry:

3544 Special dies, tools, jigs, and fixtures (pt)

333515 Cutting Tool and Machine Tool Accessory Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing accessories and attachments for metal cutting and metal forming machine tools.

The data published with NAICS code 333515 include the following SIC industry:

3545 Machine tool accessories (pt)

333516 Rolling Mill Machinery and Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing rolling mill machinery and equipment for metal production.

The data published with NAICS code 333516 include the following SIC industry:

3547 Rolling mill machinery

333518 Other Metalworking Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal working machinery (except industrial molds; metal cutting machine tools; metal forming machine tools; special dies and tools, die sets, jigs, and fixtures; cutting tools and machine tool accessories; and rolling mill machinery and equipment).

The data published with NAICS code 333518 include the following SIC industry:

3549 Metalworking machinery, n.e.c.

3336 Engine, Turbine, and Power Transmission Equipment Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33361, Engine, Turbine, and Power Transmission Equipment Manufacturing.

33361 Engine, Turbine, and Power Transmission Equipment Manufacturing

This industry comprises establishments primarily engaged in manufacturing turbines, power transmission equipment, and internal combustion engines (except automotive gasoline and aircraft).

333611 Turbine and Turbine Generator Set Units Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing turbines (except aircraft); and complete turbine generator set units, such as steam, hydraulic, gas, and wind.

The data published with NAICS code 333611 include the following SIC industry:

3511 Turbines and turbine generator sets

333612 Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing gears, speed changers, and industrial high-speed drives (except hydrostatic).

The data published with NAICS code 333612 include the following SIC industry:

3566 Speed changers, drives, and gears

333613 Mechanical Power Transmission Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing mechanical power transmission equipment (except motor vehicle and aircraft), such as plain bearings, brakes and clutches (except motor vehicle and electromagnetic industrial control), couplings, joints, and drive chains.

The data published with NAICS code 333613 include the following SIC industry:

3568 Power transmission equipment, n.e.c.

333618 Other Engine Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing internal combustion engines (except automotive gasoline and aircraft).

The data published with NAICS code 333618 include the following SIC industries:

3519 Internal combustion engines, n.e.c. (pt)

3699 Electrical equipment and supplies, n.e.c. (pt)

3339 Other General-Purpose Machinery Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33391, Pump and Compressor Manufacturing; 33392, Material Handling Equipment Manufacturing; and 33399, All Other General-Purpose Machinery Manufacturing.

33391 Pump and Compressor Manufacturing

This industry comprises establishments primarily engaged in manufacturing pumps and compressors, such as general-purpose air and gas compressors, nonagricultural spraying and dusting equipment, general-purpose pumps and pumping equipment (except fluid power pumps and motors), and measuring and dispensing pumps.

333911 Pump and Pumping Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing general-purpose pumps and pumping equipment (except fluid power pumps and motors), such as reciprocating pumps, turbine pumps, centrifugal pumps, rotary pumps, diaphragm pumps, domestic water system pumps, oil well and oil field pumps and sump pumps.

The data published with NAICS code 333911 include the following SIC industries:

3561 Pumps and pumping equipment

3743 Railroad equipment (pt)

333912 Air and Gas Compressor Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing general-purpose air and gas compressors, such as reciprocating compressors, centrifugal compressors, vacuum pumps (except laboratory), and nonagricultural spraying and dusting compressors and spray gun units.

The data published with NAICS code 333912 include the following SIC industry:

3563 Air and gas compressors

333913 Measuring and Dispensing Pump Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing measuring and dispensing pumps, such as gasoline pumps and lubricating oil measuring and dispensing pumps.

The data published with NAICS code 333913 include the following SIC industry:

3586 Measuring and dispensing pumps

33392 Material Handling Equipment Manufacturing

This industry comprises establishments primarily engaged in manufacturing material handling equipment, such as elevators and moving stairs; conveyors and conveying equipment; overhead traveling cranes, hoists, and monorail systems; and industrial trucks, tractors, trailers, and stacker machinery.

333921 Elevator and Moving Stairway Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing elevators and moving stairways.

The data published with NAICS code 333912 include the following SIC industry:

3534 Elevators and moving stairways

333922 Conveyor and Conveying Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing conveyors and conveying equipment, such as gravity conveyors, trolley conveyors, tow conveyors, pneumatic tube conveyors, carousel conveyors, farm conveyors, and belt conveyors.

The data published with NAICS code 333922 include the following SIC industries:

3523 Farm machinery and equipment (pt)

3535 Conveyors and conveying equipment

333923 Overhead Traveling Crane, Hoist, and Monorail System Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing overhead traveling cranes, hoists, and monorail systems.

The data published with NAICS code 333923 include the following SIC industries:

3531 Construction machinery (pt)

3536 Hoists, cranes, and monorails

333924 Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing industrial trucks, tractors, trailers, and stackers (i.e., truck-type) such as forklifts, pallet loaders and unloaders, and portable loading docks.

The data published with NAICS code 333924 include the following SIC industry:

3537 Industrial trucks and tractors (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 332994 do not include establishments primarily engaged in the manufacture of tranquilizer guns. The NAICS definitions will be fully implemented with the 2002 Economic Census.

33399 All Other General-Purpose Machinery Manufacturing

This industry comprises establishments primarily engaged in manufacturing general-purpose machinery (except ventilation, heating, air-conditioning, and commercial refrigeration equipment; metal working machinery; engines, turbines, and power transmission equipment; pumps and compressors; and material handling equipment).

333991 Power-Driven Handtool Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing power-driven (e.g., battery, corded, pneumatic) handtools, such as drills, screwguns, circular saws, chain saws, staplers, and nailers.

The data published with NAICS code 333991 include the following SIC industry:

3546 Power-driven handtools

333992 Welding and Soldering Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing welding and soldering equipment and accessories (except transformers), such as arc, resistance, gas, plasma, laser, electron beam, and ultrasonic welding equipment; welding electrodes; coated or cored welding wire; and soldering equipment (except handheld).

The data published with NAICS code 333992 include the following SIC industries:

3548 Welding apparatus (pt)

3699 Electrical equipment and supplies, n.e.c. (pt)

333993 Packaging Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing packaging machinery, such as wrapping, bottling, canning, and labeling machinery.

The data published with NAICS code 333993 include the following SIC industry:

3565 Packaging machinery

333994 Industrial Process Furnace and Oven Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing industrial process furnaces, ovens, induction and dielectric heating equipment, and kilns (except cement, chemical, wood).

The data published with NAICS code 333994 include the following SIC industry:

3567 Industrial furnaces and ovens

333995 Fluid Power Cylinder and Actuator Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power (i.e., hydraulic and pneumatic) cylinders and actuators.

The data published with NAICS code 333995 include the following SIC industries:

3593 Fluid power cylinders and actuators

3728 Aircraft parts and equipment, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 333995 include establishments primarily engaged in the manufacture of aerospace-type fluid power actuators. The NAICS definitions will be fully implemented with the 2002 Economic Census.

333996 Fluid Power Pump and Motor Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing fluid power (i.e., hydraulic and pneumatic) pumps and motors.

The data published with NAICS code 333996 include the following SIC industries:

3594 Fluid power pumps and motors

3728 Aircraft parts and equipment, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 333995 include establishments primarily engaged in the manufacture of aerospace-type fluid power actuators. The NAICS definitions will be fully implemented with the 2002 Economic Census.

333997 Scale and Balance (Except Laboratory) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing scales and balances (except laboratory).

The data published with NAICS code 333997 include the following SIC industry:

3596 Scales and balances, except laboratory

333999 All Other Miscellaneous General-Purpose Machinery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing general-purpose machinery (except ventilating, heating, air-conditioning, and commercial refrigeration equipment; metal working machinery;

engines, turbines, and power transmission equipment; pumps and compressors; material handling equipment; power-driven handtools; welding and soldering equipment; packaging machinery; industrial process furnaces and ovens; fluid power cylinders and actuators; fluid power pumps and motors; and scales and balances).

The data published with NAICS code 333999 include the following SIC industries:

3569 General industrial machinery, n.e.c.

3599 Industrial machinery, n.e.c. (pt)

334 Computer and Electronic Product Manufacturing

Industries in the Computer and Electronic Product Manufacturing subsector group establishments that manufacture computers, computer peripherals, communications equipment, and similar electronic products, and establishments that manufacture components for such products. The Computer and Electronic Product Manufacturing industries have been combined in the hierarchy of NAICS because of the economic significance they have attained. Their rapid growth suggests that they will become even more important to the economies of all three North American countries in the future, and in addition their manufacturing processes are fundamentally different from the manufacturing processes of other machinery and equipment. The design and use of integrated circuits and the application of highly specialized miniaturization technologies are common elements in the production technologies of the computer and electronic subsector. Convergence of technology motivates this NAICS subsector. Digitalization of sound recording, for example, causes both the medium (the compact disc) and the equipment to resemble the technologies for recording, storing, transmitting, and manipulating data. Communications technology and equipment have been converging with computer technology. When technologically related components are in the same sector, it makes it easier to adjust the classification for future changes, without needing to redefine its basic structure. The creation of the Computer and Electronic Product Manufacturing subsector will assist in delineating new and emerging industries because the activities that will serve as the probable sources of new industries, such as computer manufacturing and communications equipment manufacturing, or computers and audio equipment are brought together. As new activities emerge, they are less likely, therefore, to cross the subsector boundaries of the classification.

3341 Computer and Peripheral Equipment Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33411, Computer and Peripheral Equipment Manufacturing.

33411 Computer and Peripheral Equipment Manufacturing

This industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, input/output devices and terminals. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following: (1) store the processing program or programs and the data immediately necessary for the execution of the program; (2) can be freely programmed in accordance with the requirements of the user; (3) perform arithmetical computations specified by the user; and (4) execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run. Analog computers are capable of simulating mathematical models and comprise at least analog, control, and programming elements.

334111 Electronic Computer Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers. Computers can be analog, digital, or hybrid. Digital computers, the most common type, are devices that do all of the following: (1) store the processing program or programs and the data immediately necessary for the execution of the program; (2) can be freely programmed in accordance with the requirements of the user; (3) perform arithmetical computations specified by the user; and (4) execute, without human intervention, a processing program that requires the computer to modify its execution by logical decision during the processing run. Analog computers are capable of simulating mathematical models and contain at least analog, control, and programming elements. The manufacture of computers includes the assembly or integration of processors, coprocessors, memory, storage, and input/output devices into a user-programmable final product.

The data published with NAICS code 334111 include the following SIC industry:

3571 Electronic computers

334112 Computer Storage Device Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, optical, or magnetic/optical media. Examples of products made by these establishments are CD-ROM drives, floppy disk drives, hard disk drives, and tape storage and backup units.

The data published with NAICS code 334112 include the following SIC industry:

3572 Computer storage devices

334113 Computer Terminal Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing computer terminals. Computer terminals are input/output devices that connect with a central computer for processing.

The data published with NAICS code 334113 include the following SIC industry:

3575 Computer terminals

334119 Other Computer Peripheral Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing computer peripheral equipment (except storage devices and computer terminals).

The data published with NAICS code 334119 include the following SIC industries:

3577 Computer peripheral equipment, n.e.c.

3578 Calculating and accounting equipment (pt)

3699 Electrical equipment and supplies, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 334119 include establishments primarily engaged in the manufacture of laser products.

3342 Communications Equipment Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33421, Telephone Apparatus Manufacturing; 33422, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing; and 33429, Other Communications Equipment Manufacturing.

33421 Telephone Apparatus Manufacturing

This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be stand-alone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, and data communications equipment, such as bridges, routers, and gateways.

334210 Telephone Apparatus Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be stand-alone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, and data communications equipment, such as bridges, routers, and gateways.

The data published with NAICS code 334210 include the following SIC industry:

3661 Telephone and telegraph apparatus (pt)

33422 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing

This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.

334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.

The data published with NAICS code 334220 include the following SIC industries:

3663 Radio and TV communications equipment

3679 Electronic components, n.e.c. (pt)

33429 Other Communications Equipment Manufacturing

This industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, and radio and television broadcast, and wireless communications equipment).

