## Wood Window and Door Manufacturing

1997

ssued October 1999

EC97M-3219A

#### **1997 Economic Census**

Manufacturing
Industry Series



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#### ACKNOWLEDGMENTS

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

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

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

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

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

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The staff of the Administrative and Customer Services Division, **Walter C. Odom,** Chief, performed planning, design, composition, editorial review, and printing planning and procurement for publications, Internet products, and report forms. **Cynthia G. Brooks** provided publication coordination and editing.

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#### **1997 Economic Census**

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#### Introduction to the Economic Census

#### PURPOSES AND USES OF THE ECONOMIC CENSUS

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

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

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

#### ALL-NEW INDUSTRY CLASSIFICATIONS

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

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

52 Finance and Insurance 53

Real Estate and Rental and Leasing 54 Professional, Scientific, and Technical Services

55 Management of Companies and Enterprises 56 Administrative and Support and Waste

Management and Remediation Services

61 **Educational Services** 

Health Care and Social Assistance 62

Arts. Entertainment, and Recreation 71

72 Accommodation and Foodservices

Other Services (except Public Administration)

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

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

#### RELATIONSHIP TO SIC

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

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

#### **GEOGRAPHIC AREA CODING**

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

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

#### **BASIS OF REPORTING**

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

#### **DOLLAR VALUES**

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

All dollar values are shown in thousands of dollars.

#### **AVAILABILITY OF ADDITIONAL DATA**

#### **Reports in Print and Electronic Media**

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

#### **Special Tabulations**

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

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

Manufacturing and Construction Division Service Sector Statistics Division

301-457-4673 301-457-2668

#### HISTORICAL INFORMATION

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

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

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

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

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

#### SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the Guide to the 1997 Economic Census and Related Statistics at www.census.gov/econquide. 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:

- Α 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 rev-
- Ν Not available or not comparable.
- Revenue not collected at this level of detail for Q multiestablishment firms.
- S Withheld because estimates did not meet publication standards.

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

1997 ECONOMIC CENSUS INTRODUCTION 3 This page is intentionally blank.

### 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

U.S. Census Bureau, 1997 Economic Census

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

NAICS			All	All em	oloyees	Pr	oduction work	ers				Total capital
or SIC code	Industry	Com-	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>321911</b> 243110	Wood window & door mfg Millwork (pt)	1 315	<b>1 408</b> 1 408	<b>64 083</b> 64 083	<b>1 706 601</b> 1 706 601	<b>51 838</b> 51 838	<b>101 438</b> 101 438	1 228 808 1 228 808	<b>3 740 751</b> 3 740 751	<b>4 978 553</b> 4 978 553	8 730 522 8 730 522	<b>201 276</b> 201 276

<sup>&</sup>lt;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 em	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)
321911, WOOD WINDOW & DOOR MFG												
United States	1	1 408	475	64 083	1 706 601	51 838	101 438	1 228 808	3 740 751	4 978 553	8 730 522	201 276
Alabama Arizona Arkansas California Colorado	1 1 3 3 3	30 35 14 178 32	13 14 6 44 8	1 433 855 506 4 024 613	31 436 20 203 7 716 98 172 16 517	1 058 692 413 3 158 429	2 002 1 207 718 6 404 829	18 721 14 030 5 986 68 052 9 007	78 162 37 602 15 318 218 587 30 434	129 064 39 673 29 476 279 596 34 089	208 043 79 416 44 858 498 696 64 579	3 421 2 063 992 13 893 1 391
Connecticut Florida . Georgia . Idaho . Illinois .	3 1 4 - 2	17 77 42 17 55	3 25 14 6 15	240 1 479 1 406 745 2 200	8 176 31 897 37 290 18 032 56 044	145 1 139 1 107 565 1 570	312 2 112 2 265 1 061 2 976	3 877 21 895 26 014 13 146 38 226	19 325 65 097 76 806 39 740 111 418	20 744 112 013 100 369 48 479 149 481	40 221 178 423 176 054 89 573 266 804	834 3 829 3 714 390 4 340
Indiana lowa Kansas Kentucky Louisiana	- - 4 6	31 17 10 16 18	20 12 2 4 4	1 772 5 437 208 488 286	42 062 162 638 4 180 11 807 6 306	1 389 4 517 172 420 240	2 618 8 863 303 809 443	28 593 117 922 2 770 9 616 4 591	97 790 416 915 7 147 34 954 10 726	147 669 303 075 7 009 38 255 12 728	243 359 719 229 14 084 73 201 23 476	4 406 29 394 370 1 421 659
Maine Maryland Massachusetts Michigan Minnesota	4 8 2 1 -	17 7 35 41 36	3 4 4 13 14	422 376 399 891 6 923	7 185 9 872 11 680 24 887 282 800	336 305 279 699 5 647	518 615 551 1 399 11 164	5 127 7 196 6 877 16 932 206 662	12 288 17 762 20 772 55 276 579 724	15 314 23 540 30 569 95 615 785 753	27 677 41 400 51 422 150 675 1 372 671	889 1 071 861 2 551 21 352
Mississippi Missouri Nebraska New Hampshire New Jersey	2 2 6 5	11 23 7 11 33	6 4 3 6 7	467 400 349 499 600	10 080 9 232 7 830 12 069 16 196	348 288 270 394 443	642 532 545 714 824	6 151 5 554 5 401 8 762 10 587	21 025 16 626 22 012 22 305 41 383	30 420 25 949 42 103 31 332 29 638	51 644 42 125 64 135 53 183 71 085	784 1 252 926 1 110 1 671
New York	6 1 2 2	51 31 49 11 44	12 14 21 4 22	704 1 318 2 095 132 3 165	19 841 25 809 49 712 2 517 80 237	548 1 131 1 743 101 2 727	1 011 2 057 3 346 163 5 520	14 253 19 929 36 882 1 715 62 678	39 659 64 090 97 178 5 084 171 470	39 620 95 738 115 329 6 984 265 342	78 917 166 543 210 741 11 818 429 476	2 595 2 695 8 569 328 6 775
Pennsylvania	1 - 3 -	53 21 21 92 18	16 8 10 29 1	2 100 958 1 455 3 045 351	53 070 22 084 33 121 59 916 7 453	1 638 843 1 290 2 493 298	2 832 1 605 2 410 4 859 499	35 703 16 880 26 982 40 218 5 827	115 640 45 737 75 094 154 687 11 306	130 579 78 077 109 723 258 869 38 839	246 250 123 808 184 305 413 894 50 077	5 832 6 286 5 050 8 721 880
Vermont Virginia Washington Wisconsin	- 1 -	9 38 65 50	2 20 23 30	128 2 814 2 164 10 017	2 288 70 627 56 785 263 365	106 2 108 1 815 8 475	226 5 001 3 506 17 044	1 674 48 783 42 644 201 906	10 139 128 630 122 742 599 060	14 582 157 648 173 001 884 072	24 656 288 245 296 270 1 478 853	835 7 556 3 742 35 087

<sup>\*</sup> 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.

