# All Other Miscellaneous Manufacturing

## 1997

Issued October 1999

EC97M-3399R

## **1997 Economic Census** *Manufacturing* Industry Series



Helping You Make Informed Decisions

U.S. Department of Commerce Economics and Statistics Administration U.S. CENSUS BUREAU



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## CONTENTS

	duction to the Economic Census	1 5
TAB	LES	
1. 2. 3. 4. 5. 6a. 6b. 7.	Industry Statistics on NAICS Basis With Distribution Among 1987 SIC-Based Industries: 1997 Industry Statistics for Selected States: 1997 Detailed Statistics by Industry: 1997 Industry Statistics by Employment Size: 1997 Industry Statistics by Industry and Primary Product Class Specialization: 1997 Products Statistics: 1997 and 1992 Product Class Shipments for Selected States: 1997 and 1992 . Materials Consumed by Kind: 1997 and 1992	7 7 8 9 10 11 13
APP	ENDIXES	
А. В. С. Е. F. G.	Explanation of Terms NAICS Codes, Titles, and Descriptions Coverage and Methodology Geographic Notes Metropolitan Areas Footnotes for Products Statistics and Materials Consumed by Kind Comparability of Product Classes and Product Codes: 1997 to 1992	A-1 B-1 C-1   G-1

-- Not applicable for this report.

## 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

#### 1997 ECONOMIC CENSUS

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 longterm 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, semiindependent 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 on NAICS Basis With Distribution Among 1987 SIC-Based Industries: 1997

NAICS			All	All employees Production workers							Total capital	
or SIC code	Industry	Com- panies <sup>1</sup>	estab- lish- ments <sup>2</sup>	Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)	Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	expendi- tures (\$1,000)
<b>339999</b> 249950 399980	All other miscellaneous mfg Wood products, n.e.c. (pt)	2 635 N	<b>2 691</b> 449	<b>72 632</b> 13 740	<b>1 763 913</b> 270 999	<b>51 769</b> 10 953	<b>103 594</b> 20 882	<b>953 423</b> 182 613	<b>4 351 002</b> 641 106	<b>3 712 890</b> 587 978	<b>8 046 078</b> 1 227 261	<b>359 766</b> 27 799
299900	Manufacturing industries, n.e.c. (pt)	N	2 242	58 892	1 492 914	40 816	82 712	770 810	3 709 896	3 124 912	6 818 817	331 967

[NAICS codes appear in bold type. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

<sup>1</sup>For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control. <sup>2</sup>Includes establishments with payroll at any time during the year.

## Table 2. Industry Statistics for Selected States: 1997

[States that are disclosures or with less than 100 employees are not shown. For explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

			All shments	All emp	oloyees	Pr	oduction work	ers				
Industry and geographic area	E1	Total	With 20 em- ploy- ees or more	Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)	Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
339999, ALL OTHER MISCELLANEOUS MFG												
United States	2	2 691	672	72 632	1 763 913	51 769	103 594	953 423	4 351 002	3 712 890	8 046 078	359 766
Alabama	-	23	6	1 081	23 176	733	1 472	10 858	56 511	58 901	116 067	3 753
Arizona	3	52	18	949	23 283	645	2 237	10 133	48 102	34 491	81 721	3 280
Arkansas	-	32	13	2 221	39 985	1 644	3 247	23 554	115 076	81 120	198 747	4 159
California	2	399	120	10 173	252 024	7 395	13 454	135 191	636 731	502 751	1 142 389	52 950
Colorado	5	49	10	539	13 409	298	487	5 819	34 697	14 148	49 067	1 533
Florida	3	145	25	1 747	36 005	1 262	2 063	21 755	85 923	63 009	150 460	4 737
	2	53	9	1 664	34 087	1 391	2 692	23 181	88 148	56 724	149 356	5 589
	-	14	3	157	2 973	107	165	1 336	7 892	4 436	12 691	527
	1	123	40	6 164	164 363	4 522	8 973	87 392	383 256	333 789	710 638	23 256
	-	50	17	1 626	37 104	1 304	2 190	23 518	98 758	73 645	173 488	4 842
Kentucky	7	14	6	337	8 427	247	412	4 660	31 447	47 233	78 627	2 735
Louisiana	2	12	1	102	1 753	74	97	1 020	2 860	1 983	4 847	225
Maine	2	24	6	361	6 690	275	428	3 828	18 121	11 524	28 399	1 091
Maryland	1	35	9	837	15 970	633	1 151	8 946	39 430	35 280	74 238	4 458
Massachusetts	1	61	15	2 815	92 558	1 462	2 797	41 112	196 409	183 138	379 649	7 701
Michigan .	1	83	13	1 059	29 298	759	1 582	17 048	66 296	45 484	112 319	6 277
Minnesota .	1	61	9	1 783	27 459	975	1 132	12 902	81 946	45 459	126 392	4 755
Mississispi	-	14	4	882	21 044	758	1 375	13 319	51 261	43 854	95 203	2 569
Missouri .	1	48	14	1 343	24 935	955	1 547	13 470	52 942	37 190	90 365	3 264
Nevada .	-	35	12	2 905	96 288	1 294	2 643	23 003	204 684	270 166	475 401	71 717
New Hampshire	1	18	3	314	8 201	236	394	3 721	18 054	9 262	27 216	774
	1	65	19	1 492	41 048	978	1 752	17 113	90 066	70 725	161 787	10 750
	7	23	4	273	8 274	182	311	4 458	19 717	13 222	32 636	1 068
	4	241	68	5 663	142 392	4 056	7 520	82 334	310 119	208 557	518 451	15 887
	2	75	31	3 816	95 402	2 866	4 991	56 193	291 085	321 968	598 877	30 372
Ohio	-	95	18	2 587	59 240	2 017	3 899	33 697	171 177	219 282	394 874	22 867
	1	23	6	665	10 209	434	638	5 961	47 564	32 402	79 183	696
	5	59	9	831	18 315	410	696	7 587	39 552	32 863	72 217	3 691
	1	98	27	3 790	104 557	2 733	5 174	64 671	268 636	195 995	458 069	15 299
	6	32	7	582	12 842	430	711	7 292	27 559	18 239	45 594	1 238
South Carolina	1	19	3	310	5 423	259	282	3 126	14 259	7 719	22 090	600
Tennessee	2	41	8	1 692	36 217	1 308	2 401	23 255	68 822	64 699	133 278	5 950
Texas	4	189	41	4 721	104 476	3 633	6 984	63 510	277 862	226 114	502 642	16 513
Virginia	-	37	12	1 914	49 771	1 633	2 927	31 681	110 918	113 895	223 193	3 043
Washington	3	69	13	664	13 816	496	840	8 378	32 267	25 678	55 628	2 434
Wisconsin	-	65	16	1 952	47 512	1 365	10 598	25 316	150 728	114 917	264 554	12 494