334290 Other Communications Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, radio and television broadcast, and wireless communications equipment).

The data published with NAICS code 334290 include the following SIC industry:

3669 Communications equipment, n.e.c.

3343 Audio and Video Equipment Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33431, Audio and Video Equipment Manufacturing.

33431 Audio and Video Equipment Manufacturing

This industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

334310 Audio and Video Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

The data published with NAICS code 334310 include the following SIC industry:

3651 Household audio and video equipment

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334310 do not include establishments primarily engaged in the manufacture of radio headphones. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3344 Semiconductor and Other Electronic Component Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33441, Semiconductor and Other Electronic Component Manufacturing.

33441 Semiconductor and Other Electronic Component Manufacturing

This industry comprises establishments primarily engaged in manufacturing semiconductors and other components for electronic applications. Examples of products

made by these establishments are capacitors, resistors, microprocessors, bare and loaded printed circuit boards, electron tubes, electronic connectors, and computer modems.

334411 Electron Tube Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electron tubes and parts (except glass blanks). Examples of products made by these establishments are cathode ray tubes (i.e., picture tubes), klystron tubes, magnetron tubes, and traveling wave tubes.

The data published with NAICS code 334411 include the following SIC industries:

3671 Electron tubes

334412 Bare Printed Circuit Board Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing bare (i.e., rigid or flexible) printed circuit boards without mounted electronic components. These establishments print, perforate, plate, screen, etch, or photoprint interconnecting pathways for electric current on laminates.

The data published with NAICS code 334412 include the following SIC industry:

3672 Printed circuit boards

334413 Semiconductor and Related Device Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing semiconductors and related solid state devices. Examples of products made by these establishments are integrated circuits, memory chips, microprocessors, diodes, transistors, solar cells, and other optoelectronic devices.

The data published with NAICS code 334413 include the following SIC industry:

3674 Semiconductors and related devices

334414 Electronic Capacitor Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electronic fixed and variable capacitors and condensers.

The data published with NAICS code 334414 include the following SIC industry:

3675 Electronic capacitors

334415 Electronic Resistor Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electronic resistors, such as fixed and variable resistors, resistor networks, thermistors, and varistors.

The data published with NAICS code 334415 include the following SIC industry:

3676 Electronic resistors

334416 Electronic Coil, Transformer, and Other Inductor Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electronic inductors, such as coils and transformers.

The data published with NAICS code 334416 include the following SIC industries:

3661 Telephone and telegraph apparatus (pt)

3677 Electronic coils and transformers

3825 Instruments to measure electricity (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334416 include establishments primarily engaged in the manufacture of telephone transformers or portable instrument transformers. The NAICS definitions will be fully implemented with the 2002 Economic Census.

334417 Electronic Connector Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electronic connectors, such as coaxial, cylindrical, rack and panel, pin and sleeve, printed circuit and fiber optic.

The data published with NAICS code 334417 include the following SIC industry:

3678 Electronic connectors

334418 Printed Circuit Assembly (Electronic Assembly) Manufacturing

This U.S. industry comprises establishments primarily engaged in loading components onto printed circuit boards or who manufacture and ship loaded printed circuit boards. Also known as printed circuit assemblies, electronics assemblies, or modules, these products are printed circuit boards that have some or all of the semiconductor and electronic components inserted or mounted and are inputs to a wide variety of electronic systems and devices.

The data published with NAICS code 334418 include the following SIC industries:

3661 Telephone and telegraph apparatus (pt)

3679 Electronic components, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334418 do not include

establishments primarily engaged in the manufacture of plotter controllers. The NAICS definitions will be fully implemented with the 2002 Economic Census.

334419 Other Electronic Component Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electronic components (except electron tubes; bare printed circuit boards; semiconductors and related devices; electronic capacitors; electronic resistors; coils, transformers and other inductors; connectors; and loaded printed circuit boards).

The data published with NAICS code 334419 include the following SIC industry:

3679 Electronic components, n.e.c. (pt)

3345 Navigational, Measuring, Medical, and Control Instruments Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33451, Navigational, Measuring, Medical, and Control Instruments Manufacturing.

33451 Navigational, Measuring, Medical, and Control Instruments Manufacturing

This industry comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments, navigation and guidance systems, and physical properties testing equipment.

334510 Electromedical and Electrotherapeutic Apparatus Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electromedical and electrotherapeutic apparatus, such as magnetic resonance imaging equipment, medical ultrasound equipment, pacemakers, hearing aids, electrocardiographs, and electromedical endoscopic equipment.

The data published with NAICS code 334510 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3842 Surgical appliances and supplies (pt)

3845 Electromedical equipment

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 334510 include establishments primarily engaged in the manufacture of electro-medical laser products.

334511 Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing search, detection, navigation, guidance, aeronautical, and nautical systems and instruments. Examples of products made by these establishments are aircraft instruments (except engine), flight recorders, navigational instruments and systems, radar systems and equipment, and sonar systems and equipment.

The data published with NAICS code 334511 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3812 Search and navigation equipment

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 334511 include establishments primarily engaged in the manufacture of search and detection laser products.

334512 Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use

This U.S. industry comprises establishments primarily engaged in manufacturing automatic controls and regulators for applications, such as heating, air-conditioning, refrigeration and appliances.

The data published with NAICS code 334512 include the following SIC industry:

3822 Environmental controls

334513 Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables

This U.S. industry comprises establishments primarily engaged in manufacturing instruments and related devices for measuring, displaying, indicating, recording, transmitting, and controlling industrial process variables. These instruments measure, display or control (monitor, analyze, and so forth) industrial process variables, such as temperature, humidity, pressure, vacuum, combustion, flow, level, viscosity, density, acidity, concentration, and rotation.

The data published with NAICS code 334513 include the following SIC industry:

3823 Process control instruments

334514 Totalizing Fluid Meter and Counting Device Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing totalizing (i.e., registering) fluid meters and counting devices. Examples of products made

by these establishments are gas consumption meters, water consumption meters, parking meters, taxi meters, motor vehicle gauges, and fare collection equipment.

The data published with NAICS code 334514 include the following SIC industry:

3824 Fluid meters and counting devices

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334514 do not include establishments primarily engaged in the manufacture of automotive ammeters and voltmeters or motor vehicle gauges. The NAICS definitions will be fully implemented with the 2002 Economic Census.

334515 Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals

This U.S. industry comprises establishments primarily engaged in manufacturing instruments for measuring and testing the characteristics of electricity and electrical signals. Examples of products made by these establishments are circuit and continuity testers, volt meters, ohm meters, wattmeters, multimeters, and semiconductor test equipment.

The data published with NAICS code 334515 include the following SIC industry:

3825 Instruments to measure electricity (pt)

334516 Analytical Laboratory Instrument Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing instruments and instrumentation systems for laboratory analysis of the chemical or physical composition or concentration of samples of solid, fluid, gaseous, or composite material.

The data published with NAICS code 334516 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3826 Analytical instruments

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 334516 include establishments primarily engaged in the manufacture of analytical and scientific laser products.

334517 Irradiation Apparatus Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing irradiation apparatus and tubes for applications, such as medical diagnostic, medical therapeutic, industrial, research and scientific evaluation. Irradiation can take the form of beta-rays, gamma-rays, X-rays, or other ionizing radiation.

The data published with NAICS code 334517 include the following SIC industry:

3844 X-ray apparatus and tubes

334518 Watch, Clock, and Parts Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing and/or assembling clocks; watches; timing mechanisms for clockwork operated devices; time clocks; time and date recording devices; and clock and watch parts (except crystals), such as springs, jewels, and modules.

The data published with NAICS code 334518 include the following SIC industries:

3495 Wire springs (pt)

3579 Office machines, n.e.c. (pt)

3873 Watches, clocks, and watchcases

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334518 do not include establishments primarily engaged in the manufacture of electronic chronometers or watch jewels. The NAICS definitions will be fully implemented with the 2002 Economic Census.

334519 Other Measuring and Controlling Device Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing measuring and controlling devices (except search, detection, navigation, guidance, aeronautical, and nautical instruments and systems; automatic environmental controls for residential, commercial, and appliance use; instruments for measurement, display, and control of industrial process variables; totalizing fluid meters and counting devices; instruments for measuring and testing electricity and electrical signals; analytical laboratory instruments; watches, clocks, and parts; irradiation equipment; and electromedical and electrotherapeutic apparatus).

The data published with NAICS code 334519 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3829 Measuring and controlling devices, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing implemented the conversion to NAICS differently. Data for NAICS industry 334519 include establishments primarily engaged in the manufacture of commercial geophysical, meteorological, survey, and drafting laser products.

3346 Manufacturing and Reproducing Magnetic and Optical Media

This NAICS industry group includes establishments classified in NAICS Industry 33461, Manufacturing and Reproducing Magnetic and Optical Media.

33461 Manufacturing and Reproducing Magnetic and Optical Media

This industry comprises establishments primarily engaged in (1) manufacturing optical and magnetic media, such as blank audio tape, blank video tape, and blank diskettes and/or (2) mass duplicating (i.e., making copies) audio, video, software, and other data on magnetic, optical, and similar media.

334611 Software Reproducing

This U.S. industry comprises establishments primarily engaged in mass reproducing computer software. These establishments do not generally develop any software; they mass reproduce data and programs on magnetic media, such as diskettes, tapes, or cartridges. Establishments in this industry mass reproduce products, such as CD-ROMs and game cartridges.

The data published with NAICS code 334611 include the following SIC industries:

7379 Computer Related Services, n.e.c. (pt)

334612 Prerecorded Compact Disc (Except Software), Tape, and Record Reproducing

This U.S. industry comprises establishments primarily engaged in mass reproducing audio and video material on magnetic or optical media. Examples of products mass reproduced by these establishments are audio compact discs, prerecorded audio and video cassettes, and laser discs.

The data published with NAICS code 334612 include the following SIC industries:

3652 Prerecorded records and tapes

7819 Services allied to motion pictures (pt)

334613 Magnetic and Optical Recording Media Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing magnetic and optical recording media, such as blank magnetic tape, blank diskettes, blank optical discs, hard drive media, and blank magnetic tape cassettes.

The data published with NAICS code 334613 include the following SIC industry:

3695 Magnetic and optical recording media

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 334613 do not include establishments primarily engaged in the manufacture of magnetic tape cleaners. The NAICS definitions will be fully implemented with the 2002 Economic Census.

335 Electrical Equipment, Appliance, and Component Manufacturing

Industries in the Electrical Equipment, Appliance, and Component Manufacturing subsector manufacture products that generate, distribute and use electrical power. Electric lighting equipment manufacturing establishments produce electric lamp bulbs, lighting fixtures, and parts. Household appliance manufacturing establishments make both small and major electrical appliances and parts. Electrical equipment manufacturing establishments make goods, such as electric motors, generators, transformers, and switchgear apparatus. Other electrical equipment and component manufacturing establishments make devices for storing electrical power (e.g., batteries), for transmitting electricity (e.g., insulated wire), and wiring devices (e.g., electrical outlets, fuse boxes, and light switches).

3351 Electric Lighting Equipment Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33511, Electric Lamp Bulb and Parts Manufacturing; and 33512, Lighting Fixture Manufacturing.

33511 Electric Lamp Bulb and Parts Manufacturing

This industry comprises establishments primarily engaged in manufacturing electric light bulbs and tubes, and parts and components (except glass blanks for electric light bulbs).

335110 Electric Lamp Bulb and Part Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electric light bulbs and tubes, and parts and components (except glass blanks for electric light bulbs).

The data published with NAICS code 335110 include the following SIC industry:

3641 Electric lamps

33512 Lighting Fixture Manufacturing

This industry comprises establishments primarily engaged in manufacturing electric lighting fixtures (except vehicular), nonelectric lighting equipment, lamp shades (except glass and plastics) and lighting fixture components (except current-carrying wiring devices).

335121 Residential Electric Lighting Fixture Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing fixed or portable residential electric lighting fixtures and lamp shades of metal, paper, or textiles. Residential electric lighting fixtures include those for use both inside and outside the residence.

The data published with NAICS code 335121 include the following SIC industries:

- 3089 Plastics products, n.e.c. (pt)
- 3645 Residential lighting fixtures
- 3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 335121 include establishments primarily engaged in the manufacture of plastic lampshades. The NAICS definitions will be fully implemented with the 2002 Economic Census.

