

Men's and Boys' Neckwear Manufacturing

1997

Issued August 1999

EC97M-3159C

1997 Economic Census

Manufacturing

Industry Series



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

Helping You Make Informed Decisions

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



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**, **Arona Stovall**, **Sue Sundermann**, **Thanos Theodoropoulos**, **Dora Thomas**, **Ann Truffa**, **Ronanne Vinson**, **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 coordination of the publication process.

Kim Credito, **Patrick Duck**, **Chip Murph**, **Wanda Sledd**, and **Veronica White** provided primary staff assistance.

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.

The Geography Division staff developed geographic coding procedures and associated computer programs.

The Economic Statistical Methods and Programming Division, **Charles P. Pautler Jr.**, Chief, developed and coordinated the computer processing systems. **Martin S. Harahush**, Assistant Chief for Quinquennial Programs, assisted by **Barbara Lambert** and **Christina Arledge** were responsible for design and implementation of the computer systems. **Gary T. Sheridan**, Chief, Manufacturing and Construction Branch, **Lori A. Guido** and **Roy A. Smith**, Section Chiefs, supervised the preparation of the computer programs.

Computer Services Division, **Debra Williams**, Chief, performed the computer processing.

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.

Men's and Boys' Neckwear Manufacturing

1997

Issued August 1999

EC97M-3159C

1997 Economic Census

Manufacturing

Industry Series



U.S. Department of Commerce

William M. Daley,

Secretary

Robert L. Mallett,

Deputy Secretary

**Economics
and Statistics
Administration**

Robert J. Shapiro,

Under Secretary for
Economic Affairs

U.S. CENSUS BUREAU

Kenneth Prewitt,

Director



**Economics
and Statistics
Administration**

Robert J. Shapiro,
Under Secretary
for Economic Affairs



U.S. CENSUS BUREAU

Kenneth Prewitt,
Director

William G. Barron,
Deputy Director

Paula J. Schneider,
Principal Associate Director
for Programs

Frederick T. Knickerbocker,
Associate Director
for Economic Programs

Thomas L. Mesenbourg,
Assistant Director
for Economic Programs

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

CONTENTS

Introduction to the Economic Census	1
Manufacturing	5

TABLES

1. Industry Statistics on NAICS Basis With Distribution Among 1987 SIC-Based Industries: 1997	7
2. Industry Statistics for Selected States: 1997	7
3. Detailed Statistics by Industry: 1997	8
4. Industry Statistics by Employment Size: 1997.....	9
5. Industry Statistics by Industry and Primary Product Class Specialization: 1997	9
6a. Products Statistics: 1997 and 1992.....	10
6b. Product Class Shipments for Selected States: 1997 and 1992 .	--
7. Materials Consumed by Kind: 1997 and 1992.....	10

APPENDIXES

A. Explanation of Terms	A-1
B. NAICS Codes, Titles, and Descriptions	B-1
C. Coverage and Methodology.....	C-1
D. Geographic Notes	--
E. Metropolitan Areas	--
F. Footnotes for Products Statistics and Materials Consumed by Kind	--
G. Comparability of Product Classes and Product Codes: 1997 to 1992.....	G-1

-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

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

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

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

ALL-NEW INDUSTRY CLASSIFICATIONS

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

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

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

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

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

RELATIONSHIP TO SIC

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

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

GEOGRAPHIC AREA CODING

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

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

BASIS OF REPORTING

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

DOLLAR VALUES

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

All dollar values are shown in thousands of dollars.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

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

Special Tabulations

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

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

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

HISTORICAL INFORMATION

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

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

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

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

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

SOURCES FOR MORE INFORMATION

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

ABBREVIATIONS AND SYMBOLS

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

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

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

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.

GENERAL

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

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

State reports, which include the District of Columbia, present similar statistics at the “all manufacturing” level for each state and its metropolitan areas (MAs) with 250 employees or more, and for counties, consolidated cities, and places with 500 employees or more. The state reports also include six-digit NAICS level data for industries with 100 employees or more in the state.

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

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

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

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

GEOGRAPHIC AREAS COVERED

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

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

Data are available for the metropolitan areas (MAs) with 250 employees or more. The term MA is a general term used to encompass all of the specifically defined metropolitan areas. A consolidated metropolitan statistical area (CMSA) is made up of two or more contiguous primary metropolitan statistical areas (PMSAs) with a combined population of at least 1 million. A PMSA is a subdivision of a CMSA that demonstrates very strong internal economic and social links separate from the ties to other portions of the CMSA. A metropolitan statistical area (MSA) is an integrated economic and social unit with a population of at least 50,000. An MA is made up of one or more counties meeting standards of metropolitan character. In New England, cities and towns, rather than counties, are the component geographic units. Determination of the MAs was made by the Office of Management and Budget (OMB) as of June 30, 1997. The population estimates were from the 1990 Census of Population or a subsequent special

census. When applicable, the make-up of an MA is included in Appendix E. Changes to geographical boundaries are noted in Appendix D.

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

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

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

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

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

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

Another change resulting from the conversion to NAICS is that data for central administrative offices (CAOs) associated with manufacturing are not included along side the

manufacturing data. This change affects data in the state reports and the general summary.