\* Hawaii has no incorporated places in the sense of functioning governmental units; however, in agreement with Hawaiian law, the Bureau of the Census reports data for census designated places (CDPs) which have been designated as place equivalents. Those CDPs, only for the state of Hawaii, with 2,500 or more population are recognized.

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

## Table 3. Detailed Statistics by Industry: 1997

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

Item	Value	Item	Value
339999, ALL OTHER MISCELLANEOUS MFG		339999, ALL OTHER MISCELLANEOUS MFG-Con.	
Companies <sup>1</sup> number	2 635	Value added\$1,000	4 351 002
All establishments	2 691 2 019 521 151	Total inventories, beginning of year       \$1,000         Finished goods inventories, beginning of year       \$1,000         Work-in-process inventories, beginning of year       \$1,000         Materials and supplies inventories, beginning of year       \$1,000	1 359 565 591 338 181 572 586 655
All employees         number.           Total compensation <sup>2</sup> \$1,000.           Annual payroll         \$1,000.           Total finge benefits         \$1,000.	72 632 2 132 822 1 763 913 368 909	Total inventories, end of year       \$1,000.         Finished goods inventories, end of year       \$1,000.         Work-in-process inventories, end of year       \$1,000.         Materials and supplies inventories, end of year       \$1,000.	1 404 368 595 987 194 737 613 644
Production workers, average for year	51 769 50 740 51 331	Gross book value of total assets at beginning of year\$1,000 Total capital expenditures (new and used)\$1,000 Capital expenditures for buildings and other structures	2 213 219 359 766
Production workers on August 12	51 331 52 169 52 836	(new and used)\$1,000 Capital expenditures for machinery and equipment (new	94 345
Production-worker hours	103 594 953 423	and used)\$1,000. Total retirements <sup>2</sup> \$1,000. Gross book value of total assets at end of year\$1,000.	265 421 128 758 2 444 227
Total cost of materials\$1,000	3 712 890	Total depreciation during year <sup>2</sup> \$1,000	210 049
Cost of materials, parts, containers, etc., consumed	3 195 622 328 889 21 461 53 729	Buildings and other structures rental payments <sup>2</sup> \$1,000           Machinery and equipment rental payments <sup>2</sup> \$1,000	129 252 68 163 61 089
Cost of contract work\$1,000	113 189	Cost of purchased services for the repair of buildings and other structures <sup>3</sup> \$1,000	6 387
Quantity of electricity purchased for heat and power	820 322	Cost of purchased services for the repair of machinery and	57
Total value of shipments\$1.000	8 046 078	equipment <sup>3</sup> \$1,000 Response coverage ratio <sup>4</sup> percent	18 898 57
Primary products value of shipments\$1,000 Secondary products value of shipments\$1,000	7 099 638 316 150	Cost of purchased communications services <sup>3</sup>	14 998 57
Total miscellaneous receipts	630 290 495 168	Cost of purchased legal services <sup>3</sup> \$1,000	10 140 57
Contract receipts		Cost of purchased accounting and bookkeeping services <sup>3</sup>	5 989 57
		Cost of purchased advertising services <sup>3</sup>	38 131
Primary products specialization ratio percent Value of primary products shipments made in all industries \$1,000		Cost of purchased software and other data processing	57
Value of primary products shipments made in this industry \$1,000 Value of primary products shipments made in other	7 099 638	Response coverage ratio <sup>4</sup>	7 598 57
industries\$1,000	296 481	Cost of purchased refuse removal (including hazardous waste) services <sup>3</sup> \$1,000.	4 302
Coverage ratio percent	95	Response coverage ratio <sup>4</sup> percent	57

<sup>1</sup>For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control. <sup>2</sup>These items are collected in the ASM and estimated for the remaining establishments; therefore, the levels of estimation are higher than for other items in the table. <sup>3</sup>Based on ASM sample data. <sup>4</sup>A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those ASM establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note: The amounts shown for purchased services reflect only those services that establishments purchase from other companies.

## Table 4. Industry Statistics by Employment Size: 1997

			All	All emp	oloyees	Pr	oduction work	ers				
Employment size class	E1	Total	With 20 em- ploy- ees or more	Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)	Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
339999, ALL OTHER MISCELLANEOUS MFG												
All establishments	2	2 691	672	72 632	1 763 913	51 769	103 594	953 423	4 351 002	3 712 890	8 046 078	359 766
Establishments with 1 to 4 employees	3	1 156 461 402 364	- - 364	2 164 3 069 5 412 11 473	42 452 65 444 119 288 266 968	1 724 2 270 3 975 8 082	3 705 3 375 6 172 13 872	26 042 38 622 68 271 143 201	93 706 140 577 290 653 612 806	70 772 110 299 210 865 477 588	164 277 251 936 499 861 1 088 521	6 446 8 765 15 443 43 193
Establishments with 50 to 99 employees	2	157	157	10 929	272 723	7 582	22 208	145 135	681 129	505 858	1 184 960	36 539
Establishments with 100 to 249 employees Establishments with 250 to 499	1	103	103	15 351	374 763	10 797	19 914	199 967	940 365	740 856	1 679 213	77 060
employees Establishments with 500 to 999	2	31	31	11 067	269 332	8 088	15 902	150 276	637 936	725 682	1 355 372	47 640
employees Establishments with 1,000 to 2,499	-	13	13	7 801	192 723	5 967	11 653	110 051	559 356	476 071	1 027 575	41 663
employees Establishments with 2,500 employees	-	4	4	5 366	160 220	3 284	6 793	71 858	394 474	394 899	794 363	83 017
or more Administrative records <sup>2</sup>	9	1 074	_	- 3 937	68 726	3 020	- 3 896	40 737	- 156 834	- 116 779	_ 274 458	11 459