335122 Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing commercial, industrial, and institutional electric lighting fixtures.

The data published with NAICS code 335122 include the following SIC industry:

- 3646 Commercial lighting fixtures

335129 Other Lighting Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electric lighting fixtures (except residential, commercial, industrial, institutional, and vehicular electric lighting fixtures) and nonelectric lighting equipment.

The data published with NAICS code 335129 include the following SIC industries:

- 3648 Lighting equipment, n.e.c.
- 3699 Electrical equipment and supplies, n.e.c. (pt)

3352 Household Appliance Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33521, Small Electrical Appliance Manufacturing; and 33522, Major Appliance Manufacturing.

33521 Small Electrical Appliance Manufacturing

This industry comprises establishments primarily engaged in manufacturing small electric appliances and electric housewares, household-type fans, household-type vacuum cleaners, and other electric household-type floor care machines.

335211 Electric Housewares and Household Fan Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing small electric appliances and electric housewares for heating, cooking, and other purposes, and electric household-type fans (except attic fans).

The data published with NAICS code 335211 include the following SIC industry:

- 3634 Electric housewares and fans (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 335211 do not include establishments primarily engaged in the manufacture of electric hair clippers for humans. The NAICS definitions will be fully implemented with the 2002 Economic Census.

335212 Household Vacuum Cleaner Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electric vacuum cleaners, electric floor waxing machines, and other electric floor care machines typically for household use.

The data published with NAICS code 335212 include the following SIC industries:

- 3635 Household vacuum cleaners
- 3639 Household appliances, n.e.c. (pt)

33522 Major Appliance Manufacturing

This industry comprises establishments primarily engaged in manufacturing household-type cooking appliances, household-type laundry equipment, household-type refrigerators, upright and chest freezers, and other electrical and nonelectrical major household-type appliances, such as dishwashers, water heaters, and garbage disposal units.

335221 Household Cooking Appliance Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing household-type electric and nonelectric cooking equipment (except small electric appliances and electric housewares).

The data published with NAICS code 335221 include the following SIC industry:

- 3631 Household cooking equipment

335222 Household Refrigerator and Home Freezer Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing household-type refrigerators and upright and chest freezers.

The data published with NAICS code 335222 include the following SIC industry:

3632 Household refrigerators and freezers

335224 Household Laundry Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing household-type laundry equipment.

The data published with NAICS code 335224 include the following SIC industry:

3633 Household laundry equipment

335228 Other Major Household Appliance Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electric and nonelectric major household-type appliances (except cooking equipment, refrigerators, upright and chest freezers, and household-type laundry equipment).

The data published with NAICS code 335228 include the following SIC industry:

3639 Household appliances, n.e.c. (pt)

3353 Electrical Equipment Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33531, Electrical Equipment Manufacturing.

33531 Electrical Equipment Manufacturing

This industry comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers; electric motors, generators, and motor generator sets; switchgear and switchboard apparatus; relays; and industrial controls.

335311 Power, Distribution, and Specialty Transformer Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers (except electronic components). Industrial-type and consumer-type transformers in this industry vary (e.g., step up or step down) voltage but do not convert alternating to direct or direct to alternating current.

The data published with NAICS code 335311 include the following SIC industries:

3548 Welding apparatus (pt)

3612 Transformers

335312 Motor and Generator Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing electric motors (except internal combustion engine starting motors), power generators (except battery charging alternators for internal combustion engines), and motor generator sets (except turbine generator set units). This industry includes establishments rewinding armatures on a factory basis.

The data published with NAICS code 335312 include the following SIC industries:

3621 Motors and generators

7694 Armature rewinding shops (pt)

335313 Switchgear and Switchboard Apparatus Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing switchgear and switchboard apparatus.

The data published with NAICS code 335313 include the following SIC industry:

3613 Switchgear and switchboard apparatus

335314 Relay and Industrial Control Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing relays, motor starters and controllers, and other industrial controls and control accessories.

The data published with NAICS code 335314 include the following SIC industry:

3625 Relays and industrial controls

3359 Other Electrical Equipment and Component Manufacturing

This industry group comprises establishments manufacturing electrical equipment and components (except electric lighting equipment, household-type appliances, transformers, switchgear, relays, motors, and generators).

33591 Battery Manufacturing

This industry comprises establishments primarily engaged in manufacturing primary and storage batteries.

335911 Storage Battery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing storage batteries.

The data published with NAICS code 335911 include the following SIC industry:

3691 Storage batteries

335912 Primary Battery Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing wet or dry primary batteries.

The data published with NAICS code 335912 include the following SIC industry:

3692 Primary batteries, dry and wet

33592 Communication and Energy Wire and Cable Manufacturing

This industry comprises establishments insulating fiber-optic cable, and manufacturing insulated nonferrous wire and cable from nonferrous wire drawn in other establishments.

335921 Fiber Optic Cable Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing insulated fiber-optic cable from purchased fiber-optic strand.

The data published with NAICS code 335921 include the following SIC industry:

3357 Nonferrous wire drawing and insulating (pt)

335929 Other Communication and Energy Wire Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing insulated wire and cable of nonferrous metals from purchased wire.

The data published with NAICS code 335929 include the following SIC industry:

3357 Nonferrous wire drawing and insulating (pt)

33593 Wiring Device Manufacturing

This industry comprises establishments primarily engaged in manufacturing current-carrying wiring devices and noncurrent-carrying wiring devices for wiring electrical circuits.

335931 Current-Carrying Wiring Device Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing current-carrying wiring devices.

The data published with NAICS code 335931 include the following SIC industry:

3643 Current-carrying wiring devices

335932 Noncurrent-Carrying Wiring Device Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing noncurrent-carrying wiring devices.

The data published with NAICS code 335932 include the following SIC industry:

3644 Noncurrent-carrying wiring devices

33599 All Other Electrical Equipment and Component Manufacturing

This industry comprises establishments primarily engaged in manufacturing electrical equipment (except electric lighting equipment, household-type appliances, transformers, motors, generators, switchgear, relays, industrial controls, batteries, communication and energy wire and cable, and wiring devices).

335991 Carbon and Graphite Product Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing carbon, graphite, and metal-graphite brushes and brush stock; carbon or graphite electrodes for thermal and electrolytic uses; carbon and graphite fibers; and other carbon, graphite, and metal-graphite products.

The data published with NAICS code 335991 include the following SIC industry:

3624 Carbon and graphite products

335999 All Other Miscellaneous Electrical Equipment and Component Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing industrial and commercial electric apparatus and other equipment (except lighting equipment, household appliances, transformers, motors, generators, switchgear, relays, industrial controls, batteries, communication and energy wire and cable, wiring devices, and carbon and graphite products). This industry includes power converters (i.e., AC to DC and DC to AC), power supplies, surge suppressors, and similar equipment for industrial-type and consumer-type equipment.

The data published with NAICS code 335999 include the following SIC industries:

3629 Electrical industrial apparatus, n.e.c.

3699 Electrical equipment and supplies, n.e.c. (pt)

336 Transportation Equipment Manufacturing

Industries in the Transportation Equipment Manufacturing subsector produce equipment for transporting people and goods. Transportation equipment is a type of machinery. An entire subsector is devoted to this activity because of the significance of its economic size in all three North American countries.

Establishments in this subsector utilize production processes similar to those of other machinery manufacturing establishments - bending, forming, welding, machining, and assembling metal or plastic parts into components and finished products. However, the assembly of components and subassemblies and their further assembly into finished vehicles tends to be a more common production process in this subsector than in the Machinery Manufacturing subsector.

NAICS has industry groups for the manufacture of equipment for each mode of transport - road, rail, air, and water. Parts for motor vehicles warrant a separate industry group because of their importance and because parts manufacture requires less assembly, and the establishments that manufacture only parts are not as vertically integrated as those that make complete vehicles.

Land use motor vehicle equipment not designed for highway operation (e.g., agricultural equipment, construction equipment, and materials handling equipment) is classified in the appropriate NAICS subsector based on the type and use of the equipment.

3361 Motor Vehicle Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33611, Automobile and Light Duty Motor Vehicle Manufacturing; and 33612, Heavy Duty Truck Manufacturing.

33611 Automobile and Light Duty Motor Vehicle Manufacturing

This industry comprises establishments primarily engaged in (1) manufacturing complete automobile and light duty motor vehicles (i.e., body and chassis or unibody) or (2) manufacturing chassis only.

336111 Automobile Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing complete automobiles (i.e., body and chassis or unibody) or (2) manufacturing automobile chassis only.

The data published with NAICS code 336111 include the following SIC industry:

3711 Motor vehicles and car bodies (pt)

336112 Light Truck and Utility Vehicle Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing complete light trucks and utility vehicles (i.e., body and chassis) or (2) manufacturing light truck and utility vehicle chassis only. Vehicles made include light duty vans, pick-up trucks, minivans, and sport utility vehicles.

The data published with NAICS code 336112 include the following SIC industry:

3711 Motor vehicles and car bodies (pt)

33612 Heavy Duty Truck Manufacturing

This industry comprises establishments primarily engaged in (1) manufacturing heavy duty truck chassis and assembling complete heavy duty trucks, buses, heavy duty motor homes, and other special-purpose, heavy duty motor vehicles for highway use or (2) manufacturing heavy duty truck chassis only.

336120 Heavy Duty Truck Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing heavy duty truck chassis and assembling complete heavy duty trucks, buses, heavy duty motor homes, and other special-purpose, heavy duty motor vehicles for highway use or (2) manufacturing heavy duty truck chassis only.

The data published with NAICS code 336120 include the following SIC industry:

3711 Motor vehicles and car bodies (pt)

3362 Motor Vehicle Body and Trailer Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33621, Motor Vehicle Body and Trailer Manufacturing.

33621 Motor Vehicle Body and Trailer Manufacturing

This industry comprises establishments primarily engaged in (1) manufacturing motor vehicle bodies and cabs or (2) manufacturing truck, automobile and utility trailers, truck trailer chassis, detachable trailer bodies and detachable trailer chassis. The products made may be sold separately or may be assembled on purchased chassis and sold as complete vehicles.

Motor homes are units where the motor and the living quarters are contained in the same integrated unit, while travel trailers are designed to be towed by a motor unit, such as an automobile or a light truck.

336211 Motor Vehicle Body Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing truck and bus bodies and cabs and automobile bodies. The products made may be sold separately or may be assembled on purchased chassis and sold as complete vehicles.

The data published with NAICS code 336211 include the following SIC industries:

3711 Motor vehicles and car bodies (pt)

3713 Truck and bus bodies

3714 Motor vehicle parts and accessories (pt)

336212 Truck Trailer Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing truck trailers, truck trailer chassis, cargo container chassis, detachable trailer bodies, and detachable trailer chassis for sale separately.

The data published with NAICS code 336212 include the following SIC industry:

3715 Truck trailers

336213 Motor Home Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing motor homes on purchased chassis and/or (2) manufacturing conversion vans on an assembly line basis. Motor homes are units where the motor and the living quarters are integrated in the same unit.

The data published with NAICS code 336213 include the following SIC industry:

3716 Motor homes

336214 Travel Trailer and Camper Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing travel trailers and campers designed to attach to motor vehicles; (2) manufacturing pickup coaches (i.e., campers) and caps (i.e., covers) for mounting on pickup trucks; and (3) manufacturing automobile, utility, and light-truck trailers. Travel trailers do not have their own motor but are designed to be towed by a motor unit, such as an automobile or a light truck.

The data published with NAICS code 336214 include the following SIC industries:

3792 Travel trailer and campers

3799 Transportation equipment, n.e.c. (pt)

3363 Motor Vehicle Parts Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33631, Motor Vehicle Gasoline Engine and Engine Parts Manufacturing; 33632, Motor Vehicle Electrical and Electronic Equipment Manufacturing; 33633, Motor Vehicle Steering and Suspension Component (Except Spring) Manufacturing; 33634, Motor Vehicle Brake System Manufacturing; 33635, Motor Vehicle Transmission and Power Train Parts Manufacturing; 33636, Motor Vehicle Seating and Interior Trim Manufacturing; 33637, Motor Vehicle Metal Stamping; and 33639, Other Motor Vehicle Parts Manufacturing.