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

#### 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
321911, WOOD WINDOW & DOOR MFG		321911, WOOD WINDOW & DOOR MFG—Con.	
Companies <sup>1</sup> number	1 315	Value added\$1,000	3 740 751
All establishments	1 408 933 344 131	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.	994 941 219 075 253 232 522 634
All employees         number           Total compensation²         \$1,000           Annual payroll         \$1,000           Total fringe benefits         \$1,000	64 083 2 093 239 1 706 601 386 638	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.	1 007 082 217 877 243 212 545 993
Production workers, average for year	51 838 50 243 51 773	Gross book value of total assets at beginning of year	2 041 811 201 276 39 343
Production workers on August 12	52 950 52 388 101 438	Capital expenditures for machinery and equipment (new and used) \$1,000. Total retirements <sup>2</sup> \$1,000. Gross book value of total assets at end of year \$1,000.	161 933 50 458 2 192 629
Production-worker wages	1 228 808	Total depreciation during year <sup>2</sup> \$1,000.	145 510
Total cost of materials	4 978 553 4 498 512 387 500 15 352 56 572 20 617	Total rental payments <sup>2</sup> \$1,000.  Buildings and other structures rental payments <sup>2</sup> \$1,000.  Machinery and equipment rental payments <sup>2</sup> \$1,000.	68 041 32 306 35 735
Quantity of electricity purchased for heat and power	1 065 547 -	Response coverage ratio <sup>4</sup> percent.  Cost of purchased services for the repair of machinery and equipment <sup>3</sup> \$1,000.	9 221 80 44 167
Total value of shipments         \$1,000.           Primary products value of shipments         \$1,000.           Secondary products value of shipments         \$1,000.           Total miscellaneous receipts         \$1,000.           Value of resales         \$1,000.           Contract receipts         \$1,000.           Other miscellaneous receipts         \$1,000.	8 730 522 7 607 368 600 803 522 351 486 860 15 127 20 364	Response coverage ratio <sup>4</sup> percent.  Cost of purchased communications services <sup>3</sup> \$1,000.  Response coverage ratio <sup>4</sup> percent.  Cost of purchased legal services <sup>3</sup> \$1,000.  Response coverage ratio <sup>4</sup> percent.  Cost of purchased accounting and bookkeeping services <sup>3</sup> \$1,000.  Response coverage ratio <sup>4</sup> percent.	80 15 839 80 20 206 80 7 208 80
Primary products specialization ratio percent.  Value of primary products shipments made in all industries \$1,000.  Value of primary products shipments made in this industry \$1,000.  Value of primary products shipments made in other industries \$1,000.	92 8 034 561 7 607 368 427 193	Cost of purchased software and other data processing services <sup>3</sup> .\$1,000.  Response coverage ratio <sup>4</sup>	54 103 80 9 535 80
Coverage ratio percent	94	services <sup>3</sup> \$1,000. Response coverage ratio <sup>4</sup> percent.	9 183 80

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

<sup>&</sup>lt;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.

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

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

			All shments	All em	oloyees	Pr	oduction work	ers				
Employment size class	E <sup>1</sup>	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)
321911, WOOD WINDOW & DOOR MFG												
All establishments	1	1 408	475	64 083	1 706 601	51 838	101 438	1 228 808	3 740 751	4 978 553	8 730 522	201 276
Establishments with 1 to 4 employees	8	410	-	844	17 234	712	1 109	13 640	32 907	43 897	77 209	2 065
employees	5	272	-	1 884	42 046	1 497	2 577	31 457	82 081	101 170	184 365	4 086
employees	3	251	-	3 424	82 752	2 632	4 791	57 944	169 226	213 364	384 372	8 646
employees	2	235	235	7 248	183 346	5 618	10 501	121 410	367 648	515 703	887 823	20 355
employees	2	109	109	7 645	185 767	5 932	11 319	119 982	413 527	588 021	1 003 683	23 570
employees	1	87	87	13 364	308 712	10 738	21 415	216 251	728 746	1 093 700	1 821 085	44 282
employees	1	28	28	10 510	263 288	8 836	17 826	205 004	568 849	741 501	1 305 671	29 103
Establishments with 500 to 999 employees	-	10	10	6 544	166 241	5 307	10 134	120 954	393 035	651 538	1 046 840	28 184
Establishments with 1,000 to 2,499 employees	-	3	3	3 830	100 846	3 287	7 420	82 313	221 158	210 135	427 564	11 632
Establishments with 2,500 employees or more	-	3	3	8 790	356 369	7 279	14 346	259 853	763 574	819 524	1 591 910	29 353
Administrative records <sup>2</sup>	9	338	-	1 276	25 039	1 063	1 642	18 458	47 455	65 245	113 041	2 942

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

²Some 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		All			Production workers			Value added			Total capital
industry or 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)
321911	Wood window & door mfg	1 408	64 083	1 706 601	51 838	101 438	1 228 808	3 740 751	4 978 553	8 730 522	201 276
3219111 3219113	Wood window units	121	25 966	794 429	21 132	42 433	582 882	1 728 209	2 028 244	3 765 426	86 661
3219115	in window units	8	93	2 122	72	131	1 572	5 463	4 873	10 330	180
3219117	door units, excluding window frames shipped in window units	39	2 960	72 699	2 594	5 096	59 284	152 467	321 650	467 948	8 772
3219119	doors, interior and exterior, including doors with glazed sections Other wood doors, including garage,	250	14 161	350 077	10 952	22 283	235 250	865 233	1 345 960	2 214 366	49 855
	patio, bifold, cabinet, screen, storm, and louver	157	8 286	192 182	6 919	13 098	138 921	392 766	404 757	798 793	21 253