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

<sup>1</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more. <sup>2</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

## Table 5. Industry Statistics by Industry and Primary Product Class Specialization: 1997

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

	•		•			-					
NAICS industry or		All	All employees		Pr	oduction work	ers	Value added			Total capital
product class code	Industry or primary product class	estab- lish- ments	Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)	by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	expendi- tures (\$1,000)
339999	All other miscellaneous mfg	2 691	72 632	1 763 913	51 769	103 594	953 423	4 351 002	3 712 890	8 046 078	359 766
3399991 3399993	Chemical fire-extinguishing equipment and parts Coin-operated amusement	23	3 096	111 728	1 748	3 559	46 632	326 728	387 000	702 965	17 921
3399995 3399997	Candles (including tapers) Umbrellas and parasols (including	42 107	5 584 8 536	172 666 189 882	3 090 6 007	6 250 10 947	59 140 97 306	393 507 493 392	511 112 472 405	900 566 968 326	83 837 52 671
3399999	Parts)	12	499	9 986	393	586	5 428	25 900	17 546	42 915	1 366
	flowers	66	3 344	64 659	2 606	4 679	41 080	182 144	134 147	309 232	3 907

## Table 6a. Products Statistics: 1997 and 1992

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

			19	997			19	92	
NAICS		Number of		Product	shipments	Number of		Product	shipments
code	Product	companies with shipments of \$100,000 or more	Quantity of production for all purposes	Quantity	Value (\$1,000)	companies with shipments of \$100,000 or more	Quantity of production for all purposes	Quantity	Value (\$1,000)
339999	All other miscellaneous fabrications	N	x	х	7 396 119	N	x	x	N
3399991	Chemical fire-extinguishing equipment and parts	N	x	х	543 864	N	x	x	462 142
33999911	Chemical fire-extinguishing equipment								
3399991101	and parts	N 7	x x	x x	533 471	N	x	x	N
3399991106	extinguishers	7	×	×	29 609 200 143	8	x x	x x	13 240 148 370
3399991111	Other hand portable fire extinguishers (including foam, pressurized water,		X	~	200 140		~	~	140 010
3399991116	and halogenated agents) Fixed fire-extinguishing systems, including inert gas, dry and wet chemical, and other chemical fire-	11	х	Х	67 684	8	x	х	91 558
3399991121	extinguishing equipment Parts and attachments for chemical fire-extinguishing equipment	10 8	x x	x x	137 733 98 302	12 7	x x	x x	85 608 21 913
3399991Y	Chemical fire-extinguishing equipment								
3399991YWV	and parts, nsk. Chemical fire-extinguishing equipment and parts, nsk.	N N	x x	x	10 393 10 393	N N	x x	x x	N 101 453
3399993	Coin-operated amusement machines	N	x	X	866 254	N	x	x	578 217
33999931 3399993101	Coin-operated amusement machines Coin-operated arcade and amusement	N	Х	х	863 216	N	x	х	Ν
3399993106	Controperated and and and and and and and and and an	26	х	х	395 360	31	x	х	339 573
	games	15	х	х	467 856	21	x	х	235 952
3399993Y 3399993YWV	Coin-operated amusement machines, nsk Coin-operated amusement machines, nsk	N	x x	x x	3 038 3 038	N N	x x	x x	N 2 692
3399995	Candles (including tapers)	N	X	X	950 679	N	x	x	366 182
33999951 3399995100	Candles (including tapers)	N 112	X X	X X	950 679 950 679	N 63	x	X	N 366 182
3399997	Umbrellas and parasols (including parts)	N	x	x	70 313	N	x	x	56 352
33999971 3399997100	Umbrellas and parasols (including parts) Umbrellas and parasols (including parts)	N 20	x x	x x	70 313 70 313	N 20	x x	x x	N 56 352
3399999	Feathers, plumes, and artificial flowers	N	х	х	242 531	N	x	х	254 456
33999991 3399999101	Feathers, plumes, and artificial flowers Artificial trees, all types (metal, plastics,	N	Х	х	221 476	N	x	х	Ν
3399999106 3399999111	etc), including Christmas Artificial flowers, fruits, and wreaths Feathers and plumes	18 24 5	X X X	X X X	120 173 87 252 14 051	11 N 9	X X X	X X X	101 958 N 40 712
3399999Y	Feathers, plumes, and artificial flowers, nsk	N	х	х	21 055	N	x	x	N
3399999YWV	Feathers, plumes, and artificial flowers, nsk	N	х	х	21 055	N	x	х	55 367
339999C	Mirror and picture frames	N	х	х	1 075 961	N	x	х	Ν
339999C1 339999C101	Wood frames for mirrors and pictures	N 135	X X	X X	472 435 472 435	N 122	X X	X X	N 287 489
339999C2 339999C206	Wood-framed pictures	N 66	X X	X X	260 573 260 573	N 60	X X	X X	N 171 926
339999C3	Metal frames for mirrors and pictures, and framed pictures other than wood (metal, plastics, fiber)	N	х	х	209 695	N	x	x	N
339999C311 339999C316	Metal frames for mirrors and pictures Framed pictures other than wood (metal, plastics, fiber)	29 24	x x	x x	73 384 136 311	29 28	x x	x x	105 597 59 084
339999CY 339999CYWV	Mirror and picture frames, nsk Mirror and picture frames, nsk	N N	X X	X X	133 258 133 258	N N	X X	X X	N N
339999H	Miscellaneous fabricated products, nec	N	Х	Х	2 160 568	N	x	х	Ν
339999H1 339999H101	Miscellaneous fabricated products, nec Hair clippers, for human use, hand and		Х	х	2 107 469	N	x	х	Ν
339999H106	electric Barber and beauty shop furniture and equipment, except barber and beauty		X	X	D	5	X	X	117 047
339999H111	chairs. Christmas tree ornaments and decorations (except glass and electrical)	18 31	x	x	D 83 937	N 37	x	x x	N 131 734
339999H121	Potpourri (dried and chemically preserved flowers, foilage, fruits, and vines)	34	x	x	121 735	38	x	x	101 288
339999H151	Miscellaneous fabricated products, made primarily of other material, including products made from a combination of materials	398	х	x	1 659 565	N	x	x	N

See footnotes at end of table.