33631 Motor Vehicle Gasoline Engine and Engine Parts Manufacturing

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle gasoline engines and engine parts, whether or not for vehicular use.

336311 Carburetor, Piston, Piston Ring, and Valve Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding carburetors, pistons, piston rings, and engine intake and exhaust valves.

The data published with NAICS code 336311 include the following SIC industries:

3592 Carburetors, pistons, rings, and valves

336312 Gasoline Engine and Engine Parts Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding gasoline motor vehicle engines and gasoline motor vehicle engine parts, excluding carburetors, pistons, piston rings, and valves.

The data published with NAICS code 336312 include the following SIC industry:

3714 Motor vehicle parts and accessories (pt)

33632 Motor Vehicle Electrical and Electronic Equipment Manufacturing

This industry comprises establishments primarily engaged in (1) manufacturing vehicular lighting and/or (2) manufacturing and/or rebuilding motor vehicle electrical and electronic equipment. The products made can be used for all types of transportation equipment (i.e., aircraft, automobiles, trains, ships).

336321 Vehicular Lighting Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing vehicular lighting fixtures.

The data published with NAICS code 336321 include the following SIC industry:

3647 Vehicular lighting equipment

336322 Other Motor Vehicle Electrical and Electronic Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding electrical and electronic equipment for motor vehicles and internal combustion engines.

The data published with NAICS code 336322 include the following SIC industries:

3679 Electronic components, n.e.c. (pt)

3694 Engine electrical equipment

3714 Motor vehicle parts and accessories (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 336322 include establishments primarily engaged in the manufacture of electronic control modular chips for motor vehicles. The NAICS definitions will be fully implemented with the 2002 Economic Census.

33633 Motor Vehicle Steering and Suspension Component (Except Spring) Manufacturing

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle steering mechanisms and suspension components (except springs).

336330 Motor Vehicle Steering and Suspension Component (Except Spring) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle steering mechanisms and suspension components (except springs).

The data published with NAICS code 336330 include the following SIC industry:

3714 Motor vehicle parts and accessories (pt)

33634 Motor Vehicle Brake System Manufacturing

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle brake systems and related components.

336340 Motor Vehicle Brake System Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle brake systems and related components.

The data published with NAICS code 336340 include the following SIC industries:

3292 Asbestos products (pt)

3714 Motor vehicle parts and accessories (pt)

33635 Motor Vehicle Transmission and Power Train Parts Manufacturing

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle transmission and power train parts.

336350 Motor Vehicle Transmission and Power Train Parts Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle transmission and power train parts.

The data published with NAICS code 336350 include the following SIC industry:

3714 Motor vehicle parts and accessories (pt)

33636 Motor Vehicle Seating and Interior Trim Manufacturing

This industry comprises establishments primarily engaged in manufacturing motor vehicle seating, seats, seat frames, seat belts, and interior trimmings.

336360 Motor Vehicle Seating and Interior Trim Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing motor vehicle seating, seats, seat frames, seat belts, and interior trimmings.

The data published with NAICS code 336360 include the following SIC industries:

2396 Automotive and apparel trimmings (pt)

2399 Fabricated textile products, n.e.c. (pt)

2531 Public building and related furniture (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 336360 do not include establishments primarily engaged in the manufacture of metal motor vehicle seat frames. The NAICS definitions will be fully implemented with the 2002 Economic Census.

33637 Motor Vehicle Metal Stamping

This industry comprises establishments primarily engaged in manufacturing motor vehicle stampings, such as fenders, tops, body parts, trim, and molding.

336370 Motor Vehicle Metal Stamping

This U.S. industry comprises establishments primarily engaged in manufacturing motor vehicle stampings, such as fenders, tops, body parts, trim, and molding.

The data published with NAICS code 336370 include the following SIC industry:

3465 Automotive stampings

33639 Other Motor Vehicle Parts Manufacturing

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle parts and accessories (except motor vehicle gasoline engines and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, motor vehicle transmission and power train parts, motor vehicle seating and interior trim, and motor vehicle stampings).

336391 Motor Vehicle Air-Conditioning Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing air-conditioning systems and compressors for motor vehicles, such as automobiles, trucks, buses, aircraft, farm machinery, construction machinery, and other related vehicles.

The data published with NAICS code 336391 include the following SIC industry:

3585 Refrigeration and heating equipment (pt)

336399 All Other Motor Vehicle Parts Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle parts and accessories (except motor vehicle gasoline engines and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, motor vehicle transmission and power train parts, motor vehicle seating and interior trim, motor vehicle stampings, and motor vehicle air-conditioning systems and compressors).

The data published with NAICS code 336399 include the following SIC industries:

3519 Internal combustion engines, n.e.c. (pt)

3714 Motor vehicle parts and accessories (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 336399 do not include establishments primarily engaged in the manufacture of luggage and utility racks or trailer hitches. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3364 Aerospace Product and Parts Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33641, Aerospace Product and Parts Manufacturing.

33641 Aerospace Product and Parts Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing complete aircraft, missiles, or space vehicles; (2) manufacturing aerospace engines, propulsion units, auxiliary equipment or parts; (3) developing and making prototypes of aerospace products; (4) aircraft conversion (i.e., major modifications to systems); and (5) complete aircraft or propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

336411 Aircraft Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing or assembling complete aircraft; (2) developing and making aircraft prototypes; (3) aircraft conversion (i.e., major modifications to systems); and (4) complete aircraft overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications).

The data published with NAICS code 336411 include the following SIC industry:

3721 Aircraft

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 336411 do not include establishments primarily engaged in the manufacture of target drones. The NAICS definitions will be fully implemented with the 2002 Economic Census.

336412 Aircraft Engine and Engine Parts Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing aircraft engines and engine parts; (2) developing and making prototypes of aircraft engines and engine parts; (3) aircraft propulsion system conversion (i.e., major modifications to systems); and (4) aircraft propulsion systems overhaul and rebuilding (i.e., periodic restoration of aircraft propulsion system to original design specifications).

The data published with NAICS code 336412 include the following SIC industry:

3724 Aircraft engines and engine parts

336413 Other Aircraft Parts and Auxiliary Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing aircraft parts or auxiliary equipment (except engines and aircraft fluid power subassemblies) and/or (2) developing and making prototypes of aircraft parts and auxiliary equipment. Auxiliary equipment includes such items as crop dusting apparatus, armament racks, inflight refueling equipment, and external fuel tanks.

The data published with NAICS code 336413 include the following SIC industry:

3728 Aircraft parts and equipment, n.e.c. (pt)

336414 Guided Missile and Space Vehicle Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing complete guided missiles and space vehicles and/or (2) developing and making prototypes of guided missile or space vehicles.

The data published with NAICS code 336414 include the following SIC industry:

3761 Guided missiles and space vehicles

336415 Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing guided missile and/or space vehicle propulsion units and propulsion unit parts and/or (2) developing and making prototypes of guided missile and space vehicle propulsion units and propulsion unit parts.

The data published with NAICS code 336415 include the following SIC industry:

3764 Space propulsion units and parts

336419 Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing guided missile and space vehicle parts and auxiliary equipment (except guided missile and space vehicle propulsion units and propulsion unit parts) and/or (2) developing and making prototypes of guided missile and space vehicle parts and auxiliary equipment.

The data published with NAICS code 336419 include the following SIC industry:

3769 Space vehicle equipment, n.e.c.

3365 Railroad Rolling Stock Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33651, Railroad Rolling Stock Manufacturing.

33651 Railroad Rolling Stock Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing and/or rebuilding locomotives, locomotive frames and parts; (2) manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and (3) manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

336510 Railroad Rolling Stock Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing and/or rebuilding locomotives, locomotive frames, and parts; (2) manufacturing railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service; and (3) manufacturing rail layers, ballast distributors, rail tamping equipment, and other railway track maintenance equipment.

The data published with NAICS code 336510 include the following SIC industries:

3531 Construction machinery (pt)

3743 Railroad equipment (pt)

3366 Ship and Boat Building

This NAICS industry group includes establishments classified in NAICS Industry 33661, Ship and Boat Building.

33661 Ship and Boat Building

This industry comprises establishments primarily engaged in operating shipyards or boat yards (i.e., ship or boat manufacturing facilities). Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for other than personal or recreational use. Boats are defined as watercraft typically suitable or intended for personal use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

336611 Ship Building and Repairing

This U.S. industry comprises establishments primarily engaged in operating a shipyard. Shipyards are fixed facilities with drydocks and fabrication equipment capable of building a ship, defined as watercraft typically suitable or intended for other than personal or recreational use. Activities of shipyards include the construction of ships, their repair, conversion and alteration, the production of prefabricated ship and barge sections, and specialized services, such as ship scaling.

The data published with NAICS code 336611 include the following SIC industry:

3731 Ship building and repairing

336612 Boat Building

This U.S. industry comprises establishments primarily engaged in building boats. Boats are defined as watercraft not built in shipyards and typically of the type suitable or intended for personal use.

The data published with NAICS code 336612 include the following SIC industry:

3732 Boat building and repairing (pt)

3369 Other Transportation Equipment Manufacturing

This industry group comprises establishments primarily engaged in manufacturing transportation equipment (except motor vehicles and parts, aerospace products and parts, railroad rolling stock, ship building, and boat manufacturing).

33699 Other Transportation Equipment Manufacturing

This industry comprises establishments primarily engaged in manufacturing motorcycles, bicycles, metal tricycles, complete military armored vehicles, tanks, self-propelled weapons, vehicles pulled by draft animals, and other transportation equipment (except motor vehicles, boats, ships, railroad rolling stock, and aerospace products), including parts thereof.

336991 Motorcycle, Bicycle, and Parts Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing motorcycles, bicycles, tricycles and similar equipment and parts.

The data published with NAICS code 336991 include the following SIC industries:

3751 Motorcycles, bicycles, and parts

3944 Games, toys, and children's vehicles (pt)

336992 Military Armored Vehicle, Tank, and Tank Component Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing complete military armored vehicles, combat tanks, specialized components for combat tanks, and self-propelled weapons.

The data published with NAICS code 336992 include the following SIC industries:

3711 Motor vehicles and car bodies (pt)

3795 Tanks and tank components

336999 All Other Transportation Equipment Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing transportation equipment (except motor vehicles, motor vehicle parts, boats, ships, railroad rolling stock, aerospace products, motorcycles, bicycles, armored vehicles, and tanks).

The data published with NAICS code 336999 include the following SIC industry:

3799 Transportation equipment, n.e.c. (pt)

337 Furniture and Related Product Manufacturing

Industries in the Furniture and Related Product Manufacturing subsector make furniture and related articles, such as mattresses, window blinds, cabinets, and fixtures. The processes used in the manufacture of furniture include the cutting, bending, molding, laminating, and assembly of such materials as wood, metal, glass, plastics, and rattan. However, the production process for furniture is not solely bending metal, cutting and shaping wood, or extruding and molding plastics. Design and fashion trends play an important part in the production of furniture. The integrated design of the article for both esthetic and functional qualities is also a major part of the process of manufacturing furniture. Design services may be performed by the furniture establishment's work force or may be purchased from industrial designers.

Furniture may be made of any material, but the most common ones used in North America are metal and wood. Furniture manufacturing establishments may specialize in making articles primarily from one material. Some of the

equipment required to make a wooden table, for example, is different from that used to make a metal one. However, furniture is usually made from several materials. A wooden table might have metal brackets, and a wooden chair, a fabric or plastics seat. Therefore, in NAICS, furniture initially is classified based on the type of furniture (application for which it is designed) rather than the material used. For example, an upholstered sofa is treated as household furniture, although it may also be used in hotels or offices.

When classifying furniture according to the component material from which it is made, furniture made from more than one material is classified based on the material used in the frame, or if there is no frame, the predominant component material. Upholstered household furniture (excluding kitchen and dining room chairs with upholstered seats) is classified without regard to the frame material. Kitchen or dining room chairs with upholstered seats are classified according to the frame material.