#### 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]

229911				19	997		1992			
### STORY   Product   Product   Support   Support   Country   Story   Support	NAICS				Product	shipments			Product	shipments
229111   Wood window units	product	Product	with shipments of \$100,000	production for all	Quantity		with shipments of \$100,000	production for all	Quantity	Value (\$1,000)
2291113	321911	Wood windows and doors	N	Х	х	8 034 561	N	х	Х	N
2281911111   Double hing wood window units.			1							2 393 830
232911121   Other dooleh tung wood window units   thousands   53		Double hung wood window units,								N
229911291 Casement wood window units. thousands. 56 X #2,244.9 768.67 88 X \$ 5217.5 S 2299131 All Collect casement wood window units. Thousands. 58 X #224.6 1142.251 64 X \$ 5219.35 S 2299131 All collect wood window units. Including housands. 58 X #244.6 1142.251 64 X X X 2299131 All collect wood window units. Including housands. 58 X #244.6 1142.251 64 X X X X 2299131 All collect wood window units. Including housands. 59 X #24.5 \$ 15.564 N X X N Part 199132 All collect wood window units. Thousands. 20 X \$ 15.564 N X N N All collect wood window units. Thousands. 54 X * 13.52.267 N X X X N Part 199132 All collect wood window units. Thousands. 54 X * 13.52.267 N X X X X X X X X X X X X X X X X X X	3219111121	Cladded	55 63	X				XX		679 716 217 350
2219111241		Casement wood window units	N	Χ	Х	901 018	N	х	X	N
All other wood window units, including horizontal siding, some and angle window units, including horizontal siding, some and angle window units, including such shipped in window units.		cladded thousands		X				X		760 650 188 758
No.		All other wood window units, including		Α,	024.0	142 001	04	^	· ·	100 700
2219111361   Cladeded   Cladede		hung	N	Х	х	352 367	N	x	Х	N
April   Apri		cladded thousands	21	Х	146.9	34 534	N	x	N	N
23   29   11   23   29   29   20   20   20   20   20   20		unitsthousands	20	Х	s	15 564	N	x	N	N
2391117WV   Wood window units, nak,   N	3219111391		54	Х	P1 833.2	302 269	N	х	N	N
Wood sash, excluding sash shipped in window units.   Wood sash, excluding sash shipped in   Wood window and cort frames, including excluding window frames shipped in   Wood window and door frames, including window frames shipped in   Wood window and door frames, including window frames shipped in door units, window units,   Wood window and door frames, including window frames shipped in door units,   Wood window and door frames, including window frames shipped in door units,   Wood window and door frames, including window frames shipped in door units,   Wood window and door frames, including window frames shipped in window units,   Wood window and door frames, including window frames shipped in window units,   Wood window and door frames, including window frames shipped in window units,   Wood window and door frames, including window frames shipped in window units,   Wood window and door frames, including window frames shipped in window units,   Wood window and door frames, including window frames shipped in window units,   Wood wind		Wood window units, nsk		X	X X			X		N 94 099
2391131	3219113	Wood sash, excluding sash shipped in	l N		V	426 022	N.	V	v	424 220
	32191131	Wood sash, excluding sash shipped in	l IN	^	^	130 923	IN IN	^	^	134 229
Section   Sect		window units	N	X	Х	122 008	N	X	X	N
Shipped in window units   Shipped in windo		units	9	Х	Х	53 416	19	х	Х	71 356
### State   St	3219113121		20	Х	924.1	68 592	21	х	P1 008.3	57 206
23991137WV	3219113Y		N	X	X	14 915	N	x	X	N
Wood window and door frames, including door frames shipped in door units, excluding window frames shipped in window units.	3219113YWV	Wood sash, excluding sash shipped in								5 667
32191151   Wood window and door frames, including door frames shipped in door units, excluding window frames shipped in window units.   N	3219115	Wood window and door frames, including door frames shipped in door units, excluding window frames shipped in								462 937
Window units   Wood panel, flush, and molded face doors, interior and exterior, including doors with glazed sections.   Now year and window states shipped in window trames shipped in window trames shipped in window trames shipped in window and door frames, including door frames shipped in door units.   Now year window and door frames, including door frames shipped in door units.   Now year window and door frames, including door frames shipped in door units.   Now year window and door frames, including door frames shipped in door units.   Now year window and door frames, window and doors, window and window and doors, window and doors	32191151	Wood window and door frames, including door frames shipped in door units,	IN IN	^	^	400 343	IN IN	^	^	402 937
Wood door frames, including door frames shipped in door units.	3219115111	window units Wood window frames, excluding window frames shipped in window								N
Wood window and door frames, including door frames shipped in door units, excluding window frames shipped in door units, excluding window frames, including door frames shipped in door units, excluding window frames, including door frames shipped in door units, excluding window frames, including door frames shipped in door units, excluding window frames, shipped in window units, n.s.k.	3219115121	Wood door frames, including door								141 325 295 773
Window Units, n.s.k.   N	3219115Y	Wood window and door frames, including door frames shipped in door units,	120	^	^	3/3 343	103	^	^	233 113
Shipped in window units, n.s.k.	3219115YWV	window units, n.s.k. Wood window and door frames, including door frames shipped in door	N	Х	Х	13 108	N	X	Х	N
Sections   N   X   X   2 042 240   N   X   X   X   X   X   X   X   X   X	3219117	shipped in window units, n.s.k	N	Х	Х	13 108	N	х	Х	25 839
doors, interior and exterior, including doors with glazed sections	32191171	glazed sections	N	Х	Х	2 042 240	N	X	Х	1 590 749
Sections		doors, interior and exterior, including doors with glazed sections	N	х	х	1 374 448	N	х	Х	N
Sections	3219117115	sectionsthousands Panel western pine doors, interior and	49	Х	1 211.3	143 988	66	×	S	165 604
Sections	3219117121	sectionsthousands Other panel wood doors, interior and	36	х	S	157 926	61	x	S	233 825
doors with glazed sections   16	3219117131	sectionsthousands Flush, hollow core, softwood faced	153	Х	S	219 011	112	X	<sup>q</sup> 703.4	111 526
3219117141 Flush, hollow core, hardboard faced doors, interior and exterior, including doors with glazed sections	3219117135	doors with glazed sections								56 349
doors with glazed sections	3219117141	Flush, hollow core, hardboard faced	54	X	S	119 869	91	×	S	254 942
3219117151 Flush, solid wood stave core, hardwood	3219117145	doors with glazed sections thousands Flush, hollow core, other faced doors, interior and exterior, including doors								174 097
faced doors (including lauan, birch, oak, etc.), interior and exterior,	3219117151	Flush, solid wood stave core, hardwood faced doors (including lauan, birch,	11	Х	S	14 902	13	X	S	23 677