## Table 6a. Products Statistics: 1997 and 1992-Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

			19	997		1992			
NAICS				Product shipments		Number of		Product shipments	
product code	Product	companies with shipments of \$100,000 or more	Quantity of production for all purposes	Quantity	Value (\$1,000)	companies with shipments of \$100,000 or more	Quantity of production for all purposes	Quantity	Value (\$1,000)
339999	All other miscellaneous fabrications—Con.								
339999H	Miscellaneous fabricated products, nec- Con.								
339999HY	Miscellaneous fabricated products, nec, nsk	N	х	х	53 099	N	х	x	N
339999HYWV	Miscellaneous fabricated products, nec, nsk	N	х	х	53 099	N	х	х	Ν
339999W	Miscellaneous products, nsk	N	х	Х	1 485 949	N	х	Х	N
339999WY 339999WYWW	All other miscellaneous manufacturing, nsk, total All other miscellaneous manufacturing,	N	х	х	1 485 949	N	х	х	Ν
339999WYWY	nsk, for nonadministrative-record establishments All other miscellaneous manufacturing, notk for administrative record uring,	N	х	х	1 243 671	N	х	х	Ν
	nsk, for administrative-record establishments	N	х	х	242 278	N	х	х	N

# Additional information is available for this item; see Appendix F. @ Additional data are available for these codes at the aggregate U.S. level in the Current Industrial Report (CIR) series; see Appendix F for the CIR survey number and title. \$ This product is primary to more than one industry; see Appendix F for a listing of the related product codes.

Note: For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: <sup>p</sup> 10 to 19 percent estimated; <sup>q</sup> 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

## Table 6b. Product Class Shipments for Selected States: 1997 and 1992

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1997. For meaning of abbreviations and symbols, see introductory text. For explanations of terms, see appendixes]

NAICS product class	Product class and geographic area	Value of produ (\$1,0	ct shipments 00)
code		1997	1992
3399991	CHEMICAL FIRE-EXTINGUISHING EQUIPMENT AND PARTS		
	United States	543 864	462 142
	Illinois	24 315	N
3399993	COIN-OPERATED AMUSEMENT MACHINES		
	United States	866 254	578 217
	Arizona California	13 636 23 215	N 65 200
	Illinois	246 567	192 175
3399995	CANDLES (INCLUDING TAPERS)		
	United States	950 679	366 182
	Arkansas	16 459 75 762	N 41 141
	Michigan	2 990	Ň
	Minnesota Missouri	5 454 31 214	N 8 533
	New Jersey	24 863	13 711
	New York Pennsylvania	58 161 5 289	29 811 5 757
	Texas	92 251 3 909	21 890 N
3399997	UMBRELLAS AND PARASOLS (INCLUDING PARTS)		
	United States	70 313	56 352
	California	9 324	16 269
	New Jersey	16 543	N
3399999	FEATHERS, PLUMES, AND ARTIFICIAL FLOWERS		
	United States	242 531	254 456
	California	34 365	22 306
	Florida	7 021 27 475	N 54 359
	North Carolina Ohio	11 730 14 534	N
	Texas	25 219 2 165	N 3 653
		2 100 1	0.000

See footnotes at end of table.

#### MANUFACTURING-INDUSTRY SERIES

## Table 6b. Product Class Shipments for Selected States: 1997 and 1992-Con.

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1997. For meaning of abbreviations and symbols, see introductory text. For explanations of terms, see appendixes]

NAICS product class	Product class and geographic area	Value of proc (\$1	duct shipments ,000)
code		1997	1992
339999C	MIRROR AND PICTURE FRAMES		
	United States	1 075 961	N
	Alabama Arkansas California Colorado Connecticut	15 057 104 110 252 854 4 587 4 161	N N N N
	Florida Georgia Illinois Kansas Maryland	10 358 4 228 70 298 5 110 6 604	N N N N
	Massachusetts . Michigan . Missouri . New Hampshire	33 282 10 824 12 179 2 969 5 416	N N N N
	New York North Carolina Ohio . Oregon Pennsylvania	87 532 85 199 6 927 3 781 14 750	N N N N
	Tennessee Texas. Virginia Wisconsin.	24 409 110 190 15 720 4 396	N N N N
339999H	MISCELLANEOUS FABRICATED PRODUCTS, NEC		
	United States	2 160 568	N
	Arizona . Arkansas . California . Colorado . Connecticut .	9 880 53 232 358 743 16 554 14 286	N N N N
	Florida Idaho . Illinois . Indiana	71 544 11 643 176 846 78 355 3 727	N N N N N
	Kansas Kentucky Maine Maryland Massachusetts	9 031 9 125 2 157 15 132 110 381	N N N N N
	Michigan . Minnesota . Missouri . Nevada . New Hampshire .	52 115 23 800 14 196 3 480 4 240	N N N N N
	New Jersey New York North Carolina Ohio Oklahoma	41 045 170 269 138 952 42 234 14 919	N N N N N
	Oregon Pennsylvania Rhode Island South Carolina Texas	13 803 176 354 32 252 4 488 77 919	N N N N N
	Virginia Washington Wisconsin	62 026 15 804 97 070	N N N

# Additional information is available for this item; see Appendix F. @ Additional data are available for these codes at the aggregate U.S. level in the Current Industrial Report (CIR) series; see Appendix F for the CIR survey number and title. \$ This product is primary to more than one industry; see Appendix F for a listing of the related product codes.