Furniture may be made on a stock or custom basis and may be shipped assembled or unassembled (i.e., knock-down). The manufacture of furniture parts and frames is included in this subsector.

Some of the processes used in furniture manufacturing are similar to processes that are used in other segments of manufacturing. For example, cutting and assembly occurs in the production of wood trusses that are classified in Subsector 321, Wood Product Manufacturing. However, the multiple processes that distinguish wood furniture manufacturing from wood product manufacturing warrant inclusion of wooden furniture manufacturing in the Furniture and Related Product Manufacturing subsector. Metal furniture manufacturing uses techniques that are also employed in the manufacturing of roll-formed products classified in Subsector 332, Fabricated Metal Product Manufacturing. The molding process for plastics furniture is similar to the molding of other plastics products. However, plastics furniture producing establishments tend to specialize in furniture.

NAICS attempts to keep furniture manufacturing together, but there are two notable exceptions: seating for transportation equipment and laboratory and hospital furniture. These exceptions are related to that fact that some of the aspects of the production process for these products, primarily the design, are highly integrated with that of other manufactured goods, namely motor vehicles and health equipment.

3371 Household and Institutional Furniture and Kitchen Cabinet Manufacturing

This industry group comprises establishments manufacturing household-type furniture, such as living room, kitchen, and bedroom furniture, and institutional (i.e., public building) furniture, such as furniture for schools, theaters, and churches.

33711 Wood Kitchen Cabinet and Countertop Manufacturing

This industry comprises establishments primarily engaged in manufacturing wood or plastics laminated on wood kitchen cabinets, bathroom vanities, and countertops (except freestanding). The cabinets and counters may be made on a stock or custom basis.

337110 Wood Kitchen Cabinet and Countertop Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing wood or plastics laminated on wood kitchen cabinets, bathroom vanities, and countertops (except freestanding). The cabinets and counters may be made on a stock or custom basis.

The data published with NAICS code 3371110 include the following SIC industries:

2434 Wood kitchen cabinets

2541 Wood partitions and fixtures (pt)

5712 Furniture stores (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337110 include establishments primarily engaged in manufacturing wood countertops as part of wood office and store fixtures. The NAICS definitions will be fully implemented with the 2002 Economic Census.

33712 Household and Institutional Furniture Manufacturing

This industry comprises establishments primarily engaged in manufacturing household-type and public building furniture (i.e., library, school, theater, and church furniture). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337121 Upholstered Household Furniture Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing upholstered household-type furniture. The furniture may be made on a stock or custom basis.

The data published with NAICS code 337121 include the following SIC industries:

2512 Upholstered household furniture

2515 Mattresses and bedsprings (pt)

5712 Furniture stores (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337121 do not include establishments primarily engaged in manufacturing upholstered metal household furniture. The NAICS definitions will be fully implemented with the 2002 Economic Census.

337122 Nonupholstered Wood Household Furniture Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing nonupholstered wood household-type furniture and freestanding cabinets (except television, radio, and sewing machine cabinets). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

The data published with NAICS code 337122 include the following SIC industries:

2511 Wood household furniture

5712 Furniture stores (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337122 include establishments primarily engaged in manufacturing wood box spring frames. The NAICS definitions will be fully implemented with the 2002 Economic Census.

337124 Metal Household Furniture Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing metal household-type furniture and freestanding cabinets. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

The data published with NAICS code 337124 include the following SIC industry:

2514 Metal household furniture

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337124 include establishments primarily engaged in manufacturing upholstered metal household furniture or metal box spring frames. The NAICS definitions will be fully implemented with the 2002 Economic Census.

337125 Household Furniture (Except Wood and Metal) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing household-type furniture of materials other than wood or metal, such as plastics, reed,

rattan, wicker, and fiberglass. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

The data published with NAICS code 337125 include the following SIC industry:

2519 Household furniture, n.e.c.

337127 Institutional Furniture Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing institutional-type furniture (e.g., library, school, theater, and church furniture). The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

The data published with NAICS code 337127 include the following SIC industries:

2531 Public building and related furniture (pt)

2599 Furniture and fixtures, n.e.c. (pt)

3952 Lead pencils and art goods (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337127 do not include establishments primarily engaged in manufacturing wood or nonwood lunchroom tables and chairs. The NAICS definitions will be fully implemented with the 2002 Economic Census.

337129 Wood Television, Radio, and Sewing Machine Cabinet Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing wood cabinets used as housings by television, stereo, loudspeaker, and sewing machine manufacturers.

The data published with NAICS code 337129 include the following SIC industry:

2517 Wood TV and radio cabinets

3372 Office Furniture (Including Fixtures) Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33721, Office Furniture (Including Fixtures) Manufacturing.

33721 Office Furniture (Including Fixtures) Manufacturing

This industry comprises establishments primarily engaged in manufacturing office furniture and/or office and store fixtures. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

337211 Wood Office Furniture Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing wood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

The data published with NAICS code 337211 include the following SIC industry:

2521 Wood office furniture

337212 Custom Architectural Woodwork and Millwork Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing custom designed interiors consisting of architectural woodwork and fixtures utilizing wood, wood products, and plastics laminates. All of the industry output is made to individual order on a job shop basis and requires skilled craftsmen as a labor input. A job might include custom manufacturing of display fixtures, gondolas, wall shelving units, entrance and window architectural detail, sales and reception counters, wall paneling, and matching furniture.

The data published with NAICS code 337212 include the following SIC industry:

2541 Wood partitions and fixtures (pt)

337214 Office Furniture (Except Wood) Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing nonwood office-type furniture. The furniture may be made on a stock or custom basis and may be assembled or unassembled (i.e., knockdown).

The data published with NAICS code 337214 include the following SIC industry:

2522 Office furniture, except wood

337215 Showcase, Partition, Shelving, and Locker Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing wood and nonwood office and store fixtures, shelving, lockers, frames, partitions, and related fabricated products of wood and nonwood materials, including plastics laminated fixture tops. The products are made on a stock basis and may be assembled or unassembled (i.e., knockdown). Establishments exclusively making furniture parts (e.g., frames) are included in this industry.

The data published with NAICS code 337215 include the following SIC industries:

2426 Hardwood dimension and flooring mills (pt)

2541 Wood partitions and fixtures (pt)

2542 Partitions and fixtures, except wood

3499 Fabricated metal products, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 337215 include establishments primarily engaged in manufacturing wood or non-wood lunchroom tables and chairs, but do not include establishments primarily engaged in manufacturing wood or metal box spring frames, finished plastic furniture parts, convertible bed sleeper mechanisms or chair glides. The NAICS definitions will be fully implemented with the 2002 Economic Census.

3379 Other Furniture Related Product Manufacturing

This industry group comprises establishments manufacturing furniture related products, such as mattresses, blinds, and shades.

33791 Mattress Manufacturing

This industry comprises establishments primarily engaged in manufacturing innerspring, box spring, and noninnerspring mattresses, including mattresses for waterbeds.

337910 Mattress Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing innerspring, box spring, and noninnerspring mattresses, including mattresses for waterbeds.

The data published with NAICS code 337910 include the following SIC industry:

2515 Mattresses and bedsprings (pt)

33792 Blind and Shade Manufacturing

This industry comprises establishments primarily engaged in manufacturing one or more of the following: venetian blinds, other window blinds, shades; curtain and drapery rods, poles; and/or curtain and drapery fixtures. The blinds and shades may be made on a stock or custom basis and may be made of any material.

337920 Blind and Shade Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing one or more of the following: venetian blinds, other window blinds, shades; curtain and drapery rods, poles; and/or curtain and drapery fixtures. The blinds and shades may be made on a stock or custom basis and may be made of any material.

The data published with NAICS code 337920 include the following SIC industry:

2591 Drapery hardware, blinds, and shades

339 Miscellaneous Manufacturing

Industries in the Miscellaneous Manufacturing subsector make a wide range of products that cannot readily be classified in specific NAICS subsectors in manufacturing. Processes used by these establishments vary significantly, both among and within industries. For example, a variety of manufacturing processes are used in manufacturing sporting and athletic goods that include products, such as tennis racquets and golf balls. The processes for these products differ from each other, and the processes differ significantly from the fabrication processes used in making dolls or toys, the melting and shaping of precious metals to make jewelry, and the bending, forming, and assembly used in making medical products.

The industries in this subsector are defined by what is made rather than how it is made. Although individual establishments might be appropriately classified elsewhere in the NAICS structure, for historical continuity, these product-based industries were maintained. In most cases, no one process or material predominates for an industry.

Establishments in this subsector manufacture products as diverse as medical equipment and supplies, jewelry, sporting goods, toys, and office supplies.

3391 Medical Equipment and Supplies Manufacturing

This NAICS industry group includes establishments classified in NAICS Industry 33911, Medical Equipment and Supplies Manufacturing.

33911 Medical Equipment and Supplies Manufacturing

This industry comprises establishments primarily engaged in manufacturing medical equipment and supplies. Examples of products made by these establishments are laboratory apparatus and furniture, surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, dentures, and orthodontic appliances.

339111 Laboratory Apparatus and Furniture Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing laboratory apparatus and laboratory and hospital furniture (except dental). Examples of products made by these establishments are hospital beds, operating room tables, laboratory balances and scales, furnaces, ovens, centrifuges, cabinets, cases, benches, tables, and stools.

The data published with NAICS code 339111 include the following SIC industry:

3821 Laboratory apparatus and furniture

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 339111 do not include establishments primarily engaged in the manufacture of hospital beds or operating tables. The NAICS definitions will be fully implemented with the 2002 Economic Census.

339112 Surgical and Medical Instrument Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing medical, surgical, ophthalmic, and veterinary instruments and apparatus (except electrotherapeutic, electromedical, and irradiation apparatus). Examples of products made by these establishments are syringes, hypodermic needles, anesthesia apparatus, blood transfusion equipment, catheters, surgical clamps, and medical thermometers.

The data published with NAICS code 339112 include the following SIC industries:

3829 Measuring and controlling devices, n.e.c. (pt)

3841 Surgical and medical instruments

339113 Surgical Appliance and Supplies Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing surgical appliances and supplies. Examples of products made by these establishments are orthopedic devices, prosthetic appliances, surgical dressings, crutches, surgical sutures, and personal industrial safety devices (except protective eyewear).

The data published with NAICS code 339113 include the following SIC industries:

2599 Furniture and fixtures, n.e.c. (pt)

3842 Surgical appliances and supplies (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 339113 do not include establishments primarily engaged in the manufacture of rubber gloves and life jackets. The NAICS definitions will be fully implemented with the 2002 Economic Census.

339114 Dental Equipment and Supplies Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing dental equipment and supplies used by dental laboratories and offices of dentists, such as dental chairs, dental instrument delivery systems, dental hand instruments, and dental impression material.

The data published with NAICS code 339114 include the following SIC industries:

3699 Electrical equipment and supplies, n.e.c. (pt)

3843 Dental equipment and supplies

339115 Ophthalmic Goods Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing ophthalmic goods. Examples of products made by these establishments are prescription eyeglasses (except manufactured in a retail setting), contact lenses, sunglasses, eyeglass frames, and reading glasses made to standard powers.

The data published with NAICS code 339115 include the following SIC industry:

3851 Ophthalmic goods

339116 Dental Laboratories

This U.S. industry comprises establishments primarily engaged in manufacturing dentures, crowns, bridges, and orthodontic appliances customized for individual application.

The data published with NAICS code 339116 include the following SIC industry:

8072 Dental laboratories

3399 Other Miscellaneous Manufacturing

This NAICS industry group includes establishments classified in the following NAICS Industries: 33991, Jewelry and Silverware Manufacturing; 33992, Sporting and Athletic Goods Manufacturing; 33993, Doll, Toy, and Game Manufacturing; 33994, Office Supplies (Except Paper) Manufacturing; 33995, Sign Manufacturing; and 33999, All Other Miscellaneous Manufacturing.