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	Product	Number of companies		Product	shipments	Number of companies		Product	shipments
code		with shipments of \$100,000 or more	Quantity of production for all purposes	Quantity	Value (\$1,000)	with shipments of \$100,000 or more	Quantity of production for all purposes	Quantity	Value (\$1,000)
321911	Wood windows and doors—Con.								
3219117	Wood panel, flush, and molded face doors, interior and exterior, including doors with glazed sections—Con.								
32191171	Wood panel, flush, and molded face doors, interior and exterior, including doors with glazed sections —Con.								
3219117155	Flush, solid composition core, hardwood faced doors (including lauan, birch, oak, etc.), interior and exterior, including doors with glazed								
3219117161	sectionsthousands Flush, solid core, other faced doors, interior and exterior, including doors	56	Х	S	308 435	56	X	S	210 315
3219117171	with glazed sections thousands.  Molded face doors, interior and exterior, including doors with glazed	17	х	S	11 655	N	x	N	N
	sectionsthousands	40	Х	S	220 865	N	x	N	N
3219117Y	Wood panel, flush, and molded face doors, interior and exterior, including doors with glazed sections, nsk	N	Х	Х	667 792	N	x	Х	N
3219117YWV	Wood panel, flush, and molded face doors, interior and exterior, including								
3219119	doors with glazed sections, nsk	N	X	Х	667 792	N	X	Х	N
	patio, cabinet, screen, storm, and louver	N	Х	Х	1 335 500	N	X	X	970 859
32191191	Other wood doors, including garage, bifold, patio, cabinet, screen, storm, and louver	N	¥	¥	1 243 747	N	Y	Х	N
3219119111	Wood garage doors	28	X X X X X	X X X X X	77 972	34	X X X X		119 592
3219119121 3219119131	Wood bifold doors	42 44	X	X	61 027 251 561	48 41	X	X X X	99 309 237 662
3219119141	Wood patio doors, swinging	41	X	X	321 238	31	X	X	188 788
3219119151 3219119191	Wood cabinet doors Other wood doors, including screen,	115			419 797	N N		X	N
3219119Y	storm, and louver	49	Х	Х	112 152	N	X	Х	N
3219119YWV	patio, bifold, cabinet, screen, storm, and louver, nsk	N	x	Х	91 753	N	x	Х	N
02101101777	patio, bifold, cabinet, screen, storm, and louver, nsk	N	X	х	91 753	N	x	Х	49 531
321911W	Wood windows and doors, nsk, total	N	Х	Х	1 453 907	N	x	Х	N
321911WY 321911WYWW	Wood windows and doors, nsk, total	N	Х	Х	1 453 907	N	x	Х	N
321911WYWY	establishments	N	Х	Х	1 346 889	N	X	X	N
021311441441	administrative-record establishments	N	Х	Х	107 018	N	X	Х	N

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: P 10 to 19 percent estimated; Q 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 product shipments (\$1,000)				
code	V V I	1997	1992			
3219111	WOOD WINDOW UNITS					
	United States	2 579 448	2 393 830			
	California Colorado Georgia Massachusetts Michigan	4 834 74 186 8 048	21 793 21 066 N 14 671 48 004			
	Missouri. New York North Carolina Ohio Pennsylvania	6 976 32 888 56 131	N 15 993 12 182 104 726 N			

See footnotes at end of table.

<sup>#</sup> 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 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 product shipment (\$1,000)	ts
code		1997	199:
3219111	WOOD WINDOW UNITS—Con.		
	Texas	3 809 66 137	7 33 61 61
	Washington	6 936 642 505	17 96 508 65
3219113	WOOD SASH, EXCLUDING SASH SHIPPED IN WINDOW UNITS	0.2 000	333 33
	United States	136 923	134 22
	California	11 012	2 85
	Georgia	7 279 8 568	
	Oregon	22 411 16 153	12 45
3219115	WOOD WINDOW AND DOOR FRAMES, INCLUDING DOOR FRAMES SHIPPED IN DOOR UNITS, EXCLUDING WINDOW FRAMES SHIPPED IN WINDOW UNITS		
	United States	486 543	462 93
	Arizona	4 112 80 018	5 43 81 62
	Colorado	2 257 2 485	2 65
	Georgia	6 443	ļ
	Indiana	6 864 2 349	4 89
	Minnesota	6 869 25 401	10 97: 1
	Ohio	4 358	i
	Oregon	190 453 4 273	180 78 6 19
	Texas. Virginia	34 614 9 522	17 15 4 92
	Washington	16 808 16 408	17 99 6 34
040447	Wisconsin	10 400	0 34
219117	WOOD PANEL, FLUSH, AND MOLDED FACE DOORS, INTERIOR AND EXTERIOR, INCLUDING DOORS WITH GLAZED SECTIONS		
	United States	2 042 240	1 590 74
	Alabama	110 938 30 780	67 97 29 10
	California	181 783	104 78
	Colorado	10 387 2 276	7 76
	Florida	58 569 18 609	42 27 24 54
	Illinoiš	13 256	23 96
	Indiana	141 027 110 936	100 36 36 18
	Kansas	15 122 5 030	6 24
	Massachusetts	15 360	11 90
	Michigan	73 858 17 220	86 34 7 31
	Missouri	10 246	15 73
	New Mexico	3 687 18 467	31 89
	North Carolina	35 516 24 756	40 10 28 26
	Oregon	51 218	93 50
	Pennsylvania	99 431   17 744	62 35 14 09
	Texas	222 664 80 336	142 33 37 47
	Washington	154 406 294 990	161 89 257 77
3219119	OTHER WOOD DOORS, INCLUDING GARAGE, BIFOLD, PATIO, CABINET, SCREEN, STORM, AND LOUVER		
	United States	1 335 500	970 85
	Alabama	41 285 7 979	25 49 7 24
	California	125 505 8 525	76 41 5 37
	Florida	23 626	15 62
	Georgia	15 777 14 492	13 89 1
	Illinois Indiana	26 623 55 368	21 05 54 67
	Kentucky.	9 066	5 32
	Massachusetts	3 616	3 72
	Mississippi	9 643 8 607	24 04
	Missouri	4 916 6 307	i
	New Jersey	10 453	١
	New York	6 343 23 873	12 71: 7 48:
	Ohio	38 492	41 99

See footnotes at end of table.