## Table 7. Materials Consumed by Kind: 1997 and 1992

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS		19	97	1992		
material code	Material consumed	Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	
339999	ALL OTHER MISCELLANEOUS MFG					
11331015	Hardwood logs and boltsmil bd ft Intl 1/4 in.			×		
32100023 32100029 32100027 32100033	scale Hardwood rough lumber	D 30.4 8.6 S 35.1	D 21 505 3 299 26 638 20 973	X X X X X	N N N N N	
32100007 32191203 32121101 32121201	Chips, slabs, edgings, shavings, sawdust, and other wood waste Hardwood cut stock and dimension, excluding furniture frames	X X D	D 7 036 D	X X X	N N N N	
32121901	Reconstituted wood products, including particleboard, oriented strandboard, medium density fiberboard, and hardboard	D X	D 9 423	x x	N	
32551003 32721103 33200005 32221001 33200081	Paints, varnishes, lacquers, stains, shellacs, japans, enamels, and allied products	631.9 X X X X	6 870 18 453 3 271 281 989 247 011	× × × × ×	N N N N N	
33100035 33210001 33120001	Castings (rough and semifinished) Forgings Steel shapes and forms (except castings, forgings, and fabricated metal	X X	18 791 8 760	X X	N N	
33142111	products)	х	115 250	х	N	
33100039	and fabricated metal products)	Х	13 842	х	N	
33100039	forgings, and fabricated metal products)	Х	28 479	х	N	
33100083	Other nonferrous shapes and forms (except castings, forgings, and fabricated metal products) Plastics products consumed in the form of sheets, rods, tubes, film, and	х	30 520	x	N	
32610013	other shapes	х	147 649	x	N	
32521105 32100019 00970099 00971000	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc. Rough and dressed lumber All other materials and components, parts, containers, and supplies Materials, ingredients, containers, and supplies, n.s.k.	X X X X	111 775 29 036 1 012 218 1 019 119	X X X X	N N N N	

# Additional information is available for this item; see Appendix F.

Note: For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: <sup>p</sup> 10 to 19 percent estimated; <sup>q</sup> 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

## Appendix A. Explanation of Terms

## **BEGINNING- AND END-OF-YEAR INVENTORIES**

Respondents were asked to report their beginning-ofyear 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.

## **Specific Materials Consumed**

In addition to the total cost of materials, which every establishment was required to report, information also was collected for most manufacturing industries on the consumption of major materials used in manufacturing. The inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. If less than \$25,000 of a listed material was consumed by an establishment, the cost data could be reported in the "Cost of all other materials...," Census material code 00970099. Also, the cost of materials for small establishments for which administrative records or short forms were used was imputed into the "Materials not specified by kind," Census materials code 00971000.

# Duplication in Cost of Materials and Value of Shipment

The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries includes large amounts of duplication since the products of some industries are used as materials by others. This duplication results, in part, from the addition of related industries representing successive

## 1997 ECONOMIC CENSUS

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.

### **COST OF PURCHASED SERVICES**

Annual Survey of Manufactures (ASM) establishments were requested to provide information on the cost of purchased services for the repair of buildings and other structures, the repair of machinery, communication services, legal services, accounting and bookkeeping services, advertising, software and other data processing services, and refuse removal. Each of these items reflects the costs paid directly by the establishment and excludes salaries paid to employees of the establishment for these services.

Included in the cost of purchased services for the repair of buildings and machinery are payments made for all maintenance and repair work on buildings and equipment. Payments made to other establishments of the same company and for repair and maintenance of any leased property also are included. Extensive repairs or reconstruction that was capitalized is considered capital expenditures and is, therefore, excluded from this item. Repair and maintenance costs provided by an owner as part of a rental contract or incurred directly by an establishment in using its own work force also are excluded.

Included in the cost of purchased advertising services are payments for printing, media coverage, and other advertising services and materials.

Included in the cost of purchased software and other data processing services are all purchases by the establishment from other companies. Excluded are services provided by other establishments of the same company (such as by a separate data processing unit). Included in the cost of purchased refuse removal services are all costs of refuse removal services paid by the establishment, including costs for hazardous waste removal or treatment. Excluded are all costs included in rental payments or as capital expenditures.

## **Response Coverage Ratio**

A response coverage ratio is a measure of the extent to which respondents report for an item. The estimate is made by calculating the ratio value of the weighted total employment data for all the ASM establishments that report the item to the weighted total employment data for all ASM establishments classified in an industry (reporters and non-reporters).

## **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 linesupervisor 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 companyoperated 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).

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

NAICS United States industries are identified by a sixdigit code, in contrast to the four-digit SIC code. The longer code accommodates the large number of sectors and allows more flexibility in designing subsectors. Each

#### 1997 ECONOMIC CENSUS

product or service is assigned a ten-digit code. The product coding structure represents an extension by the Census Bureau of the six-digit industry classifications of the manufacturing and mining sectors. The classification system operates so that the industrial coverage is progressively narrower with the successive addition of digits. This is illustrated as follows:

NAICS level	NAICS code	Description
	NAICO COUE	Description
Industry	33461	Manufacturing and reproduction of magnetic and optical media
U.S. industry	334612	Reproduction of software
Product class	3346120	Prerecorded compact disc (except software), tape, and record repro- ducing
BLS link code	3346120X	
Product code	3346120XXX	

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

In the new system, there are about 1,500 product classes (seven-digit codes), about 6,000 census products (ten-digit codes), 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.

The list of products for which separate information was collected was prepared after consultation with industry and government representatives. Comparability with previous figures was given considerable weight in the selection of product categories so that comparable 1992 information is presented for most products.

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

Shipments include both commercial shipments and transfers of products to other plants of the same company. For industries in which a considerable portion of the total shipments is transferred to other plants of the same company, separate information on interplant transfers also was collected. Moreover, for products that are used to a large degree within the same establishment as materials or components in the fabrication of other products, total production and often consumption of the item within the plant (quantity produced and consumed) was collected. Typically, the information on production also was collected for products for which there are significant differences between total production and shipments in a given year because of wide fluctuations in finished goods inventories. Other measures of output of products with long production cycles were used as appropriate and feasible.

## PRIMARY PRODUCT CLASS CODE

This file presents selected statistics for establishments according to their degree of specialization in products primary to their industry. This field contains either the sixdigit North American Industrial Classification System (NAICS) industry code corresponding to all establishments in the industry, or the seven-digit NAICS product class code for all establishments within the industry that are specialized in a particular product class. Product class specialization is determined by evaluating the ratio of the largest primary product class shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment.

## **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 companyowned 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 beginningand 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.

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

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

Primary product shipments is used in the calculations of industry specialization ratio and industry coverage ratio. The term "Value of primary products shipments made in this industry" is used in this publication and refers to the same data.