33991 Jewelry and Silverware Manufacturing

This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing, engraving, chasing, or etching jewelry; (2) manufacturing metal personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases); (3) manufacturing, engraving, chasing, or etching precious metal solid, precious metal clad, or pewter cutlery and flatware; (4) manufacturing, engraving, chasing, or etching personal metal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases); (5) stamping coins; (6) manufacturing unassembled jewelry parts and stock shop products, such as sheet, wire, and tubing; (7) cutting, slabbing, tumbling, carving, engraving, polishing, or faceting precious or semiprecious stones and gems; (8) recutting, repolishing, and setting gem stones; and (9) drilling, sawing, and peeling cultured and costume pearls.

339911 Jewelry (Except Costume) Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing, engraving, chasing, or etching precious metal solid or precious metal clad jewelry; (2) manufacturing, engraving, chasing, or etching personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases) made of precious solid or clad metal; and (3) stamping coins.

The data published with NAICS code 339911 include the following SIC industries:

3479 Metal coating and allied services (pt)

3911 Jewelry, precious metal

339912 Silverware and Holloware Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing, engraving, chasing, or etching precious metal solid, precious metal clad, or pewter flatware and other plated ware.

The data published with NAICS code 339912 include the following SIC industries:

3479 Metal coating and allied services (pt)

3914 Silverware and plated ware (pt)

339913 Jewelers' Material and Lapidary Work Manufacturing

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing unassembled jewelry parts and stock shop products, such as sheet, wire, and tubing; (2) cutting, slabbing, tumbling, carving, engraving, polishing or faceting precious or semiprecious stones and gems; (3) recutting, repolishing, and setting gem stones; and (4) drilling, sawing, and peeling cultured pearls.

The data published with NAICS code 339913 include the following SIC industry:

3915 Jewelers' materials and lapidary work

339914 Costume Jewelry and Novelty Manufacturing

This U.S. industry comprises establishments primarily engaged in (1) manufacturing, engraving, chasing, and etching costume jewelry; and/or (2) manufacturing, engraving, chasing, or etching nonprecious metal personal goods (i.e., small articles carried on or about the person, such as compacts or cigarette cases). This industry includes establishments primarily engaged in manufacturing precious plated jewelry and precious plated personal goods.

The data published with NAICS code 339914 include the following SIC industries:

3479 Metal coating and allied services (pt)

3499 Fabricated metal products, n.e.c. (pt)

3961 Costume jewelry

33992 Sporting and Athletic Goods Manufacturing

This industry comprises establishments primarily engaged in manufacturing sporting and athletic goods (except apparel and footwear).

339920 Sporting and Athletic Goods Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing sporting and athletic goods (except apparel and footwear).

The data published with NAICS code 339920 include the following SIC industry:

3949 Sporting and athletic goods, n.e.c.

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 339920 do not include establishments primarily engaged in the manufacture of wet suits. The NAICS definitions will be fully implemented with the 2002 Economic Census.

33993 Doll, Toy, and Game Manufacturing

This industry comprises establishments primarily engaged in manufacturing dolls, toys, and games, such as complete dolls, doll parts, doll clothes, action figures, toys, games (including electronic), hobby kits, and children's vehicles (except metal bicycles and tricycles).

339931 Doll and Stuffed Toy Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing complete dolls, doll parts, and doll clothes, action figures, and stuffed toys.

The data published with NAICS code 339931 include the following SIC industry:

3942 Dolls

339932 Game, Toy, and Children's Vehicle Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing games (including electronic), toys, and children's vehicles (except bicycles and metal tricycles).

The data published with NAICS code 339932 include the following SIC industry:

3944 Games, toys, and children's vehicles (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 339932 do not include

establishments primarily engaged in the manufacture of rubber toys, except dolls or embroidery kits. The NAICS definitions will be fully implemented with the 2002 Economic Census.

33994 Office Supplies (Except Paper) Manufacturing

This industry comprises establishments primarily engaged in manufacturing office supplies. Examples of products made by these establishments are pens, pencils, felt tip markers, crayons, chalk, pencil sharpeners, staplers, hand operated stamps, modeling clay, and inked ribbons.

339941 Pen and Mechanical Pencil Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing pens, ballpoint pen refills and cartridges, mechanical pencils, and felt tipped markers.

The data published with NAICS code 339941 include the following SIC industry:

3951 Pens and mechanical pencils

339942 Lead Pencil and Art Goods Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing nonmechanical pencils and art goods. Examples of products made by these establishments are pencil leads, crayons, chalk, framed blackboards, pencil sharpeners, staplers, artists' palettes and paints, and modeling clay.

The data published with NAICS code 339942 include the following SIC industries:

2531 Public building and related furniture (pt)

3579 Office machines, n.e.c. (pt)

3952 Lead pencils and art goods (pt)

339943 Marking Device Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing marking devices, such as hand operated stamps, embossing stamps, stamp pads, and stencils.

The data published with NAICS code 339943 include the following SIC industry:

3953 Marking devices

339944 Carbon Paper and Inked Ribbon Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing carbon paper and inked ribbons.

The data published with NAICS code 339944 include the following SIC industry:

3955 Carbon paper and inked ribbons

33995 Sign Manufacturing

This industry comprises establishments primarily engaged in manufacturing signs and related displays of all materials (except printing paper and paperboard signs, notices, displays).

339950 Sign Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing signs and related displays of all materials (except printing paper and paperboard signs, notices, displays).

The data published with NAICS code 339950 include the following SIC industries:

3993 Signs and advertising specialties

33999 All Other Miscellaneous Manufacturing

This industry comprises establishments primarily engaged in miscellaneous manufacturing (except medical equipment and supplies, jewelry and flatware, sporting and athletic goods, dolls, toys, games, office supplies (except paper), and signs).

339991 Gasket, Packing, and Sealing Device Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing gaskets, packing, and sealing devices of all materials.

The data published with NAICS code 339991 include the following SIC industry:

3053 Gaskets, packing and sealing devices

339992 Musical Instrument Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing musical instruments (except toys).

The data published with NAICS code 339992 include the following SIC industry:

3931 Musical instruments

339993 Fastener, Button, Needle, and Pin Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing fasteners, buttons, needles, pins, and buckles (except precious metals or precious and semiprecious stones and gems).

The data published with NAICS code 339993 include the following SIC industries:

3131 Footwear cut stock and findings (pt)

3965 Fasteners, buttons, needles, and pins

339994 Broom, Brush, and Mop Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing brooms, mops, and brushes.

The data published with NAICS code 339994 include the following SIC industries:

2392 Housefurnishings, n.e.c. (pt)

3991 Brooms and brushes

339995 Burial Casket Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing burial caskets, cases, and vaults (except concrete).

The data published with NAICS code 339995 include the following SIC industry:

3995 Burial caskets

339999 All Other Miscellaneous Manufacturing

This U.S. industry comprises establishments primarily engaged in miscellaneous manufacturing (except medical

equipment and supplies, jewelry and flatware, sporting and athletic goods, dolls, toys, games, office supplies (except paper), musical instruments, fasteners, buttons, needles, pins, brooms, brushes, mops, and burial caskets).

The data published with NAICS code 339999 include the following SIC industries:

2499 Wood products, n.e.c. (pt)

3999 Manufacturing industries, n.e.c. (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census – Manufacturing did not fully implement the conversion to NAICS. Data for NAICS industry 339999 do not include establishments primarily engaged in the manufacture of electronic cigarette lighters. The NAICS definitions will be fully implemented with the 2002 Economic Census.

Appendix C.

Coverage and Methodology

MAIL/NONMAIL UNIVERSE

The manufacturing universe includes about 400,000 establishments. This number includes those industries in the North American Industry Classification System (NAICS) definition of manufacturing, but not those industries leaving the manufacturing sector in the classification change. The amounts of information requested from manufacturing establishments were dependent upon a number of factors. The more important considerations were the size of the company and whether it was included in the annual survey of manufactures (ASM). The methods of obtaining information for the various subsets of the universe to arrive at the aggregate figures shown in the publication are described below:

1. Small single-establishment companies not sent a report form.

Approximately 40 percent of the manufacturing establishments were small single-establishment companies that were excused from filing a census report. Selection of these establishments was based on two factors: annual payroll and our ability to assign the correct six-digit NAICS industry classification to the establishment. For each four-digit Standard Industrial Classification (SIC) industry code, an annual payroll cutoff was determined. These cutoffs were derived so that the establishments with payroll less than the cutoff were expected to account for no more than 3 percent of the value of shipments for the industry. Generally, all single-establishment companies with less than 5 employees were excused, while all establishments with more than 20 employees were mailed forms. Establishments below the cutoff that could not be directly assigned a six-digit NAICS code were mailed a classification report which requested information for assigning NAICS industry codes. Establishments below the cutoff that could be directly assigned a six-digit NAICS code were excused from filing any report. For below cutoff establishments, information on the physical location, payroll, and receipts was obtained from the administrative records of other Federal agencies under special arrangements that safeguarded their confidentiality.

Estimates of data for these small establishments were developed using industry averages in conjunction with the administrative information. The value of shipments and cost of materials were not distributed among specific products and materials for these

establishments but were included in the product and material “not specified by kind” (nsc) categories.

The industry classification codes included in the administrative-record files were assigned on the basis of brief descriptions of the general activity of the establishment. As a result, an indeterminate number of establishments were erroneously coded to a four-digit SIC industry and then erroneously re-coded to a six-digit NAICS industry. This was especially true whenever there was a relatively fine line of demarcation between industries or between manufacturing and nonmanufacturing activity.

Sometimes the administrative-record cases had only two- or three-digit SIC group classification codes available in the files. For the 1997 Economic Census – Manufacturing, these establishments were sent a separate classification form, which requested information on the products and services of the establishment. This form was used to code many of these establishments to the appropriate six-digit NAICS level. Establishments that did not return the classification form were coded later to those six-digit NAICS industries identified as “All other” industries within the given subsector.

As a result of these situations, a number of small establishments may have been misclassified by industry. However, such possible misclassification has no significant effect on the statistics other than on the number of companies and establishments.

The total establishment count for individual industries should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 employees or more are far more reliable than the count of total number of establishments.

2. Establishments sent a report form.

The establishments covered in the mail canvass were divided into three groups:

- a. ASM sample establishments.

This group accounts for approximately 15 percent of all manufacturing establishments. The ASM panel covers all the units of large manufacturing establishments as well as a sample of the medium and smaller establishments. The probability of selection was proportionate to size. For more information, see the Description of the ASM Survey Sample.

In an economic census year, the ASM report form (MA-1000) replaces the first page of the regular census form for those establishments included in the ASM. In addition to information on employment, payroll, and other items normally requested on the regular census form, establishments in the ASM sample were requested to supply additional information on gross book value of assets and capital expenditures. ASM establishments were also requested to provide information on retirements, depreciation, rental payments, and supplemental labor costs. For establishments not included in the ASM, these additional items were estimated using relationships observed in the ASM establishment data. The census statistics for these variables are a sum of the ASM establishment data and the estimated data for non-ASM establishments. ASM establishments were also requested to provide information for selected purchased services. The census statistics for the purchased service items were derived solely from the ASM establishments. See Appendix A, Explanation of Terms for an explanation of these items. The census part of the report form is 1 of 220 versions containing product, material, and special inquiries. The diversity of manufacturing activities necessitated the use of this many forms to canvass the 480 manufacturing industries. Each form was developed for a group of related industries.

Appearing on each form was a list of products primary to the group of related industries as well as secondary products and miscellaneous services that establishments classified in these industries were likely to perform. Respondents were requested to identify the products, the value of each product, and, in many cases, the quantity of the product shipped during the survey year. Space also was provided for the respondent to describe products not specifically identified on the form.

The report form also contained a materials-consumed inquiry which varied from form to form depending on the industries being canvassed. The respondents were asked to review a list of materials generally used in their production processes. From this list, each establishment was requested to identify those materials consumed during the survey year, the cost of each, and, in certain cases, the quantity consumed. Once again, space was provided for the respondent to describe significant materials not identified on the form.

A wide variety of special inquiries was included to measure activities peculiar to a given industry, such as operations performed and equipment used.

b. Large and medium establishments (non-ASM).