DISCLOSURE

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

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

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

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

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

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

Table 1. Industry Statistics 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 or SIC code	Industry	Compan-ies ¹	All estab-lish-ments ²	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expendi-tures (\$1,000)
				Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
315993	Men's & boys' neckwear mfg ..	117	122	4 914	116 787	3 801	6 314	61 571	330 049	269 203	597 171	3 611
232300	Men's & boys' neckwear	N	122	4 914	116 787	3 801	6 314	61 571	330 049	269 203	597 171	3 611

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

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

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]

Industry and geographic area	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expendi-tures (\$1,000)
		Total	With 20 em-ploy-ees or more	Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
315993, MEN'S & BOYS' NECKWEAR MFG												
United States	2	122	51	4 914	116 787	3 801	6 314	61 571	330 049	269 203	597 171	3 611
California	2	17	6	1 119	23 776	967	1 659	16 093	87 623	69 324	153 966	1 118
New Jersey	1	7	2	151	3 362	141	303	2 791	5 067	2 109	7 177	163
New York	1	53	21	1 599	38 799	1 270	2 337	21 052	107 673	87 885	197 543	940
North Carolina	—	8	5	328	10 260	228	361	3 708	22 944	36 348	59 825	192

* 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
315993, MEN'S & BOYS' NECKWEAR MFG		315993, MEN'S & BOYS' NECKWEAR MFG—Con.	
Companies ¹	number.. 117	Value added	\$1,000.. 330 049
All establishments	number.. 122	Total inventories, beginning of year	\$1,000.. 88 901
Establishments with 1 to 19 employees	number.. 71	Finished goods inventories, beginning of year	\$1,000.. 49 062
Establishments with 20 to 99 employees	number.. 37	Work-in-process inventories, beginning of year	\$1,000.. 12 069
Establishments with 100 employees or more	number.. 14	Materials and supplies inventories, beginning of year	\$1,000.. 27 770
All employees	number.. 4 914	Total inventories, end of year	\$1,000.. 90 748
Total compensation ²	\$1,000.. 133 624	Finished goods inventories, end of year	\$1,000.. 51 608
Annual payroll	\$1,000.. 116 787	Work-in-process inventories, end of year	\$1,000.. 11 604
Total fringe benefits	\$1,000.. 16 837	Materials and supplies inventories, end of year	\$1,000.. 27 536
Production workers, average for year	number.. 3 801	Gross book value of total assets at beginning of year	\$1,000.. 52 628
Production workers on March 15	number.. 3 793	Total capital expenditures (new and used)	\$1,000.. 3 611
Production workers on May 15	number.. 3 824	Capital expenditures for buildings and other structures (new and used)	\$1,000.. 400
Production workers on August 15	number.. 3 811	Capital expenditures for machinery and equipment (new and used)	\$1,000.. 3 211
Production workers on November 15	number.. 3 776	Total retirements ²	\$1,000.. 737
Production-worker hours	1,000.. 6 314	Gross book value of total assets at end of year	\$1,000.. 55 502
Production-worker wages	\$1,000.. 61 571	Total depreciation during year ²	\$1,000.. 4 742
Total cost of materials	\$1,000.. 269 203	Total rental payments ²	\$1,000.. 9 592
Cost of materials, parts, containers, etc., consumed	\$1,000.. 219 209	Buildings and other structures rental payments ²	\$1,000.. 6 059
Cost of resales	\$1,000.. 21 223	Machinery and equipment rental payments ²	\$1,000.. 3 533
Cost of fuels	\$1,000.. 804	Cost of purchased services for the repair of buildings and other structures ³	\$1,000.. 223
Cost of purchased electricity	\$1,000.. 2 088	Response coverage ratio ⁴	percent.. 64
Cost of contract work	\$1,000.. 25 879	Cost of purchased services for the repair of machinery and equipment ³	\$1,000.. 813
Quantity of electricity purchased for heat and power	1,000 kWh.. 28 592	Response coverage ratio ⁴	percent.. 64
Quantity of electricity generated less sold for heat and power	1,000 kWh.. -	Cost of purchased communications services ³	\$1,000.. 1 014
Total value of shipments	\$1,000.. 597 171	Response coverage ratio ⁴	percent.. 64
Primary products value of shipments	\$1,000.. 524 240	Cost of purchased legal services ³	\$1,000.. 252
Secondary products value of shipments	\$1,000.. 24 751	Response coverage ratio ⁴	percent.. 64
Total miscellaneous receipts	\$1,000.. 48 180	Cost of purchased accounting and bookkeeping services ³	\$1,000.. 1 606
Value of resales	\$1,000.. 31 122	Response coverage ratio ⁴	percent.. 64
Contract receipts	\$1,000.. D	Cost of purchased advertising services ³	\$1,000.. 2 500
Other miscellaneous receipts	\$1,000.. D	Response coverage ratio ⁴	percent.. 64
Primary products specialization ratio	percent.. 95	Cost of purchased software and other data processing services ³	\$1,000.. 1 320
Value of primary products shipments made in all industries	\$1,000.. 537 312	Response coverage ratio ⁴	percent.. 64
Value of primary products shipments made in this industry	\$1,000.. 524 240	Cost of purchased refuse removal (including hazardous waste) services ³	\$1,000.. 84
Value of primary products shipments made in other industries	\$1,000.. 13 072	Response coverage ratio ⁴	percent.. 64
Coverage ratio	percent.. 97		

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

²These items are collected in the ASM and estimated for the remaining establishments; therefore, the levels of estimation are higher than for other items in the table.

³Based on ASM sample data.

⁴A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those ASM establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

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

Table 4. Industry Statistics by Employment Size: 1997

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

Employment size class	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
315993, MEN'S & BOYS' NECKWEAR MFG												
All establishments	2	122	51	4 914	116 787	3 801	6 314	61 571	330 049	269 203	597 171	3 611
Establishments with 1 to 4 employees	8	36	—	77	1 932	67	93	1 041	4 628	3 669	8 314	44
Establishments with 5 to 9 employees	5	13	—	80	1 821	66	94	1 023	6 684	3 640	10 465	64
Establishments with 10 to 19 employees	2	22	—	304	6 959	225	349	3 608	28 955	15 342	44 803	100
Establishments with 20 to 49 employees	2	25	25	779	17 216	606	1 006	9 266	30 697	22 789	53 892	347
Establishments with 50 to 99 employees	3	12	12	778	16 412	576	924	9 036	38 303	31 520	69 096	364
Establishments with 100 to 249 employees	—	11	11	1 636	42 448	1 235	2 116	20 280	117 701	114 221	233 168	1 398
Establishments with 250 to 499 employees	9	2	2	D	D	D	D	D	D	D	D	D
Establishments with 500 to 999 employees	—	1	1	D	D	D	D	D	D	D	D	D
Establishments with 1,000 to 2,499 employees	—	—	—	—	—	—	—	—	—	—	—	—
Establishments with 2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—	—
Administrative records ²	9	41	—	188	3 996	158	212	2 157	10 752	8 145	18 939	96