#### 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 product shipments (\$1,000)				
code		1997	1992			
3219119	OTHER WOOD DOORS, INCLUDING GARAGE, BIFOLD, PATIO, CABINET, SCREEN, STORM, AND LOUVER—Con.					
	Oregon           Pennsylvania           South Carolina           Texas           Utah           Virginia           Washington           Wisconsin	75 226 11 294	37 130 38 064 5 492 89 622 N 37 546 26 073 68 826			

#### 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)
321911	WOOD WINDOW & DOOR MFG				
32100023 32100029 32100027 32100033 32191201	Hardwood rough lumber Softwood rough lumber Hardwood dressed lumber Softwood dressed lumber Softwood cut stock	X X X X	97 365 140 502 61 840 178 088 566 571	X X X X	N N N N
32191203 32121101 32121201 32121105 32121903	Hardwood cut stock and dimension, excluding furniture frames Hardwood plywood Softwood plywood Hardwood veneer Particleboard (wood)	X X X	66 552 120 276 35 032 45 278 58 599	X X X X X	N N N N N N N N N N N N N N N N N N N
32121909 32121907 32552003 32721103 32610013	Hardboard Medium density fiberboard (MDF) Glues and adhesives Glass (float, sheet and plate) Plastics products consumed in the form of sheets, rods, tubes, film, and other shapes	X	59 819 43 443 54 997 307 949 122 953	X X X X	N N N N N N N N N N N N N N N N N N N
32221001 33251009	Paperboard containers, boxes, and corrugated paperboard		37 756	X	N
00970099 00971000	hardware, etc.) All other materials and components, parts, containers, and supplies Materials, ingredients, containers, and supplies, n.s.k.	X	210 977 551 462 1 739 053	X X X	N N N

<sup>#</sup> 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: P 10 to 19 percent estimated; q 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

<sup>#</sup> 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.

## Appendix A. Explanation of Terms

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

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

#### **Inventory Data by Stage of Fabrication**

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

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

#### **COST OF MATERIALS**

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

Included in this item are:

- 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.
- Cost of products bought and sold in the same condition.

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

#### **Specific Materials Consumed**

In addition to the total cost of materials, which every establishment was required to report, information also was collected for most manufacturing industries on the consumption of major materials used in manufacturing. The inquiries were restricted to those materials 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

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

#### **All Other Employees**

This item covers nonproduction employees of the manufacturing establishment including those engaged in factory supervision above the line-supervisor level. It

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

#### **FRINGE BENEFITS**

Fringe benefits are divided into legally required expenditures and payments for voluntary programs. The legally required portion consists primarily of Federal old age and survivors' insurance, unemployment compensation, and workers' compensation. Payments for voluntary programs include all programs not specifically required by legislation whether they were employer initiated or the result of collective bargaining. They include the employer portion of such plans as insurance premiums, premiums for supplemental accident and sickness insurance, pension plans, supplemental unemployment compensation, welfare plans, stock purchase plans on which the employer payment is not subject to withholding tax, and deferred profit-sharing plans. They exclude such items as 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 six-digit 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

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
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 reproducing
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 six-digit 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 beginning-and end-of-year inventories.

For those industries where value of production is collected instead of value of shipments, value added is adjusted only for the change in work-in-process inventories between the beginning and end of year. For those

industries where value of work done is collected, the value added does not include an adjustment for the change in finished goods or work-in-process inventories.

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

#### **VALUE OF SHIPMENTS**

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

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

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

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

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.

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## 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

## 321911 WOOD WINDOW AND DOOR MANUFACTURING

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

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

2431 Millwork (pt)

## 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:

 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 four-digit SIC industry and then erroneously re-coded to a six-digit NAICS industry. This was especially true whenever there was a relatively fine line of demarcation between industries or between manufacturing and nonmanufacturing activity.

Sometimes the administrative-record cases had only two- or three-digit SIC group classification codes available in the files. For the 1997 Economic Census – Manufacturing, these establishments were sent a separate classification form, which requested information on the products and services of the establishment. This form was used to code many of these establishments to the appropriate six-digit NAICS level. Establishments that did not return the classification form were coded later to those six-digit NAICS industries identified as "All other" industries within the given subsector.

As a result of these situations, a number of small establishments may have been misclassified by industry. However, such possible misclassification has no significant effect on the statistics other than on the number of companies and establishments.

The total establishment count for individual industries should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 employees or more are far more reliable than the count of total number of establishments.

2. Establishments sent a report form.

The establishments covered in the mail canvass were divided into three groups:

a. ASM sample establishments.

This group accounts for approximately 15 percent of all manufacturing establishments. The ASM panel covers all the units of large manufacturing establishments as well as a sample of the medium and smaller establishments. The probability of selection was proportionate to size. For more information, see the Description of the ASM Survey Sample.

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In an economic census year, the ASM report form (MA-1000) replaces the first page of the regular census form for those establishments included in the ASM. In addition to information on employment, payroll, and other items normally requested on the regular census form, establishments in the ASM sample were requested to supply additional information on gross book value of assets and capital expenditures. ASM establishments were also requested to provide information on retirements, depreciation, rental payments, and supplemental labor costs. For establishments not included in the ASM, these additional items were estimated using relationships observed in the ASM establishment data. The census statistics for these variables are a sum of the ASM establishment data and the estimated data for non-ASM establishments. ASM establishments were also requested to provide information for selected purchased services. The census statistics for the purchased service items were derived solely from the ASM establishments. See Appendix A, Explanation of Terms for an explanation of these items. The census part of the report form is 1 of 220 versions containing product, material, and special inquiries. The diversity of manufacturing activities necessitated the use of this many forms to canvass the 480 manufacturing industries. Each form was developed for a group of related industries.

Appearing on each form was a list of products primary to the group of related industries as well as secondary products and miscellaneous services that establishments classified in these industries were likely to perform. Respondents were requested to identify the products, the value of each product, and, in many cases, the quantity of the product shipped during the survey year. Space also was provided for the respondent to describe products not specifically identified on the form.