# 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.

## **Specialization and Coverage Ratios**

These items are not collected on the report forms but are derived from the data shown in Table 3. An establishment is classified in a particular industry if its shipments of primary products of that industry exceed in value its shipments of the products of any other single industry.

An establishment's shipments include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), and receipts for miscellaneous activities (merchandising, contract work, resales, etc.). Specialization and coverage ratios have been developed to measure the relationship of primary product shipments to the data on shipments for the industry shown in Tables 1a through 5 and data on product shipments shown in Tables 6a and 6b.

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

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

## Appendix B. NAICS Codes, Titles, and Descriptions

### 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" (nsk) categories.

The industry classification codes included in the administrative-record files were assigned on the basis of brief descriptions of the general activity of the establishment. As a result, an indeterminate number of establishments were erroneously coded to a fourdigit 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 materialsconsumed 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 supplybased 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 SICbased 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.

#### MANUFACTURING

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, completecoverage 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 broaderbased annual survey of manufactures and the economic

## MANUFACTURING

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

Not applicable for this report.

# Appendix E. Metropolitan Areas

Not applicable for this report.

## Appendix F. Footnotes for Products Statistics and Materials Consumed by Kind

Not applicable for this report.

## Appendix G. Comparability of Product Classes and Product Codes: 1997 to 1992

1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published
3391110 3391110110 3391110230 3391110YWW 3391110YWY	3821010 3821020 3821000	38210 3821010 3821020 3821000 3821000	3391141 pt 3391141101 3391141106 3391141106 3391141111	3843102 3843103 3843105	38431 3843101 3843102 3843103 3843105 3200200 at	3399115 pt 3399115101 3399115106 pt 3399115106 pt 3399115111 pt	39114 3911411 3911413 pt 3911413 pt 3911415 pt	3911411 3911421 3911441 pt 3911431
3391121 pt	·		3391141121 pt 3391141121 pt 3391141226	3843104 3843106	3699200 pt 3843104 3843106	3399115111 pt 3399115116 3399115118	3911415 pt 3911451 3479022	3911451 3479021 pt
3391121 pt 3391121101 3391121106 3391121211 3391121216	3841112 3841131 3841121 3841123	3841131 3841121 3841123	3391141231 3391141236 3391141241 3391141246 33911412WV pt	3843108 3843109 3843111 3699200 pt	3843107 3843108 3843109 3843111 3699200 pt	3399115121 pt 3399115121 pt 3399115YWV pt 3399115YWV pt	3911481 pt 3911481 pt 3479000 pt 3911400	3911471 3479000 pt 3911400
3391121321 3391121326 3391121431	3841149 3841185	3841142 3841149 3841185	3391141YWV pt	3843100 38432	3843100 38432	339911W pt	34790 pt 39110	
3391121536 3391121641 3391121646	3841186 3841172 3841184	3841172 3841184	3391143101         3391143106         3391143110         3391143111         3391143116	3843201 3843202 3843203 3843209	3843201 3843202 3843203 3843209	339911W pt 339911WYWW pt 339911WYWW pt 339911WYWY pt 339911WYWY pt	3479000 pt 3911000 3479002 pt 3911002	3479000 pt 3911000 3479002 pt
3391121656 3391121661	3841187 3829510 3841196 3841199	3829500 pt 3841196	3391143121 3391143YWV 339114W pt	3843200	3843219 3843200 36990 pt	3399121 3399121101 3399121106	39141 pt 3914111 3914131	3914111 3914131
3391121YWV pt	3829500 3841100	3829500 pt	339114W pt 339114WYWW pt	38430	38430 3699000 pt	3399121111 3399121116 3399121121	3914141 3914143 3914153	3914143 3914153
3391123111	3841291 3841293	3841293	339114WYWW pt 339114WYWY pt 339114WYWY pt	3843000 3699002 pt	3843000 3699002 pt 3843002	3399121126 3399121YWV 3399123 pt	3914175 3914100 34790 pt	3914100
	3841296 3841200 38290 pt		3391151 3391151101 3391151106	3851115 3851117	38511 3851115 3851117	3399123 pt 3399123101 3399123106	39142 pt 3914211 3914235	3914211
339112WYWW pt	38410 3829000 pt 3841000 3829002 pt	3841000	3391151111 3391151116 3391151YWV	3851119 3851100	3851118 3851119 3851100 38514	3399123111 3399123116 3399123121 3399123126	3914241 3914243 3914275 3479024	3914241 3914243 3914270 pt 3479021 pt
339112WYWY pt 3391131	3841002 38421 pt	3841002 38421 pt	3391153 3391153101 3391153106 3391153YWV	3851431 3851445	3851431 3851445	3399123YWV pt 3399123YWV pt	3479000 pt 3914200 pt	3914200 pt
3391131104 3391131207	3842101 3842102 3842104	3842102 3842104	3391155	38515	38515	339912W pt 339912W pt 339912WYWW pt	34790 pt 39140 pt	39140 pt
3391131211         3391131214         3391131217         3391131221         3391131221         3391131224	3842107 3842108	3842106 3842107 3842108	3391155101 3391155206 3391155YWV 3391157	3851525         3851527         3851500         38516	3851525 3851527 3851500 38516	339912WYWW pt 339912WYWW pt 339912WYWY pt 339912WYWY pt	3479000 pt 3914000 pt 3479002 pt 3914002 pt	3914000 pt 3479002 pt
3391131227 3391131231	3842110 3842112	3842110 3842112	3391157101 3391157206 3391157YWV	3851612 3851613 3851600	3851612 3851613 3851600	3399131 3399131100 pt 3399131100 pt 3399131100 pt	39152 3915200 pt 3915200 pt 3915200 pt	3915200 3915211
3391131234         3391131337         3391131341         3391131344         3391131344         3391131344         3391131354         3391131351         3391131354	3842123         3842124         3842126         3842127         3842127		339115B 339115B100 339115B106 pt 339115B106 pt 339115B111 339115B116 339115B121	3851705 pt 3851705 pt 3851706	38517 3851702 3851703 3851704 3851706 3851709 3851719	3399133 3399133101 3399133206 3399133211 339913316 33991331WV	39153 3915311 3915312 3915321 3915321 3915331 3915300	3915311 3915312 3915321 3915331
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3391131574 3391131577 3391131581	3842185 3842187	3842183 3842185 3842187	339115W 339115WYWW 339115WYWY	3851002	3851002	339913W 339913WYWW 339913WYWY	39150 3915000 3915002	3915000
3391131584 3391131587 3391131591 3391131594	3842191 3842197	3842191 3842197	3391160 3391160100 pt 3391160100 pt 3391160YWW	8072001 8072000 pt	8072000 pt 8072000 pt	3399140 pt 3399140 pt	34790 pt	
3391131YWV	3842100 pt	3842100 pt	3391160YWY	8072002	8072000 pt	3399140 pt	34998 pt	34998 pt
3391135 3391135101 3391135106 3391135116 3391135111 3391135116 3391135121 3391135126 3391135126	3842311 3842321 3842322 3842351 3842351 3842361 3842361 3842373	3842321 3842322 3842351 3842361 3842373	3399111 339911101 3399111206 3399111311 3399111421 pt 3399111421 pt 3399111516 3399111526	3911111 3911112 3911114 3911121 pt 3911121 pt 3911121 pt 3911115 3911115	39111 3911111 3911112 3911114 3911131 3911141 3911145 3911151	3399140 pt 3399140111 pt 3399140111 pt 3399140118 3399140201 3399140206 pt 3399140206 pt	39610 3961032 pt 3961032 pt 3499895 3961011 3961022 pt 3961022 pt	3961041 pt 3499899 pt 3961011 3961021 3961041 pt
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339113W pt	·		3399113 3399113101 3399113106 pt	3911311 3911315 pt	39113 3911311 3911321	3399140226 pt	3961098 pt 3961098 pt	3961096 3961099
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3391141 pt	36992 pt	36992 pt	3399115 pt	34790 pt	34790 pt	3399140YWY pt 3399140YWY pt	3499002 pt 3961002	3499002 pt