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 industry or product class code	Industry or primary product class	All establishments	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
315993	Men's & boys' neckwear mfg	122	4 914	116 787	3 801	6 314	61 571	330 049	269 203	597 171	3 611

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]

NAICS product code	Product	1997				1992			
		Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments		Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)			Quantity	Value (\$1,000)
315993	Men's and boys' neckwear	N	X	X	537 312	N	X	X	543 645
3159930	Men's and boys' neckwear	N	X	X	537 312	N	X	X	543 645
31599301	Men's and boys' neckwear, made from woven fabrics, silk and polyester	N	X	X	497 390	N	X	X	N
3159930111	Neckties made from woven fabrics (including prints), all silk	59	X	S	440 175	53	X	N	335 655
3159930121	Neckties made from woven fabrics (including prints), all polyester	21	X	P9	809.0 57 215	39	X	N	73 092
31599302	Men's and boys' neckwear, all other except silk and polyester made from woven fabrics	N	X	X	20 609	N	X	X	N
3159930231	Neckties made from woven fabrics (including prints), all other fabrics (including blends)	11	X	2	705.3 10 375	27	X	N	48 219
3159930241	All other men's and boys' neckwear (including leather neckties and knit or woven mufflers and scarves)	5	X	3	375.5 10 234	9	X	N	8 560
3159930Y	Men's and boys' neckwear, nsk	N	X	X	19 313	N	X	X	N
3159930YWW	Men's and boys' neckwear, nsk, for non-administrative record establishments	N	X	X	974	N	X	X	66 969
3159930YWY	Men's and boys' neckwear, nsk, for administrative record establishments	N	X	X	18 339	N	X	X	11 150

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

@ Additional data are available for these codes at the aggregate U.S. level in the Current Industrial Report (CIR) series; see Appendix F for the CIR survey number and title.

\$ This product is primary to more than one industry; see Appendix F for a listing of the related product codes.

Note: For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: 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

[Not applicable for this report]

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 material code	Material consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
315993	MEN'S & BOYS' NECKWEAR MFG				
31321023	Broadwoven fabrics (piece goods)	X	153 166	X	150 039
31322103	Narrow fabrics (12 inches or less in width)	X	39 289	X	36 088
31324000	Knit fabrics	X	D	X	2 820
31311003	Yarn, all fibers	X	D	X	D
31611001	Finished leather	X	D	X	D
33999301	Buttons, zippers, and slide fasteners	X	583	X	D
00970099	All other materials and components, parts, containers, and supplies	X	11 659	X	18 864
00971000	Materials, ingredients, containers, and supplies, n.s.k.	X	11 732	X	31 495

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.

Appendix A.

Explanation of Terms

BEGINNING- AND END-OF-YEAR INVENTORIES

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

Inventory Data by Stage of Fabrication

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

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

COST OF MATERIALS

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

Included in this item are:

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

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

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

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 company-operated cafeterias, in-plant medical services, free parking lots, discounts on employee purchases, and uniforms and work clothing for employees.

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

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

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

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

NUMBER OF ESTABLISHMENTS AND COMPANIES

A separate report was required for each manufacturing establishment (plant) with one employee or more. An establishment is defined as a single physical location where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

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

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

PAYROLL

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

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

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

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 company-owned assets was to be reported as assets of the establishment at the end of the year.

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

RETIREMENTS OF DEPRECIABLE ASSETS

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

TOTAL CAPITAL EXPENDITURES (NEW AND USED)

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

Totals for expenditures include the costs of assets leased from nonmanufacturing concerns through capital leases. New facilities owned by the Federal Government but operated under contract by private companies and plant and equipment furnished to the manufacturer by communities and nonprofit organizations are excluded. Also excluded are expenditures for land and cost of maintenance and repairs charged as current operating expenses.

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

VALUE ADDED

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

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

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

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

VALUE OF SHIPMENTS

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

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

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

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

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

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

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

Duplication in Cost of Materials and Value of Shipment

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

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

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

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

Specialization and Coverage Ratios

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

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

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

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

Appendix B.

NAICS Codes, Titles, and Descriptions

315993 MEN'S AND BOYS' NECKWEAR MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing men's and boys' cut and sew neckties, scarves, and mufflers from purchased fabric, leather, or from combinations of leather and fabric. Men's and boys' neckwear jobbers, who perform entrepreneurial

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

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

2323 Men's and boys' neckwear

Appendix C.

Coverage and Methodology

MAIL/NONMAIL UNIVERSE

The manufacturing universe includes about 400,000 establishments. This number includes those industries in the North American Industry Classification System (NAICS) definition of manufacturing, but not those industries leaving the manufacturing sector in the classification change. The amounts of information requested from manufacturing establishments were dependent upon a number of factors. The more important considerations were the size of the company and whether it was included in the annual survey of manufactures (ASM). The methods of obtaining information for the various subsets of the universe to arrive at the aggregate figures shown in the publication are described below:

1. Small single-establishment companies not sent a report form.

Approximately 40 percent of the manufacturing establishments were small single-establishment companies that were excused from filing a census report. Selection of these establishments was based on two factors: annual payroll and our ability to assign the correct six-digit NAICS industry classification to the establishment. For each four-digit Standard Industrial Classification (SIC) industry code, an annual payroll cutoff was determined. These cutoffs were derived so that the establishments with payroll less than the cutoff were expected to account for no more than 3 percent of the value of shipments for the industry. Generally, all single-establishment companies with less than 5 employees were excused, while all establishments with more than 20 employees were mailed forms. Establishments below the cutoff that could not be directly assigned a six-digit NAICS code were mailed a classification report which requested information for assigning NAICS industry codes. Establishments below the cutoff that could be directly assigned a six-digit NAICS code were excused from filing any report. For below cutoff establishments, information on the physical location, payroll, and receipts was obtained from the administrative records of other Federal agencies under special arrangements that safeguarded their confidentiality.

Estimates of data for these small establishments were developed using industry averages in conjunction with the administrative information. The value of shipments and cost of materials were not distributed among specific products and materials for these

establishments but were included in the product and material “not specified by kind” (nsc) categories.