Approximately 30 percent of all manufacturing establishments were included in this group. A variable cutoff, based on administrative-record payroll data and determined on an industry-by-industry basis, was used to select those establishments that were to receive 1 of the 220 economic census – manufacturing regular forms. The first page, requesting establishment data for items such as employment and payroll, was standard but did not contain the detailed statistics included on the ASM form. The product, material, and special inquiry sections supplied were based on the historical industry classification of the establishment.

c. Small single-establishment companies (non-ASM).

This group includes approximately 15 percent of all manufacturing establishments. For those industries where application of the variable cutoff for administrative-record cases resulted in a large number of small establishments being included in the mail canvass, an abbreviated or short form was used. These establishments received 1 of the 31 versions of the short form, which requested summary product and material data and totals but no details on employment, payroll, cost of materials, inventories, and capital expenditures.

Use of the short form has no adverse effect on published totals for the industry statistics because the same data were collected on the short form as on the long form. However, detailed information on products and materials consumed was not collected on the short form; thus, its use would increase the value of the *nsk* categories.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each of the establishments covered in the 1997 Economic Census – Manufacturing was classified in 1 of 480 industries (473 manufacturing industries and 7 former manufacturing industries) in accordance with the industry definitions in the 1997 NAICS Manual. This is the first edition of the NAICS Manual and it is a major change from the 1987 SIC Manual that was used previously. Appendix A of the 1997 NAICS Manual notes the comparability between the 1987 SIC and 1997 NAICS classification systems. When applicable, Appendix G of this report shows the product class and product comparability between the two systems for data in this report.

In the NAICS system, an industry is generally defined as a group of establishments that have similar production processes. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added by manufacture, value of shipments, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the manufacturing sector for 1997, there are 21 subsectors (three-digit NAICS), 86 industry groups (four-digit NAICS), 184 NAICS industries (five-digit NAICS) that are comparable with Canadian and Mexican classification, and 473 U.S. industries (six-digit NAICS). This represents an expansion of the four-digit SIC-based U.S. industries from 459 in 1987. Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they originate. In the new system, there are about 1,500 product classes (seven-digit codes), about 6,000 census products, and an additional 3,700 CIR products (ten-digit codes). The ten-digit products are considered the primary products of the industry with the same first six digits. These counts do not include the seven former manufacturing industries that are included in the 1997 Economic Census – Manufacturing.

For the 1997 Economic Census – Manufacturing, all establishments were classified in particular industries based on the products they produced. If an establishment made products of more than one industry, it was classified in the industry with the largest product value. For 1997, there were no “resistance rules” or “frozen industries.”

In ASM years, establishments included in the ASM sample with certainty weights are reclassified by industry only if the change in the primary activity from the prior year is significant or if the change has occurred for 2 successive years. This procedure prevents reclassification when there are minor shifts in product mix.

In ASM years, establishments included in the ASM sample with noncertainty weight are not shifted from one industry classification to another. They are retained in the industry where they were classified in the base census year. However, in the following census year, these ASM plants are allowed to shift from one industry to another.

The results of these rules covering the switching of plants from one industry classification to another are that some industries comprise different mixes of establishments in different survey years. Hence, comparisons between prior-year and current-year published totals, particularly at the six-digit NAICS level, should be viewed with caution. This is particularly true for the comparison between the data shown for a census year versus the data shown for the previous ASM year.

As previously noted, the small establishments that may have been misclassified by industry are usually administrative-record cases whose industry codes were assigned on the basis of incomplete descriptions of the general activity of the establishment. Such possible misclassifications have no significant effect on the statistics other than on the number of companies and establishments.

Establishments frequently make products classified both in their industry (primary products) and other industries (secondary products). Industry statistics (employment, payroll, value added by manufacture, value of shipments, etc.) reflect the activities of the establishments which may make both primary and secondary products. Product statistics, however, represent the output of all establishments without regard for the classification of the producing establishment. For this reason, when relating the industry statistics, especially the value of shipments, to the product statistics, the composition of the industry’s output should be considered.

The extent to which industry and product statistics may be matched with each other is measured by the primary product specialization ratio and the coverage ratio. The primary product specialization ratio is the proportion of industry shipments accounted for by the primary products of establishments classified in the industry. The coverage ratio is the proportion of product shipments accounted for by establishments classified in the industry.

ESTABLISHMENT BASIS OF REPORTING

The economic census – manufacturing is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each location or establishment. The ASM also is conducted on an establishment basis, but separate reports are filed for just those establishments selected in the sample. Companies engaged in distinctly different lines of activity at one location are requested to submit separate reports if the plant records permit such a separation and if the activities are substantial in size.

In 1997, as in earlier years, a minimum size limit was set for inclusion of establishments in the census. All establishments employing one person or more at any time during the census year are included. The same size limitation has applied since 1947 in censuses and annual surveys of manufactures. In the 1939 and earlier censuses, establishments with less than \$5,000 value of products were excluded. The change in the minimum size limit in 1947 does not appreciably affect the historical comparability of the census figures except for data on number of establishments for a few industries.

The 1997 Economic Census – Manufacturing excludes data for central administrative offices (CAOs). These would include separately operated administrative offices, warehouses, garages, and other auxiliary units that service manufacturing establishments of the same company. These data are published in a separate report series.

DESCRIPTION OF THE ASM SURVEY SAMPLE

The annual survey of manufactures (ASM) sample is drawn for the second survey year after a census. The most recent sample was drawn for the 1994 survey year based on the 1992 Census of Manufactures. This sample will be in place through the 1998 ASM.

In 1992, there were approximately 370,000 individual manufacturing establishments. For sample efficiency and cost considerations, the 1992 manufacturing population was partitioned into two components for developing estimates within the ASM; a mail stratum and a nonmail stratum.

Mail stratum. The mail stratum of the survey is comprised of larger single-location manufacturing companies and all manufacturing establishments of multiunit companies (companies that operate at more than one physical location). Approximately 230,000 of the 370,000 establishments in the 1992 census were assigned to the mail stratum. On an annual basis, the mail stratum is supplemented with larger, newly active single-location companies identified from a list provided by the Internal Revenue Service (IRS) and new manufacturing locations of multiunit companies identified from the Census Bureau's Company Organization Survey (COS).

For the 1994 survey, a new sample of approximately 58,000 individual establishments was selected from the mail stratum assembled from the 1992 census. Supplemental samples representing both 1993 and 1994 births (newly active establishments that were not included in the 1992 census) were also selected. Establishments selected for the sample are mailed an ASM survey questionnaire for each year through 1998.

The 1994-98 ASM sample design is similar to the one used since 1984. Companies in the 1992 Census of Manufactures with manufacturing shipments of at least \$500 million were defined as company certainties. For these large companies, each manufacturing establishment is included in the mail sample. For the 1994-98 sample, there are approximately 650 certainty companies collectively accounting for over 18,000 establishments.

For the remaining portion of the mail component of the survey, the establishment was defined as the sample unit. All establishments with 250 employees or more were defined as employment certainties. In addition, all establishments producing products in SIC 3571 (Electronic Computers) were defined as certainties. Across these three arbitrary certainty classes, there were approximately 25,000 establishments included in the sample with certainty. Collectively, these certainty establishments accounted for approximately 80 percent of the total value of shipments in the 1992 Census of Manufactures.

Smaller establishments in the remaining portion of the mail stratum were sampled with probabilities ranging from .02 to 1.00. The initial probabilities of selection assigned to these establishments were proportionate to a measure-of-size determined for each establishment. The measure-of-size was a function of the establishment's 1992 industry classification, its 1992 product class data, and the historical variability of the year-to-year estimates of the product class estimates. For each product class (1,755) and four-digit industry (459), a desired reliability

constraint was specified. Using a technique developed by Dr. James R. Chromy of the Research Triangle Institute, the initial establishment probabilities were optimized such that the expected sample satisfied all industry and product class reliability constraints while the sample size was minimized. This technique reduces the likelihood of selecting nonrepresentative samples for individual product classes or industries.

This method of assigning probabilities based on product class shipments is motivated by our primary desire to produce reliable estimates of both product class and industry shipments. The high correlation between shipments and employment, value-added, and other general statistics assures that these variables will also be well represented by the sample. The actual sample selection procedure uses an independent chance of selection method (Poisson sampling) which permits us to prevent small establishments from being selected in consecutive samples without introducing a bias into the survey estimates.

Nonmail component. The initial nonmail component of the survey was comprised of approximately 140,000 small, single-establishment companies that were tabulated as administrative records in the 1992 Census of Manufactures. The nonmail stratum is also supplemented annually using the list of newly active single-location companies provided by the Internal Revenue Service (IRS) and payroll cutoffs. Companies with payroll below the payroll cutoff are added to the nonmail stratum. For this portion of the population, sampling is not used. The data for this group are estimated based on selected information obtained annually from the administrative records of the IRS and Social Security Administration (SSA). This administrative information, which includes payroll, total employment, industry classification, and physical location, is obtained under conditions which safeguard the confidentiality of both tax and census records.

DESCRIPTION OF THE ASM ESTIMATING PROCEDURE

Most of the ASM estimates derived for the mail stratum are computed using a difference estimator. At the establishment level, there is a strong correlation between the current-year data values and the corresponding 1992 (base) data values. Therefore, within the mailed stratum, for each item at each level of aggregation, an estimate of the "difference" between the current year and the base year is computed from sample cases and added to the corresponding base-year values. For the 1993-1997 ASM estimates, the 1992 Census of Manufactures values serve as the base year. For the 1998 ASM, the base will be updated to be the 1997 Economic Census – Manufacturing.

Due to the positive year-to-year correlation, estimates derived using this methodology are generally more reliable than comparable estimates developed from the current sample data alone. Estimates for the capital expenditures variables are not generated using the difference

estimator because the year-to-year correlations are considerably weaker. The standard linear estimator is used for these variables.

For the nonmail stratum, estimates for payroll and employment are directly tabulated from the administrative-record data provided by IRS and SSA. Estimates of data other than payroll and employment are developed from industry averages. Although the nonmail stratum contains approximately 170,000 individual establishments in 1994, it accounts for less than 2 percent of the estimate for total value of shipments at the total manufacturing level.

Corresponding estimates for the mail and nonmail components are combined to produce the estimates included in this publication.

QUALIFICATIONS OF THE ASM DATA

The estimates developed from the sample are apt to differ somewhat from the results of a survey covering all companies in the sample lists but otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the ASM is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data for selected ASM statistics in this report. They are represented in the form of relative standard errors (the standard errors divided by the estimated values to which they refer).

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals (ranges that would include the comparable, complete-coverage value for specified percentages of all the possible samples).

The complete-coverage value would be included in the range:

From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.

From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.

From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference that the comparable, complete-survey result would be within the indicated ranges would be correct in approximately the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection, reporting, coding, transcription, imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables in this publication having an associated standard error exceeding 15 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

DATA FROM THE CURRENT INDUSTRIAL REPORTS (CIR)

The CIR program provides product statistics for selected manufacturing industries at the U.S. level annually and, in some cases, monthly and/or quarterly. When detail product data are collected in the CIR, they are not also collected in the census. However, the annual CIR data are included in the census Product Summary report.

The CIR program uses a unified data collection, processing, and publication system. The Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic

census – manufacturing. The economic census – manufacturing provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. While the CIR program includes both mandatory and voluntary surveys, the annual data are mandatory.

DUPLICATION IN COST OF MATERIALS AND VALUE OF SHIPMENTS

Data for cost of materials and value of shipments include varying amounts of duplication, especially at higher levels of aggregation. This is because the products of one establishment may be the materials of another. The value added statistics avoid this duplication and are, for most purposes, the best measure for comparing the relative economic importance of industries and geographic areas.

VALUE OF INDUSTRY SHIPMENTS COMPARED WITH VALUE OF PRODUCT SHIPMENTS

The 1997 Economic Census – Manufacturing shows value of shipments data for industries and products. In the industry statistics tables and files, these data represent the total value of shipments of all establishments classified in a particular industry. The data include the shipments of the products classified in the industry (primary to the industry), products classified in other industries (secondary to the industry), and miscellaneous receipts (repair work, sale of scrap, research and development, installation receipts, and resales). Value of product shipments shown in the products statistics tables and files represent the total value of all products shipped that are classified as primary to an industry regardless of the classification of the producing establishment.