The report form also contained a materials-consumed inquiry which varied from form to form depending on the industries being canvassed. The respondents were asked to review a list of materials generally used in their production processes. From this list, each establishment was requested to identify those materials consumed during the survey year, the cost of each, and, in certain cases, the quantity consumed. Once again, space was provided for the respondent to describe significant materials not identified on the form.

A wide variety of special inquiries was included to measure activities peculiar to a given industry, such as operations performed and equipment used.

b. Large and medium establishments (non-ASM).

Approximately 30 percent of all manufacturing establishments were included in this group. A variable cutoff, based on administrative-record payroll data and determined on an industry-by-industry basis, was used to select those establishments that were to receive 1 of the 220 economic census – manufacturing regular forms. The first page, requesting establishment data for items such as employment and payroll, was standard but did not contain the detailed statistics included on the ASM form. The product, material, and special inquiry sections supplied were based on the historical industry classification of the establishment.

c. Small single-establishment companies (non-ASM).

This group includes approximately 15 percent of all manufacturing establishments. For those industries where application of the variable cutoff for administrative-record cases resulted in a large number of small establishments being included in the mail canvass, an abbreviated or short form was used. These establishments received 1 of the 31 versions of the short form, which requested summary product and material data and totals but no details on employment, payroll, cost of materials, inventories, and capital expenditures.

Use of the short form has no adverse effect on published totals for the industry statistics because the same data were collected on the short form as on the long form. However, detailed information on products and materials consumed was not collected on the short form; thus, its use would increase the value of the nsk categories.

## INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each of the establishments covered in the 1997 Economic Census – Manufacturing was classified in 1 of 480 industries (473 manufacturing industries and 7 former manufacturing industries) in accordance with the industry definitions in the 1997 NAICS Manual. This is the first edition of the NAICS Manual and it is a major change from the 1987 SIC Manual that was used previously. Appendix A of the 1997 NAICS Manual notes the comparability between the 1987 SIC and 1997 NAICS classification systems. When applicable, Appendix G of this report shows the product class and product comparability between the two systems for data in this report.

In the NAICS system, an industry is generally defined as a group of establishments that have similar production processes. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added by manufacture, value of shipments, and number of employees.

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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.

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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

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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 broader-based annual survey of manufactures and the economic

census – manufacturing. The economic census – manufacturing provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. While the CIR program includes both mandatory and voluntary surveys, the annual data are mandatory.

## **DUPLICATION IN COST OF MATERIALS AND VALUE OF SHIPMENTS**

Data for cost of materials and value of shipments include varying amounts of duplication, especially at higher levels of aggregation. This is because the products of one establishment may be the materials of another. The value added statistics avoid this duplication and are, for most purposes, the best measure for comparing the relative economic importance of industries and geographic areas.

## VALUE OF INDUSTRY SHIPMENTS COMPARED WITH VALUE OF PRODUCT SHIPMENTS

The 1997 Economic Census – Manufacturing shows value of shipments data for industries and products. In the industry statistics tables and files, these data represent the total value of shipments of all establishments classified in a particular industry. The data include the shipments of the products classified in the industry (primary to the industry), products classified in other industries (secondary to the industry), and miscellaneous receipts (repair work, sale of scrap, research and development, installation receipts, and resales). Value of product shipments shown in the products statistics tables and files represent the total value of all products shipped that are classified as primary to an industry regardless of the classification of the producing establishment.

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## Appendix D. Geographic Notes

Not applicable for this report.

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## Appendix E. Metropolitan Areas

Not applicable for this report.