#### MANUFACTURING-INDUSTRY SERIES

1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published
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3399203 3399203101 3399203206 3399203311 3399203416 3399203421 3399203YWV 3399205	3949241 3949245 3949247 3949298 3949200 39493	39492 3949231 3949241 3949245 3949245 3949247 3949298 3949200 39493	3399325 3399325101 3399325106 3399325116 3399325116 3399325121 3399325226 3399325226 3399325236 3399325236 339932523WV	39445	39445 3944511 3944513 3944516 3944519 3944521 3944523 3944523 3944525 3944520 3944520	3399503101 pt 3399503101 pt 3399503106 pt 3399503106 pt 3399503106 pt 3399503106 pt 3399503106 pt 3399503106 pt 3399503111 pt	3993201 pt 3993201 pt 3993203 pt 3993203 pt 3993203 pt 3993203 pt 3993203 pt 3993203 pt 3993205 pt	3993212 3993262 pt 3993278 pt 3993225 pt 3993225 pt 3993276 pt 3993276 pt 3993276 pt 3993288 pt 3993282 3993262 pt
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3399207141 3399207151 3399207199 pt 3399207199 pt 3399207199 pt 3399207199 pt 3399207YWV 3399209 3399209101 3399209106	3949441 3949499 pt 3949499 pt 3949499 pt 3949499 pt 3949499 pt 3949400 39495 39495 3949511 3949515	3949406 pt 3949406 pt 3949404 3949405 3949400 3949400 39495 3949511 3949515	3399329	3944002 pt	39447 3944700 3944712 3944714 3944716 39440 pt 3944000 pt 3944002 pt	3399503126 pt 3399503126 pt 3399503YWV 3399505 3399505 3399505101 3399505106 3399505106 3399505YWV	3993211 pt           3993211 pt           3993200           39933           3993311           3993351           3993300	3993276 pt 3993288 pt 3993200 39933 3993300 pt 3993300 pt
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3399209121 3399209126 339920912A 339920912F 339920912K 339920912K 339920912U pt 339920912U pt 339920912U pt 3399209131 3399209136	3949530 3949536 3949596 3949594 3949595 3949597 3949599 pt 3949599 pt 3949599 pt 3949559 pt 39495537 3949538	3949530 3949536 3949596 3949594 3949597 3949597 3949589 3949589 3949589 3949537 3949537	3399415 3399415106 3399415106 3399415116 3399415111 3399415YWV 339941W 339941W 339941WYWY	39513         3951305         3951310         3951325         3951325         39510         39510         395100         395100         395100         395102	39513 3951305 3951310 3951313 3951325 3951325 39510 3951000 3951000	3399913 3399913211 3399913221 3399913331 3399913341 3399913351 pt 3399913351 pt 3399913351 pt 3399913351 pt  3399913351 pt 	30535 3053515 3053524 3053517 3053519 pt 3053529 pt 3053529 pt 3053529 pt 3053529 pt	30535 3053515 3053531 pt 3053519 3053519 3053511 3053513 3053521 3053521 3053531 pt
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3399209181 3399209186 3399209191 3399209193 3399209196 3399209YWV 339920W	3949576 3949556 3949571 3949565 3949570 3949500 39490	3949553 pt 3949556 3949571 pt 3949570 3949570 3949570 3949500 39490	3399423 3399423101 3399423206 33994232WV 3399425 3399425000 pt 3399425000 pt 3399425000 pt 3399425000 pt	3952414         3952421         3952400 pt         35799 pt         3579900 pt         3579930	39524 pt 3952413 pt 3952419 pt 3952400 pt 35799 pt 3579900 pt 3579900 pt 25310 pt	3399917 3399917111 3399917121 33999177WV 3399918 3399918 3399918111 3399918121  3399918131	30537           3053729           3053748           305370           30538           305381           3053813           3053813	30537 3053729 3053748 3053700 30538 3053810 3053813 3053815
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3399310326 3399310YWW 3399310YWY 3399321 339932106 3399321106 3399321116	3942054 3942000 3942002 39443 pt 3944316 3944326 3944326 3944381 3944387	3942054 3942000 3942002 39443 pt 3944316 3944346 pt 3944381 3944397	3399430 3399430101 3399430106 3399430211 3399430211 3399430321 3399430321 3399430326 33994307WW 33994307WW	3953015 3953033 3953035 3953037 3953098	39530 3953013 3953015 3953033 3953035 3953035 3953037 3953008 3953000 3953002	3399919151 pt 3399919YWV 339991W 339991W 339991WYWW 3399921 3399921	3053989 pt. 3053900 305300 3053000 3053002 39311 3931141 pt	3053981 3053900 30530 3053000 3053002 39311 3931111
3399321YWV 3399323 3399323111 3399323116 3399323126 3399323126 3399323126 3399323201 3399323206	3944300 pt 39444.5 3944415 3944421 3944423 3944424 3944428 3944413	3944300 pt 39444 3944415 3944421 3944423 3944423 3944428 3944428 3944411 3944411	3399441 3399441106 3399441201 3399441211 3399441211 33994412WV 3399443 3399443	39551         3955115         3955110         3955120         3955100         39552	39551 3955115 39555115 3955120 3955120 3955200	3399921101 pt 3399921106 3399921 YWV 3399923 3399923101 3399923106 3399923106 3399923 YWV	3931141 pt         3931151         3931100         39312         393121         3931251         3931200         393120	3931151 3931100 39312 3931211 3931251 3931200
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## G-2 APPENDIX G