The industry classification codes included in the administrative-record files were assigned on the basis of brief descriptions of the general activity of the establishment. As a result, an indeterminate number of establishments were erroneously coded to a four-digit SIC industry and then erroneously re-coded to a six-digit NAICS industry. This was especially true whenever there was a relatively fine line of demarcation between industries or between manufacturing and nonmanufacturing activity.

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

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

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

2. Establishments sent a report form.

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

- a. ASM sample establishments.

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

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

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

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

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

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

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

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

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

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

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

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

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

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the manufacturing sector for 1997, there are 21 subsectors (three-digit NAICS), 86 industry groups (four-digit NAICS), 184 NAICS industries (five-digit NAICS) that are comparable with Canadian and Mexican classification, and 473 U.S. industries (six-digit NAICS). This represents an expansion of the four-digit SIC-based U.S. industries from 459 in 1987. Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they originate. In the new system, there are about 1,500 product classes (seven-digit codes), about 6,000 census products, and an additional 3,700 CIR products (ten-digit codes). The ten-digit products are considered the primary products of the industry with the same first six digits. These counts do not include the seven former manufacturing industries that are included in the 1997 Economic Census – Manufacturing.

For the 1997 Economic Census – Manufacturing, all establishments were classified in particular industries based on the products they produced. If an establishment made products of more than one industry, it was classified in the industry with the largest product value. For 1997, there were no “resistance rules” or “frozen industries.”

In ASM years, establishments included in the ASM sample with certainty weights are reclassified by industry only if the change in the primary activity from the prior year is significant or if the change has occurred for 2 successive years. This procedure prevents reclassification when there are minor shifts in product mix.

In ASM years, establishments included in the ASM sample with noncertainty weight are not shifted from one industry classification to another. They are retained in the industry where they were classified in the base census year. However, in the following census year, these ASM plants are allowed to shift from one industry to another.

The results of these rules covering the switching of plants from one industry classification to another are that some industries comprise different mixes of establishments in different survey years. Hence, comparisons between prior-year and current-year published totals, particularly at the six-digit NAICS level, should be viewed with caution. This is particularly true for the comparison between the data shown for a census year versus the data shown for the previous ASM year.

As previously noted, the small establishments that may have been misclassified by industry are usually administrative-record cases whose industry codes were assigned on the basis of incomplete descriptions of the general activity of the establishment. Such possible misclassifications have no significant effect on the statistics other than on the number of companies and establishments.

Establishments frequently make products classified both in their industry (primary products) and other industries (secondary products). Industry statistics (employment, payroll, value added by manufacture, value of shipments, etc.) reflect the activities of the establishments which may make both primary and secondary products. Product statistics, however, represent the output of all establishments without regard for the classification of the producing establishment. For this reason, when relating the industry statistics, especially the value of shipments, to the product statistics, the composition of the industry’s output should be considered.

The extent to which industry and product statistics may be matched with each other is measured by the primary product specialization ratio and the coverage ratio. The primary product specialization ratio is the proportion of industry shipments accounted for by the primary products of establishments classified in the industry. The coverage ratio is the proportion of product shipments accounted for by establishments classified in the industry.

ESTABLISHMENT BASIS OF REPORTING

The economic census – manufacturing is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each location or establishment. The ASM also is conducted on an establishment basis, but separate reports are filed for just those establishments selected in the sample. Companies engaged in distinctly different lines of activity at one location are requested to submit separate reports if the plant records permit such a separation and if the activities are substantial in size.

In 1997, as in earlier years, a minimum size limit was set for inclusion of establishments in the census. All establishments employing one person or more at any time during the census year are included. The same size limitation has applied since 1947 in censuses and annual surveys of manufactures. In the 1939 and earlier censuses, establishments with less than \$5,000 value of products were excluded. The change in the minimum size limit in 1947 does not appreciably affect the historical comparability of the census figures except for data on number of establishments for a few industries.

The 1997 Economic Census – Manufacturing excludes data for central administrative offices (CAOs). These would include separately operated administrative offices, warehouses, garages, and other auxiliary units that service manufacturing establishments of the same company. These data are published in a separate report series.

DESCRIPTION OF THE ASM SURVEY SAMPLE

The annual survey of manufactures (ASM) sample is drawn for the second survey year after a census. The most recent sample was drawn for the 1994 survey year based on the 1992 Census of Manufactures. This sample will be in place through the 1998 ASM.

In 1992, there were approximately 370,000 individual manufacturing establishments. For sample efficiency and cost considerations, the 1992 manufacturing population was partitioned into two components for developing estimates within the ASM; a mail stratum and a nonmail stratum.

Mail stratum. The mail stratum of the survey is comprised of larger single-location manufacturing companies and all manufacturing establishments of multiunit companies (companies that operate at more than one physical location). Approximately 230,000 of the 370,000 establishments in the 1992 census were assigned to the mail stratum. On an annual basis, the mail stratum is supplemented with larger, newly active single-location companies identified from a list provided by the Internal Revenue Service (IRS) and new manufacturing locations of multiunit companies identified from the Census Bureau's Company Organization Survey (COS).

For the 1994 survey, a new sample of approximately 58,000 individual establishments was selected from the mail stratum assembled from the 1992 census. Supplemental samples representing both 1993 and 1994 births (newly active establishments that were not included in the 1992 census) were also selected. Establishments selected for the sample are mailed an ASM survey questionnaire for each year through 1998.

The 1994-98 ASM sample design is similar to the one used since 1984. Companies in the 1992 Census of Manufactures with manufacturing shipments of at least \$500 million were defined as company certainties. For these large companies, each manufacturing establishment is included in the mail sample. For the 1994-98 sample, there are approximately 650 certainty companies collectively accounting for over 18,000 establishments.

For the remaining portion of the mail component of the survey, the establishment was defined as the sample unit. All establishments with 250 employees or more were defined as employment certainties. In addition, all establishments producing products in SIC 3571 (Electronic Computers) were defined as certainties. Across these three arbitrary certainty classes, there were approximately 25,000 establishments included in the sample with certainty. Collectively, these certainty establishments accounted for approximately 80 percent of the total value of shipments in the 1992 Census of Manufactures.