Appendix D. Geographic Notes

MASSACHUSETTS

There are no geographic notes for the state of Massachusetts.

Appendix E. Metropolitan Areas

MASSACHUSETTS

Barnstable—Yarmouth, MA MSA

Barnstable County, MA
Barnstable city, MA
Dennis town, MA
Harwich town, MA
Sandwich town, MA
Yarmouth town, MA

Boston, MA—NH PMSA

Bristol County, MA (Part)
Mansfield town, MA
Norton town, MA
Taunton city, MA
Essex County, MA (Part)
Amesbury town, MA
Beverly city, MA
Danvers town, MA
Gloucester city, MA
Ipswich town, MA
Lynn city, MA
Lynnfield town, MA
Marblehead town, MA
Newburyport city, MA
Peabody city, MA
Salem city, MA
Saugus town, MA
Swampscott town, MA
Middlesex County, MA (Part)
Acton town, MA
Arlington town, MA
Ashland town, MA
Bedford town, MA

Boston, MA—NH PMSA—Con.

Middlesex County, MA (Part)—Con.

Belmont town, MA
Burlington town, MA
Cambridge city, MA
Concord town, MA
Everett city, MA
Framingham town, MA
Holliston town, MA
Hopkinton town, MA
Hudson town, MA
Lexington town, MA
Malden city, MA
Marlborough city, MA
Maynard town, MA
Medford city, MA
Melrose city, MA
Natick town, MA
Newton city, MA
North Reading town, MA
Reading town, MA
Somerville city, MA
Stoneham town, MA
Sudbury town, MA
Wakefield town, MA
Waltham city, MA
Watertown city, MA
Wayland town, MA
Weston town, MA
Wilmington town, MA
Winchester town, MA
Woburn city, MA

Boston, MA—NH PMSA—Con.

Norfolk County, MA (Part)
Bellingham town, MA
Braintree town, MA
Brookline town, MA
Canton town, MA
Dedham town, MA
Foxborough town, MA
Franklin city, MA
Holbrook town, MA
Medfield town, MA
Medway town, MA
Milton town, MA
Needham town, MA
Norfolk town, MA
Norwood town, MA
Quincy city, MA
Randolph town, MA
Sharon town, MA
Stoughton town, MA
Walpole town, MA
Wellesley town, MA
Westwood town, MA
Weymouth town, MA
Wrentham town, MA
Plymouth County, MA (Part)
Carver town, MA
Duxbury town, MA
Hanover town, MA
Hingham town, MA
Hull town, MA
Kingston town, MA
Marshfield town, MA
Pembroke town, MA
Plymouth town, MA
Rockland town, MA
Scituate town, MA
Wareham town, MA

Boston, MA—NH PMSA—Con.

Suffolk County, MA (Part)
Boston city, MA
Chelsea city, MA
Revere city, MA
Winthrop town, MA
Worcester County, MA (Part)
Harvard town, MA
Milford town, MA
Rockingham County, NH (Part)

**Boston—Worcester—Lawrence, MA—NH—ME—CT
CMSA**

Boston, MA—NH PMSA
Bristol County, MA (Part)
Mansfield town, MA
Norton town, MA
Taunton city, MA
Essex County, MA (Part)
Amesbury town, MA
Beverly city, MA
Danvers town, MA
Gloucester city, MA
Ipswich town, MA
Lynn city, MA
Lynnfield town, MA
Marblehead town, MA
Newburyport city, MA
Peabody city, MA
Salem city, MA
Saugus town, MA
Swampscott town, MA
Middlesex County, MA (Part)
Acton town, MA
Arlington town, MA
Ashland town, MA
Bedford town, MA
Belmont town, MA
Burlington town, MA

**Boston—Worcester—Lawrence, MA—NH—ME—CT
CMSA—Con.**

Boston, MA—NH PMSA—Con.

Middlesex County, MA (Part)—Con.

Cambridge city, MA
Concord town, MA
Everett city, MA
Framingham town, MA
Holliston town, MA
Hopkinton town, MA
Hudson town, MA
Lexington town, MA
Malden city, MA
Marlborough city, MA
Maynard town, MA
Medford city, MA
Melrose city, MA
Natick town, MA
Newton city, MA
North Reading town, MA
Reading town, MA
Somerville city, MA
Stoneham town, MA
Sudbury town, MA
Wakefield town, MA
Waltham city, MA
Watertown city, MA
Wayland town, MA
Weston town, MA
Wilmington town, MA
Winchester town, MA
Woburn city, MA

Norfolk County, MA (Part)

Bellingham town, MA
Braintree town, MA
Brookline town, MA
Canton town, MA
Dedham town, MA

**Boston—Worcester—Lawrence, MA—NH—ME—CT
CMSA—Con.**

Boston, MA—NH PMSA—Con.

Norfolk County, MA (Part)—Con.

Foxborough town, MA
Franklin city, MA
Holbrook town, MA
Medfield town, MA
Medway town, MA
Milton town, MA
Needham town, MA
Norfolk town, MA
Norwood town, MA
Quincy city, MA
Randolph town, MA
Sharon town, MA
Stoughton town, MA
Walpole town, MA
Wellesley town, MA
Westwood town, MA
Weymouth town, MA
Wrentham town, MA

Plymouth County, MA (Part)

Carver town, MA
Duxbury town, MA
Hanover town, MA
Hingham town, MA
Hull town, MA
Kingston town, MA
Marshfield town, MA
Pembroke town, MA
Plymouth town, MA
Rockland town, MA
Scituate town, MA
Wareham town, MA

Suffolk County, MA (Part)

Boston city, MA
Chelsea city, MA

**Boston—Worcester—Lawrence, MA—NH—ME—CT
CMSA—Con.**

Boston, MA—NH PMSA—Con.
Suffolk County, MA (Part)—Con.
Revere city, MA
Winthrop town, MA
Worcester County, MA (Part)
Harvard town, MA
Milford town, MA
Rockingham County, NH (Part)
Brockton, MA PMSA
Bristol County, MA (Part)
Easton town, MA
Raynham town, MA
Norfolk County, MA (Part)
Plymouth County, MA (Part)
Abington town, MA
Bridgewater town, MA
Brockton city, MA
East Bridgewater town, MA
Middleborough town, MA
Whitman town, MA
Fitchburg—Leominster, MA PMSA
Middlesex County, MA (Part)
Worcester County, MA (Part)
Fitchburg city, MA
Gardner city, MA
Leominster city, MA
Lawrence, MA—NH PMSA
Essex County, MA (Part)
Andover town, MA
Haverhill city, MA
Lawrence city, MA
Methuen city, MA
North Andover town, MA
Rockingham County, NH (Part)
Derry town, NH
Salem town, NH

**Boston—Worcester—Lawrence, MA—NH—ME—CT
CMSA—Con.**

Lowell, MA—NH PMSA
Middlesex County, MA (Part)
Billerica town, MA
Chelmsford town, MA
Dracut town, MA
Lowell city, MA
Pepperell town, MA
Tewksbury town, MA
Westford town, MA
Hillsborough County, NH (Part)
Pelham town, NH
Manchester, NH PMSA
Hillsborough County, NH (Part)
Bedford town, NH
Goffstown town, NH
Manchester city, NH
Merrimack County, NH (Part)
Rockingham County, NH (Part)
Londonderry town, NH
Nashua, NH PMSA
Hillsborough County, NH (Part)
Hudson town, NH
Merrimack town, NH
Milford town, NH
Nashua city, NH
New Bedford, MA PMSA
Bristol County, MA (Part)
Dartmouth town, MA
Fairhaven town, MA
New Bedford city, MA
Plymouth County, MA (Part)
Portsmouth—Rochester, NH—ME PMSA
York County, ME (Part)
York town, ME

**Boston—Worcester—Lawrence, MA—NH—ME—CT
CMSA—Con.**

Portsmouth—Rochester, NH—ME PMSA—Con.

Rockingham County, NH (Part)

Exeter town, NH

Hampton town, NH

Portsmouth city, NH

Strafford County, NH (Part)

Dover city, NH

Durham town, NH

Rochester city, NH

Somersworth city, NH

Worcester, MA—CT PMSA

Windham County, CT (Part)

Hampden County, MA (Part)

Worcester County, MA (Part)

Auburn town, MA

Charlton town, MA

Clinton town, MA

Grafton town, MA

Holden town, MA

Leicester town, MA

Millbury town, MA

Northborough town, MA

Northbridge town, MA

Oxford town, MA

Shrewsbury town, MA

Southbridge town, MA

Spencer town, MA

Uxbridge town, MA

Webster town, MA

Westborough town, MA

Worcester city, MA

Brockton, MA PMSA

Bristol County, MA (Part)

Easton town, MA

Raynham town, MA

Norfolk County, MA (Part)

Brockton, MA PMSA—Con.

Plymouth County, MA (Part)

Abington town, MA

Bridgewater town, MA

Brockton city, MA

East Bridgewater town, MA

Middleborough town, MA

Whitman town, MA

Fitchburg—Leominster, MA PMSA

Middlesex County, MA (Part)

Worcester County, MA (Part)

Fitchburg city, MA

Gardner city, MA

Leominster city, MA

Lawrence, MA—NH PMSA

Essex County, MA (Part)

Andover town, MA

Haverhill city, MA

Lawrence city, MA

Methuen city, MA

North Andover town, MA

Rockingham County, NH (Part)

Derry town, NH

Salem town, NH

Lowell, MA—NH PMSA

Middlesex County, MA (Part)

Billerica town, MA

Chelmsford town, MA

Dracut town, MA

Lowell city, MA

Pepperell town, MA

Tewksbury town, MA

Westford town, MA

Hillsborough County, NH (Part)

Pelham town, NH

New Bedford, MA PMSA

Bristol County, MA (Part)
Dartmouth town, MA
Fairhaven town, MA
New Bedford city, MA
Plymouth County, MA (Part)

Pittsfield, MA MSA

Berkshire County, MA (Part)
Pittsfield city, MA

Providence—Fall River—Warwick, RI—MA MSA

Bristol County, MA (Part)
Attleboro city, MA
Fall River city, MA
North Attleborough town, MA
Seekonk town, MA
Somerset town, MA
Swansea town, MA
Westport town, MA
Bristol County, RI
Barrington town, RI
Bristol town, RI
Warren town, RI
Kent County, RI
Coventry town, RI
East Greenwich town, RI
Warwick city, RI
West Warwick town, RI
Newport County, RI (Part)
Tiverton town, RI
Providence County, RI
Burrillville town, RI
Central Falls city, RI
Cranston city, RI
Cumberland town, RI
East Providence city, RI
Johnston town, RI
Lincoln town, RI
North Providence town, RI

Providence—Fall River—Warwick, RI—MA MSA—Con.

Providence County, RI—Con.
North Smithfield town, RI
Pawtucket city, RI
Providence city, RI
Scituate town, RI
Smithfield town, RI
Woonsocket city, RI
Washington County, RI (Part)
Narragansett town, RI
North Kingstown town, RI
South Kingstown town, RI

Springfield, MA MSA

Franklin County, MA (Part)
Hampden County, MA (Part)
Agawam city, MA
Chicopee city, MA
East Longmeadow town, MA
Holyoke city, MA
Longmeadow town, MA
Ludlow town, MA
Palmer town, MA
Springfield city, MA
Westfield city, MA
West Springfield town, MA
Wilbraham town, MA
Hampshire County, MA (Part)
Amherst town, MA
Belchertown town, MA
Easthampton town, MA
Northampton city, MA
South Hadley town, MA

Worcester, MA—CT PMSA

Windham County, CT (Part)
Hampden County, MA (Part)

Worcester, MA—CT PMSA—Con.

Worcester County, MA (Part)
Auburn town, MA
Charlton town, MA
Clinton town, MA
Grafton town, MA
Holden town, MA
Leicester town, MA
Millbury town, MA
Northborough town, MA

Worcester, MA—CT PMSA—Con.

Northbridge town, MA
Oxford town, MA
Shrewsbury town, MA
Southbridge town, MA
Spencer town, MA
Uxbridge town, MA
Webster town, MA
Westborough town, MA
Worcester city, MA