### MANUFACTURING-INDUSTRY SERIES

1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published
3399927		39314	3399941 pt	39911	39911	339995W	39950	39950
3399927116 pt 3399927116 pt		3931450 3931452	3399941101	3991113 3991198	3991113 3991198	339995WYWW	3995000 3995002	3995000 3995002
3399927201	3931413	3931413	3399941311	2392471	2392471	3399991	39991	39991
3399927206	3931415 3931427	3931415 3931427	3399941316	2392473	2392473 2392475	3399991101	3999113	
3399927221		3931427	3399941YWV pt		2392475 2392400 pt	3399991106	3999117	3999117
3399927226		3931498	3399941YWV pt	3991100	3991100	3399991111	3999140 3999170	
3399927331 3399927YWV	3931431	3931431 3931400	3399943	39912	39912	3399991121	3999171	3999171
339992W		39310	3399943101 pt	3991251 pt	3991211	3399991YWV	3999100	3999100
339992WYWW		3931000	3399943101 pt		3991233	3399993	39992	39992
339992WYWY	3931002	3931002	3399943206 3399943211 pt	3991243 3991253 pt	3991243 3991281	3399993101	3999222 3999299	3999222 3999299
3399931 pt	31310 pt	31310 pt	3399943211 pt	3991253 pt	3991283	3399993YWV	3999200	3999200
3399931 pt	39651	39651	3399943211 pt		3991285 3991200	3399995	39994	39994
3399931101 pt	3965131 pt	3965101	55555451000	3991200	3991200	3399995100	3999400	
3399931101 pt 3399931106 pt	3965131 pt 3965133 pt	3965109 3965111	3399945	39913	39913	3399997	39997	39997
3399931106 pt		3965119	3399945101 3399945106 pt	3991321 3991328 pt	3991321 3991327	3399997100	3999700	3999700
	3131032	3131061 pt	3399945106 pt	3991328 pt	3991329	3399999	39998	39998
3399931111 pt 3399931111 pt		3965121 3965129	3399945211	3991336	3991336	3399999101	3999813	3999813
3399931YWV pt	3131000 pt	3131000 pt	3399945216	3991338 3991343	3991338 3991343	3399999106 pt 3399999106 pt	3999816 pt 3999816 pt	3999815 3999817
3399931YWV pt	3965100	3965100	3399945226	3991398	3991398	3399999111	3999821	3999821
3399933	39654	39654	3399945YWV	3991300	3991300	3399999YWV	3999800	3999800
3399933101 pt 3399933101 pt	3965441 pt 3965441 pt	3965422 3965423	339994W pt	23920 pt	23920 pt	339999C	24991 pt	24991 pt
3399933106 pt	3965443 pt	3965431				339999C101 339999C206	2499111 2499161	
3399933106 pt		3965433 3965439	339994W pt 339994WYWW pt	39910 2392000 pt	39910 2202000 pt	339999C311	2499115	2499115
3399933YWV	3965443 pt 3965400	3965400	339994WYWW pt		2392000 pt 3991000	339999C316 339999CYWV	2499171 2499100 pt	
		39656	339994WYWY pt	2392002 pt	2392002 pt		•	·
3399935		3965620	339994WYWY pt	3991002	3991002	339999H	39999 pt 3999907	39999 pt 3999907
3399935106		3965625	3399951	39951	39951	339999H106	3999909	3999911 pt
3399935111 3399935116		3965633 3965651	3399951101	3995113	3995113	339999H111 339999H121	3999951 3999981	3999951 3999981
3399935121	3965671	3965671	3399951206 3399951YWV	3995115 3995100	3995115 3995100	339999H151 pt	3999997 pt	
3399935126 pt 3399935126 pt		3965681 3965689				339999H151 pt	3999997 pt	3999924
3399935YWV		3965600	3399953	39952 3995211	39952 3995211	339999H151 pt 339999H151 pt	3999997 pt 3999997 pt	3999942 pt 3999944 pt
330003\\/ nt	31310 pt	31310 pt	3399953101	3995252	3995252	339999H151 pt	3999997 pt	3999999 pt
•			3399953YWV	3995200	3995200	339999HYWV	3999900 pt	3999900 pt
339993W pt 339993WYWW pt	39650 3131000 pt	39650 3131000 pt	3399955	39953	39953	339999W pt	24990 pt	24990 pt
339993WYWW pt		3965000	3399955100 pt	3995300 pt	3995300	339999W pt	39990 pt	39990 pt
339993WYWY pt	3131002 pt	3131002 pt	3399955100 pt 3399955100 pt	3995300 pt 3995300 pt	3995311 3995331	339999WYWW pt 339999WYWW pt	2499000 pt 3999000 pt	2499000 pt 3999000 pt
339993WYWY pt	3965002	3965002	3399955100 pt	3995300 pt	3995358	339999WYWY pt	2499002 pt	
3399941 pt	23924 pt	23924 pt		3995300 pt	3995393	339999WYWY pt	3999002 pt	

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