Smaller establishments in the remaining portion of the mail stratum were sampled with probabilities ranging from .02 to 1.00. The initial probabilities of selection assigned to these establishments were proportionate to a measure-of-size determined for each establishment. The measure-of-size was a function of the establishment's 1992 industry classification, its 1992 product class data, and the historical variability of the year-to-year estimates of the product class estimates. For each product class (1,755) and four-digit industry (459), a desired reliability

constraint was specified. Using a technique developed by Dr. James R. Chromy of the Research Triangle Institute, the initial establishment probabilities were optimized such that the expected sample satisfied all industry and product class reliability constraints while the sample size was minimized. This technique reduces the likelihood of selecting nonrepresentative samples for individual product classes or industries.

This method of assigning probabilities based on product class shipments is motivated by our primary desire to produce reliable estimates of both product class and industry shipments. The high correlation between shipments and employment, value-added, and other general statistics assures that these variables will also be well represented by the sample. The actual sample selection procedure uses an independent chance of selection method (Poisson sampling) which permits us to prevent small establishments from being selected in consecutive samples without introducing a bias into the survey estimates.

Nonmail component. The initial nonmail component of the survey was comprised of approximately 140,000 small, single-establishment companies that were tabulated as administrative records in the 1992 Census of Manufactures. The nonmail stratum is also supplemented annually using the list of newly active single-location companies provided by the Internal Revenue Service (IRS) and payroll cutoffs. Companies with payroll below the payroll cutoff are added to the nonmail stratum. For this portion of the population, sampling is not used. The data for this group are estimated based on selected information obtained annually from the administrative records of the IRS and Social Security Administration (SSA). This administrative information, which includes payroll, total employment, industry classification, and physical location, is obtained under conditions which safeguard the confidentiality of both tax and census records.

DESCRIPTION OF THE ASM ESTIMATING PROCEDURE

Most of the ASM estimates derived for the mail stratum are computed using a difference estimator. At the establishment level, there is a strong correlation between the current-year data values and the corresponding 1992 (base) data values. Therefore, within the mailed stratum, for each item at each level of aggregation, an estimate of the "difference" between the current year and the base year is computed from sample cases and added to the corresponding base-year values. For the 1993-1997 ASM estimates, the 1992 Census of Manufactures values serve as the base year. For the 1998 ASM, the base will be updated to be the 1997 Economic Census – Manufacturing.

Due to the positive year-to-year correlation, estimates derived using this methodology are generally more reliable than comparable estimates developed from the current sample data alone. Estimates for the capital expenditures variables are not generated using the difference

estimator because the year-to-year correlations are considerably weaker. The standard linear estimator is used for these variables.

For the nonmail stratum, estimates for payroll and employment are directly tabulated from the administrative-record data provided by IRS and SSA. Estimates of data other than payroll and employment are developed from industry averages. Although the nonmail stratum contains approximately 170,000 individual establishments in 1994, it accounts for less than 2 percent of the estimate for total value of shipments at the total manufacturing level.

Corresponding estimates for the mail and nonmail components are combined to produce the estimates included in this publication.

QUALIFICATIONS OF THE ASM DATA

The estimates developed from the sample are apt to differ somewhat from the results of a survey covering all companies in the sample lists but otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the ASM is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data for selected ASM statistics in this report. They are represented in the form of relative standard errors (the standard errors divided by the estimated values to which they refer).

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals (ranges that would include the comparable, complete-coverage value for specified percentages of all the possible samples).

The complete-coverage value would be included in the range:

From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.

From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.

From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference that the comparable, complete-survey result would be within the indicated ranges would be correct in approximately the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection, reporting, coding, transcription, imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables in this publication having an associated standard error exceeding 15 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

DATA FROM THE CURRENT INDUSTRIAL REPORTS (CIR)

The CIR program provides product statistics for selected manufacturing industries at the U.S. level annually and, in some cases, monthly and/or quarterly. When detail product data are collected in the CIR, they are not also collected in the census. However, the annual CIR data are included in the census Product Summary report.

The CIR program uses a unified data collection, processing, and publication system. The Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic

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

DUPLICATION IN COST OF MATERIALS AND VALUE OF SHIPMENTS

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

VALUE OF INDUSTRY SHIPMENTS COMPARED WITH VALUE OF PRODUCT SHIPMENTS

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

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

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

Not applicable for this report.