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# 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
	24211 pt 2421111		3212117 3212117111		24353 2435331	3212197 3212197111	24936	
3211131121	2421115	2421163 pt	3212117291	2435398	2435398	3212197121	2493616	2493616
3211131131	2421121 2421125	2421165 pt 2421177 pt	3212117YWV pt	2435300 pt	2435300 2435311	3212197131 3212197YWV	2493617 2493600	
3211131YWV	2421100 pt	2421100 pt		·		3212198	24937	
3211133	24212 pt	24212 pt	321211W	2435000	24350 2435000	3212198111	2493721	2493721
3211133111 3211133121	2421241 2421244	2421212 pt 2421213 pt	321211WYWY	2435002	2435002	3212198121 3212198YWV	2493731 2493700	
3211133131	2421247	2421215 pt	3212121		24364	321219W	24930	
3211133241 3211133351	2421251 2421254	2421233 pt 2421235 pt	3212121100		2436400	321219VV Y VV VV	2493000	2493000
3211133461 3211133YWV	2421257	2421237 pt 2421200 pt	3212123	24365 2436501	24365 2436501	321219WYWY	2493002	
32111351	·		3212123221	2436505	2436505	3219111	24311 2431131	24311 2431131
3211135111	2421516	2421516	3212123331 3212123441	2436511 2436521	2436511 2436521	3219111121	2431132	2431132
3211135121 3211135231	2421522	2421522 2421518	3212123451 3212123YWV	2436523 2436500	2436523 2436500	3219111231 3219111241	2431136	2431136
3211135241	2421524	2421524				3219111351 3219111361	2431142	
	2421500		3212125 3212125111	2436607	24366 2436607	3219111391 pt	2431191 pt	2431134
	24218 pt		3212125121 3212125131	2436611 2436613	2436611 2436613	3219111391 pt 3219111YWV	2431191 pt	2431145 2431100
	24219 pt		3212125141	2436615	2436615	3219113	24312	
3211137 pt 3211137111	24290 pt 2421817		3212125151 3212125YWV	2436617 2436600	2436617 2436600	3219113111	2431209	2431209
3211137121	2421813	2421813	3212127		24367	3219113121 3219113YWV	2431215 2431200	2431215 2431200
3211137131 pt 3211137131 pt	2429011 pt	2429007	3212127111	2436703	2436703	3219115	24313	
3211137131 pt 3211137141		2429009 2421911	3212127121 3212127191 pt	2436721 2436727 pt	2436721 2436723	3219115111	2431313	
3211137YWV pt	2421800 pt 2421900 pt	2421800 pt	3212127191 pt	2436727 pt	2436725 2436700	3219115121 3219115YWV	2431300	
						3219117	24314	24314
	24210 pt		3212129	2436331	24363 2436331	3219117111 3219117115	2431413	2431413
	24290 pt		3212129191 3212129YWV pt	2436398	2436398 2436300	3219117121 3219117131	2431419	2431419
321113W pt 321113WYWW pt	24390 pt 2421000 pt	2421000 pt	3212129YWV pt	2436300 pt	2436311	3219117135	2431433	2431433
321113WYWW pt 321113WYWW pt	2429000 pt	2429000 pt	321212W	24360	24360	3219117141 3219117145	2431435 2431437	2431435 2431437
321113WYWW pt	2439085	2439033 pt	321212WYWW	2436000	2436000 2436002	3219117151 3219117155	2431441 2431445	2431441
321113WYWY pt 321113WYWY pt	2421002 pt	2421002 pt 2429002 pt			24390 pt	3219117161 pt	2431449 pt	2431446
321113WYWY pt	2439002 pt	2439002 pt	3212130	2439011	2439098 pt	3219117161 pt 3219117171	2431449 pt	2431448 2431400 pt
3211141 3211141111		24912 2491201	3212130221 3212130231		2439031 2439098 pt	3219117YWV	2431400	2431400 pt
3211141121	2491203	2491203	3212130241 pt	2439025 pt	2439035 2439098 pt	3219119	24315 2431561	
3211141131 pt	2491208 pt	2491205 2491207	3212130241 pt 3212130YWW	2439000 pt	2439000 pt	3219119111 3219119121	2431584	2431584
3211141141	2491209	2491209	3212130YWY	2439002 pt	2439002 pt	3219119131 3219119141	2431585 2431587	2431585 2431587
3211141151 3211141161	2491214	2491214	3212140		24390 pt 2439051 pt	3219119151	2431588	2431597 pt
3211141171 3211141YWV	2491216 2491200	2491216 2491200	3212140111 pt	2439061 pt	2439098 pt	3219119191 pt 3219119191 pt	2431591 pt	2431581
3211145		24913	3212140121 3212140131 pt	2439065		3219119191 pt 3219119YWV	2431591 pt	2431597 pt 2431500
3211145111	2491302	2491302	3212140131 pt 3212140YWW	2439071 pt	2439098 pt	321911W	24310 pt	
3211145121 3211145131	2491305 2491307	2491305 2491307	3212140YWY	2439000 pt	2439000 pt 2439002 pt	321911WYWW	2431000 pt	2431000 pt
3211145141 3211145151	2491309	2491309	3212191		24931	321911WYWY	·	•
3211145161	2491314	2491314	3212191111 pt 3212191111 pt	2493111 pt	2493120	3219121	24211 pt	24211 pt 2421161 pt
3211145171 3211145191	2491321	2491321	3212191221 pt	2493115 pt	2493103	3219121121	2421141	2421163 pt
3211145YWV	2491300	2491300	3212191221 pt 3212191291	2493191		3219121131 3219121141	2421151	2421165 pt 2421177 pt
3211149	24919	24919 2491905	3212191YWV	2493100		3219121151 pt	2421155 pt	2421161 pt
3211149121	2491907	2491907	3212192	24932	24932	3219121151 pt	2421155 pt	2421165 pt
3211149191 3211149YWV	2491911 2491900	2491911 2491900	3212192111 3212192121		2493205 2493207	3219121151 pt 3219121YWV	2421155 pt	2421175 2421100 pt
321114W	24910	24910	3212192191 pt 3212192191 pt	2493291 pt	2493209 2493221	3219123	24212 pt	•
321114WYWW		2491000	3212192YWV	2493200	2493221	3219123111	2421264	2421212 pt
			3212193	24933	24933	3219123121 3219123131	2421271	2421215 pt
3212111	2435419	2435419	3212193111 pt 3212193111 pt	2493311 pt	2493314 pt 2493316 pt	3219123141 3219123151	2421274	2421233 pt
3212111221 3212111231	2435415	2435415	3212193191 pt	2493391 pt	2493314 pt	3219123161	2421281	2421237 pt
3212111241	2435421	2435421	3212193191 pt 3212193YWV	2493391 pt	2493316 pt 2493300	3219123171 pt 3219123171 pt	2421284 pt 2421284 pt	2421212 pt 2421213 pt
3212111251 3212111261	2435431	2435431	3212194		24934	3219123171 pt	2421284 pt	2421215 pt
3212111YWV	2435400	2435400	3212194111	2493412	2493412	3219123171 pt 3219123YWV	2421284 pt	2421231 2421200 pt
3212113 3212113111	24351 2435101	24351 2435101	3212194121 3212194131	2493416	2493416	3219125	24262	24262
3212113221	2435105	2435105	3212194141 3212194151	2493417	2493417	3219125111 3219125115	2426231	2426224 pt
3212113231 3212113291	2435147	2435107 2435147	3212194161	2493419	2493419	3219125221	2426233	2426251 pt
3212113YWV	2435100	2435100		2493400		3219125225 3219125331	2426235	2426281 pt