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

1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published
3151111 pt.....	22514	22514	315191W pt.....	22590 pt	22590 pt	315211WYWWY pt ...	2321902	2321902
3151111 pt.....	22525 pt	22525 pt	315191WYWW pt ...	2253000	2253000	315211WYWWY pt ...	2322002 pt	2322002 pt
3151111111	2251417	2251417	315191WYWW pt ...	2259000 pt	2259000 pt	315211WYWWY pt ...	2325002 pt	2325002 pt
3151111121	2252513	2252513	315191WYWWY pt ..	2253002	2253002	315211WYWWY pt ...	2325902	2325902
3151111131	2251413	2251413	315191WYWWY pt ...	2259002 pt	2259002 pt	315211WYWWY pt ...	2326002 pt	2326002 pt
3151111141	2251419	2251419				315211WYWWY pt ...	2326902	2326902
3151111191 pt.....	2251424 pt	2251415	3151921	22541	22541	315211WYWWY pt ...	2329002 pt	2329002 pt
3151111191 pt.....	2251424 pt	2251423	3151921110	2254111	2254111	315211WYWWY pt ...	2329902	2329902
3151111YWW pt	2251400	2251400	3151921120	2254113	2254113	315211WYWWY pt ...	2341002 pt	2341002 pt
3151111YVW pt	2252500 pt	2252500 pt	3151921YVW	2254100	2254100	315211WYWWY pt ...	2384002 pt	2384002 pt
			3151923	22544	22544	315211WYWWY pt ...	2385002 pt	2385002 pt
3151113	22516	22516	3151923110	2254411	2254411	315211WYWWY pt ...	2395002 pt	2395002 pt
3151113111	2251612	2251612	3151923120	2254413	2254413			
3151113221	2251614	2251614	3151923YVW	2254400	2254400	3152121	23319 pt	23319 pt
3151113231	2251616	2251616				3152121100	2331900	2331900
3151113341	2251615	2251615	3151927	22590 pt	22590 pt			
3151113351	2251617	2251617	3151927110	2259030	2259030 pt	3152123 pt.....	23359 pt	23359 pt
3151113391	2251620	2251619	3151927120	2259040	2259040 pt	3152123 pt.....	23619 pt	23619 pt
3151113YVW	2251600	2251600	3151927YVW	2259000 pt	2259098 pt	3152123100 pt	2335900	2335900
						3152123100 pt	2361900	2361900
3151115	22518	22518	315192W pt.....	22540	22540	3152125	23379 pt	23379 pt
3151115121	2251814	2251814	315192W pt.....	22590 pt	22590 pt	3152125100	2337900	2337900
3151115131	2251817	2251817	315192WYVW pt	2254000	2254000			
3151115YVW	2251800	2251800	315192WYVW pt	2259000 pt	2259000 pt	3152127 pt.....	23399 pt	23399 pt
			315192WYVW pt ...	2254002	2254002	3152127 pt.....	23699 pt	23699 pt
315111W pt.....	22510	22510	315192WYVW pt ...	2259002 pt	2259002 pt	3152127100 pt	2339900	2339900
315111W pt.....	22520 pt	22520 pt	3152111	23119 pt	23119 pt	3152127100 pt	2369900	2369900
315111WYVW pt.....	2251000	2251000	3152111100	2311900	2311900			
315111WYVW pt.....	2252000 pt	2252000 pt				3152129	23419 pt	23419 pt
315111WYVW pt	2251002	2251002	31521113	23219 pt	23219 pt	3152129100 pt	2341900 pt	2341900 pt
315111WYVW pt ...	2252002 pt	2252002 pt	31521113100	2321900	2321900	3152129100 pt	2341900 pt	2341900 pt
3151191	22522	22522	3152115 pt.....	23229	23229	315212B	23429	23429
3151191111	2252223	2252223				315212B100	2342900	2342900
3151191221	2252225	2252225	3152115 pt	23419 pt	23419 pt			
3151191331	2252233	2252233	3152115100 pt	2322900	2322900	315212D	23849 pt	93000 pt
3151191441	2252235	2252235	3152115100 pt	2341901	2341900 pt	315212D100 pt	2384995	9300000 pt
3151191551	2252243	2252243	3152115100 pt	2341900 pt	2341900 pt	315212D100 pt	2384900 pt	9300000 pt
3151191561	2252245	2252245						
3151191591	2252287	2252287	3152117	23259 pt	23259 pt	315212F	23859 pt	23859 pt
3151191YVW	2252200	2252200	3152117100	2325900	2325900	315212F100 pt	2385920	2385900 pt
						315212F100 pt	2385900 pt	2385900 pt
3151193	22525 pt	22525 pt	3152119	23269 pt	23269 pt			
3151193111	2252516	2252515	3152119100	2326900	2326900	315212H	23959 pt	23958 pt
3151193121	2252501	2252501				315212H100 pt	2395900 pt	2395800 pt
3151193131	2252503	2252503	315211B	23299 pt	23299 pt	315212H100 pt	2395994	2395833
3151193241	2252521	2252521	315211B100	2329900	2329900			
3151193251	2252527	2252527				315212J	23899	93000 pt
3151193261	2252533	2252531	315211D	23849 pt	93000 pt	315212J100 pt	2389993	9300000 pt