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1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published
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3219125451 3219125YWV	2426287 2426200	2426287 2426200	3219201111	2441127	2441127	3219925121	2452335	2452335 2452337
			3219201121	2441163	2441163	3219925131 3219925YWV	2452300	2452300
3219127 pt	24217	24217	3219201YWV	2441100	2441100			
3219127 pt	24994 pt	24994 pt	3219203	24412	24412	3219927 3219927111	24524 2452441	24524 2452441
3219127111	2421711	2421711	1 3219203111	2441211	2441211	3219927221	2452447	2452447
3219127121 3219127131 pt	2421751 2499493 pt	2421751 2499491 pt	3219203121	2441215 2441225	2441215 2441225	3219927221 3219927YWV	2452400	2452400
3219127131 pt	2499493 pt	2499491 pt 2499498 pt	3219203131	2441200	2441223	321992W	24520	24520
3219127YWV pt	2421700	2421700				321992W	24520	2452000
3219127YWV pt	2499400 pt	2499400 pt	3219205 3219205111	24480 pt 2448062	24480 pt 2448062	321992WYWY	2452002	2452002
3219129 pt	24218 pt	24218 pt	3219205221	2448065	2448065	3219990 pt	24210 pt	24210 pt
3219129 pt			3219205231	2448066	2448066	3219990 pt	24218 pt	24218 pt
3219129111	2421825	2421825	3219205241 3219205YWV	2448064	2448064 2448000 pt		•	•
3219129121	2421823	2421823		•	·	3219990 pt	24219 pt	24219 pt
3219129131 3219129YWV pt	2421971 2421800 pt		3219207 pt	24290 pt	24290 pt	3219990 pt	24290 pt	24290 pt
3219129YWV pt	2421900 pt	2421900 pt	3219207 pt	24490 pt	24490 pt	3219990 pt	24990 pt	24990 pt
•	•		3219207 pt	24994 pt	24994 pt	3219990 pt		•
	24210 pt		3219207111	2449011	2449011		•	•
321912W pt	24260 pt	24260 pt	1.3219207121	2449021	2449021	3219990 pt	24992	24992
321912W pt	24390 pt	24390 pt	3219207131 3219207141	2449043 2449073	2449043 2449073	3219990 pt	24994 pt	24994 pt
			3219207151	2499411	2499411	3219990 pt	31310 pt	31310 pt
321912W pt	2421000 nt	2421000 pt	3219207191 pt	2429021	2429087 pt			•
321912WYWW pt	2426000 pt	2426000 pt	3219207191 pt 3219207191 pt	2449061 2499481	2449061 2499498 pt	3219990 pt	39990 pt	39990 pt
321912WYWW pt 321912WYWW pt	2439000 pt	2439000 pt 2439033 pt	3219207YWV pt	2449000 pt	2499498 pt 2449000 pt	3219990 pt	39999 pt	39999 pt
321912WYWW pt	2499000 pt	2499000 pt	3219207YWV pt	2499400 pt	2499400 pt	3219990111 3219990114	2499131 2499200	2499131 2499200
321912WYWY pt	2421002 pt	2421002 pt	321920W pt	24290 pt	24290 pt	3219990114	2499200	2499200 2499414
321912\MY\MY nt	2426002 nt	2426002 pt	· ·	·	•	3219990124 3219990127	2499416	2499416
321912WYWY pt 321912WYWY pt	2439002 pt 2499002 pt	2499002 pt	321920W pt			3219990127	2499417	2499417
•	•	·	321920W pt	24480 pt	24480 pt	3219990131 3219990134	2499419	2499419 2499423
3219181 3219181111	24316 2431621	24316 2431621	321920W pt	24490 pt	24490 pt	3219990137	2499426	2499425 pt
3219181121	2431631	2431631	i i	•	·	3219990141	2499441	2499441
3219181131	2431651	2431651	321920W pt 321920WYWW pt	24990 pt 2429000 pt	24990 pt 2429000 pt	3219990144	2499451	2499451
3219181YWV	2431600	2431600	321920WYWW pt	2441000	2441000	3219990147	2499454	2499454
3219183	24317	24317	321920WYWW pt	2448000 pt	2448000 pt	3219990151	2499457	2499457 2499458
3219183111	2431725	2431725	321920WYWW pt 321920WYWW pt	2449000 pt	2449000 pt 2499000 pt	3219990154 3219990157	2499458	2499462
3219183121 3219183YWV	2431771 2431700	2431771 2431700	321920WYWY pt	2429002 pt	2429002 pt	3219990161	2499471	2499471
			321920WYWY pt	2441002	2441002	3219990164	2499475	2499475
3219185 pt			321920WYWY pt	2448002	2448002	3219990167 3219990171	2499485	2499485 2499489
3219185 pt	24318	24318	321920WYWY pt 321920WYWY pt	2449002	2449002 2499002 pt	3219990174	2499499	2499497
3219185111 3219185121	2431821 2431825	2431821 2431825				3219990191 pt	2421896	2421896
3219185121		2431825 2431835	3219911	24511	24511	3219990191 pt	2421961	2421951 pt
3219185141	2431873	2431873	3219911111 3219911121 pt	2451111	2451111 2451113	3219990191 pt	2429031	2429087 pt
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3219185161 3219185191 pt	2421811 2431891 pt	2421811 2431833	3219911231	2451114	2451117 pt	3219990191 pt 3219990191 pt	2499492 2499496 pt	2499491 pt 2499498 pt
3219185191 pt	2431891 pt	2431898	1 3219911241	2451116 2451118	2451117 pt	3219990191 pt	3131033	3131061 pt
3219185YWV pt	2421800 pt	2421800 pt	3219911351 3219911YWV	2451110	2451110	3219990191 pt	3999994 pt	3999913 pt
3219185YWV pt	2431800	2431800				3219990191 pt	3999994 pt	3999942 pt
3219187	24261	24261	3219915 3219915111			3219990191 pt 3219990191 pt	3999931	3999999 pt 3999999 pt
3219187111	2426111	2426111	3219915121	2451222	2451222			·
3219187121 3219187131	2426121 2426123	2426121 2426123	3219915YWV	2451200	2451200	3219990YWW pt 3219990YWW pt	2421000 pt 2421800 pt	2421000 pt 2421800 pt
3219187241	2426131	2426131	321991W	24510	24510	3219990YWW pt	2421900 pt	2421900 pt
3219187251	2426141	2426141	321991WYWW	2451000	2451000	3219990YWW pt	2429000 pt	2429000 pt
3219187291 3219187YWV	2426198 2426100	2426198 2426100	321991WYWY	2451002	2451002	3219990YWW pt	2499000 pt	2499000 pt
			3219921	24521	24521	3219990YWW pt 3219990YWW pt	2499100 pt	2499100 pt 2499400 pt
321918W pt	24210 pt	24210 pt	3219921111	2452173	2452173	3219990YWW pt	3131000 pt	3131000 pt
321918W pt	24260 pt	24260 pt	3219921121 3219921YWV	2452175	2452175	3219990YWW pt	3999000 pt	3999000 pt
321918W pt	24310 pt	24310 pt	3219921YWV	2452100	2452100	3219990YWW pt	3999900 pt	3999900 pt
321918WYWW pt	2421000 pt	2421000 pt	3219923	24522	24522	3219990YWY pt	2421002 pt	2421002 pt
321918WYWW pt	2426000 pt	2426000 pt	3219923111	2452217	2452217	3219990YWY pt	2429002 pt	2429002 pt
321918WYWW pt 321918WYWY pt			3219923121 3219923131	2452219 2452223	2452219 2452223	3219990YWY pt 3219990YWY pt	2499002 pt 3131002 pt	2499002 pt 3131002 pt
321918WYWY pt	2421002 pt	2426002 pt	3219923YWV	2452223	2452200	3219990YWY pt	3999002 pt	3999002 pt
O	500 <b>_</b> p	000 <b>_ p</b> .	1 30-0			1 3000 pr		