3151193371	2252551	2252551	315211D100 pt	2384994	9300000 pt	315212J100 pt	2389900	9300000 pt
3151193381	2252557	2252557	315211D100 pt	2384900 pt	9300000 pt			
3151193391	2252561	2252561	315211F	23859 pt	23859 pt	315212W pt.....	23310 pt	23310 pt
31511933B1	2252588	2252581	315211F100 pt	2385910	2385900 pt	315212W pt.....	23319 pt	23319 pt
3151193YVW	2252500 pt	2252500 pt	315211F100 pt	2385900 pt	2385900 pt			
						315212W pt.....	23350 pt	23350 pt
3151195	22526	22526	315211H	23959 pt	23958 pt	315212W pt.....	23359 pt	23359 pt
3151195111	2252625	2252625	315211H100 pt	2395900 pt	2395800 pt	315212W pt.....	23370 pt	23370 pt
3151195121	2252642	2252642	315211H100 pt	2395993	2395811	315212W pt.....	23379 pt	23379 pt
3151195131	2252651	2252651				315212W pt.....	23390 pt	23390 pt
3151195YVW	2252600	2252600	315211W pt.....	23110 pt	23110 pt	315212W pt.....	23399 pt	23399 pt
			315211W pt.....	23119 pt	23119 pt	315212W pt.....	23410 pt	23410 pt
315119W	22520 pt	22520 pt	315211W pt.....	23210 pt	23210 pt	315212W pt.....	23419 pt	23419 pt
315119WYVW	2252000 pt	2252000 pt	315211W pt.....	23219 pt	23219 pt	315212W pt.....	23420 pt	23420 pt
315119WYVW	2252002 pt	2252002 pt				315212W pt.....	23420 pt	23420 pt
3151911	22534	22534	315211W pt.....	23220 pt	23220 pt	315212W pt.....	23420 pt	23420 pt
3151911100	2253400	2253400	315211W pt.....	23250 pt	23250 pt	315212W pt.....	23420 pt	23420 pt
						315212W pt.....	23420 pt	23420 pt
3151913	22535	22535	315211W pt.....	23259 pt	23259 pt	315212W pt.....	23420 pt	23420 pt
3151913100	2253500	2253500	315211W pt.....	23260 pt	23260 pt	315212W pt.....	23420 pt	23420 pt
						315212W pt.....	23420 pt	23420 pt
3151915	22536	22536	315211W pt.....	23269 pt	23269 pt	315212W pt.....	23420 pt	23420 pt
3151915100	2253600	2253600	315211W pt.....	23290 pt	23290 pt	315212W pt.....	23420 pt	23420 pt
						315212W pt.....	23420 pt	23420 pt
3151917	2253A	2253A	315211W pt.....	23299 pt	23299 pt	315212W pt.....	23420 pt	23420 pt
3151917100	2253A00	2253A00	315211W pt.....	23310 pt	23310 pt	315212W pt.....	23420 pt	23420 pt
						315212W pt.....	23420 pt	23420 pt
3151919	2253B	2253B	315211W pt.....	23319 pt	23319 pt	315212W pt.....	23420 pt	23420 pt
3151919100	2253B00	2253B00	315211W pt.....	23320 pt	23320 pt	315212W pt.....	23420 pt	23420 pt
						315212W pt.....	23420 pt	23420 pt
315191A	2253C	2253C	315211W pt.....	23340 pt	23340 pt	315212W pt.....	23420 pt	23420 pt
315191A100	2253C00	2253C00	315211W pt.....	23340 pt	23340 pt	315212W pt.....	23420 pt	23420 pt
						315212W pt.....	23420 pt	23420 pt
315191C	2253D	2253D	315211W pt.....	23350 pt	23350 pt	315212W pt.....	23420 pt	23420 pt
315191C110	2253D01	2253D01	315211WYVW pt	23350 pt	23350 pt	315212WYVW pt	2331000 pt	2331000 pt
315191C120	2253D05	2253D05	315211WYVW pt	2331000 pt	2331000 pt	315212WYVW pt	2335000 pt	2335000 pt
315191C130	2253D09	2253D09	315211WYVW pt	2322000 pt	2322000 pt	315212WYVW pt	2337000 pt	2337000 pt
315191CYVW	2253D00	2253D00	315211WYVW pt	2325000 pt	2325000 pt	315212WYVW pt	2339000 pt	2339000 pt
			315211WYVW pt	2326000 pt	2326000 pt	315212WYVW pt	2341000 pt	2341000 pt
315191E	2253E	2253E	315211WYVW pt	2329000 pt	2329000 pt	315212WYVW pt	2342000 pt	2342000 pt
315191E100	2253E00	2253E00	315211WYVW pt	2331000 pt	2331000 pt	315212WYVW pt	2342000 pt	2342000 pt
315191EYVW	2253E02	2253E02	315211WYVW pt	2334000 pt	2334000 pt	315212WYVW pt	2342000 pt	2342000 pt
			315211WYVW pt	2335000 pt	2335000 pt	315212WYVW pt	2342000 pt	2342000 pt
315191G	22590 pt	22590 pt	315211WYVW pt	2335000 pt	2335000 pt	315212WYVW pt	2342000 pt	2342000 pt
315191G100	2259020	2259020	315211WYVW pt	2311002 pt	2311002 pt	315212WYVW pt	2389000 pt	2389000 pt
			315211WYVW pt	2311902	2311902	315212WYVW pt	2395000 pt	2395000 pt
315191W pt.....	22530	22530	315211WYVW pt	2321002 pt	2321002 pt	315212WYVW pt	2331002 pt	2331002 pt
						315212WYVW pt	2331902	2331902

1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published
315212WYWW pt ...	2335002 pt	2335002 pt	315224W pt	23250 pt	23250 pt	3152330 pt.....	23353	23353
315212WYWW pt ...	2335902 pt	2335902 pt	315224W pt	23690 pt	23690 pt	3152330 pt.....	23610 pt	23610 pt
315212WYWW pt ...	2337002 pt	2337002 pt	315224WYWW pt	2325000 pt	2325000 pt	3152330 pt.....	23615 pt	23615 pt
315212WYWW pt ...	2337902 pt	2337902 pt	315224WYWW pt	2369000 pt	2369000 pt	3152330010	2335300 pt	2335300 pt
315212WYWW pt ...	2339002 pt	2339002 pt	315224WYWW pt	2325002 pt	2325002 pt	3152330020	2361501	2361500 pt
315212WYWW pt ...	2339902 pt	2339902 pt	315224WYWW pt	2369002 pt	2369002 pt	3152330YWW pt	2335000 pt	2335000 pt
315212WYWW pt ...	2341002 pt	2341002 pt	3152251	23261	23261	3152330YWW pt	2335300 pt	2335300 pt
315212WYWW pt ...	2341902 pt	2341902 pt	3152251000	2326100	2326100	3152330YWW pt	2361000 pt	2361000 pt
315212WYWW pt ...	2342002 pt	2342002 pt	3152253	23262	23262	3152330YWW pt	2361500 pt	2361500 pt
315212WYWW pt ...	2361002 pt	2361002 pt	3152253000	2326200	2326200	3152330YWW pt	2335002 pt	2335002 pt
315212WYWW pt ...	2361902	2361902	315225W	23260 pt	23260 pt	3152330YWW pt	2361002 pt	2361002 pt
315212WYWW pt ...	2369002 pt	2369002 pt	315225WYWW	2326000 pt	2326000 pt	3152341 pt.....	23371	23371
315212WYWW pt ...	2369902	2369902	315225WYWW	2326002 pt	2326002 pt	3152341010	2337100 pt	2337100 pt
315212WYWW pt ...	2384002 pt	2384002 pt	315225WYWW	2326002 pt	2326002 pt	3152341020	2369201	2369200 pt
315212WYWW pt ...	2385002 pt	2385002 pt	3152281	23291	23291	3152341YWW pt	2337100 pt	2337100 pt
315212WYWW pt ...	2389002 pt	2389002 pt	3152281000	2329100	2329100	3152341YWW pt	2369200 pt	2369200 pt
315212WYWW pt ...	2395002 pt	2395002 pt	3152283 pt.....	23293 pt	23293 pt	3152343	23372	23372
3152211 pt.....	23221	23221	3152283010	23693 pt	23693 pt	3152343000	2337200	2337200
3152211 pt.....	23412 pt	23412 pt	3152283010	2329310	2329310	3152345 pt.....	23374	23374
3152211010	2322100 pt	2322100 pt	3152283020	2369395	2369395 pt	3152345 pt.....	23693 pt	23693 pt
3152211020	2341203	2341200 pt	3152283130	2329360	2329360	3152345010	2337410	2337410
3152211YVW pt	2322100 pt	2322100 pt	3152283140	2369372	2369370 pt	3152345030	2369394	2369393 pt
3152211YVW pt	2341200 pt	2341200 pt	3152283150	2329380	2329380	3152345120	2337420	2337420
3152213 pt.....	23222	23222	3152283YVW pt	2329300	2329300	3152345YVW pt	2337400	2337400
3152213 pt.....	23413 pt	23413 pt	3152283YVW pt	2369300 pt	2369300 pt	3152345YVW pt	2369300 pt	2369300 pt
3152213010	2322200 pt	2322200 pt	3152285	23851 pt	23851 pt	3152347	23851 pt	23851 pt
3152213020	2341303	2341300 pt	3152285100	2385193	2385198 pt	3152347000	2385142	2385140 pt
3152213YVW pt	2322200 pt	2322200 pt	315228W pt	23290 pt	23290 pt	315234W pt.....	23370 pt	23370 pt
3152213YVW pt	2341300 pt	2341300 pt	315228W pt	23690 pt	23690 pt	315234W pt.....	23690 pt	23690 pt
3152215 pt.....	23693	23693	315228W pt	23850 pt	23850 pt	315234W pt.....	23850 pt	23850 pt
3152215 pt.....	23840 pt	23840 pt	315228WYWW pt	2329000 pt	2329000 pt	315234W pt.....	23850 pt	23850 pt
3152215000 pt	2369382	2369380 pt	315228WYWW pt	2369000 pt	2369000 pt	315234WYVW pt	2337000 pt	2337000 pt
3152215000 pt	2384011	2384011	315228WYWW pt	2385000 pt	2385000 pt	315234WYVW pt	2369000 pt	2369000 pt
315221W pt.....	23220 pt	23220 pt	315228WYWW pt	2329002 pt	2329002 pt	315234WYVW pt	2385000 pt	2385000 pt
315221W pt.....	23410 pt	23410 pt	315228WYWW pt	2369002 pt	2369002 pt	315234WYVW pt	2337002 pt	2337002 pt
315221W pt.....	23690 pt	23690 pt	315228WYWW pt	2385002 pt	2385002 pt	315234WYVW pt	2369002 pt	2369002 pt
315221W pt.....	23840 pt	23840 pt	3152311	23412 pt	23412 pt	315234WYVW pt	2385002 pt	2385002 pt
315221WYVW pt	2322000 pt	2322000 pt	3152311010	2341201	2341200 pt	3152391	23392	23392
315221WYVW pt	2341000 pt	2341000 pt	3152311020	2341202	2341200 pt	3152391000	2339200	2339200
315221WYVW pt	2369000 pt	2369000 pt	3152311YVW	2341200 pt	2341200 pt	3152393	23394	23394
315221WYVW pt	2384000 pt	2384000 pt	3152313	23413 pt	23413 pt	3152393000	2339400	2339400
315221WYVW pt	2322002 pt	2322002 pt	3152313010	2341301	2341300 pt	3152395 pt.....	23395	23395
315221WYVW pt	2341002 pt	2341002 pt	3152313020	2341302	2341300 pt	3152395 pt.....	23693 pt	23693 pt
315221WYVW pt	2369002 pt	2369002 pt	3152313YVW	2341300 pt	2341300 pt	3152395010	2339500 pt	2339500 pt
315221WYVW pt	2384002 pt	2384002 pt	3152315	23421	2342100	3152395020	2369341	2369340 pt
3152221 pt.....	23115	23115	3152315000	2342100	2342100	3152395YVW pt	2339500 pt	2339500 pt
3152221 pt.....	23692 pt	23692 pt	3152317 pt.....	23422	23422	3152395YVW pt	2369300 pt	2369300 pt
3152221010	2311500	2311500	3152317 pt.....	23890 pt	23890 pt	3152397 pt.....	23397 pt	23397 pt
3152221020	2369202	2369200 pt	315231710	2342210	2342210	3152397 pt.....	23693 pt	23693 pt
3152221YVW	2369200 pt	2369200 pt	3152317121	2342281	2342281	3152397020	2339760	2339760
3152223	23162	23116	3152317131	2389035	2389031 pt	3152397110	2339730	2339730
3152223000	2311600	2311600	3152317151	2389071	2389071	3152397130	2339780	2339780
3152225	23117	23117	3152317YVW pt	2342200	2342200	3152397140	2369371	2369370 pt
3152225000	2311700	2311700	3152317YVW pt	2389000 pt	2389000 pt	3152397YVW pt	2339700	2339700
3152227	23851 pt	23851 pt	3152319	23693 pt	23693 pt	3152397YVW pt	2369300 pt	2369300 pt
3152227000 pt	2385100 pt	2385100 pt	3152319000 pt	23840 pt	23840 pt	3152399	23851 pt	23851 pt
3152227000 pt	2385141	2385140 pt	3152319000 pt	2384021	2384021	3152399100	2385194	2385198 pt
315222W pt.....	23110 pt	23110 pt	315231W pt.....	23410 pt	23410 pt	315239W pt.....	23390 pt	23390 pt
315222W pt.....	23690 pt	23690 pt	315231W pt.....	23420 pt	23420 pt	315239W pt.....	23690 pt	23690 pt
315222W pt.....	23850 pt	23850 pt	315231W pt.....	23690 pt	23690 pt	315239W pt.....	23850 pt	23850 pt
315222WYVW pt	2311000 pt	2311000 pt	315231W pt.....	23840 pt	23840 pt	315239WYVW pt	2339000 pt	2339000 pt
315222WYVW pt	2369000 pt	2369000 pt	315231W pt.....	23890 pt	23890 pt	315239WYVW pt	2369000 pt	2369000 pt
315222WYVW pt	2385000 pt	2385000 pt	315231WYVW pt	2341000 pt	2341000 pt	315239WYVW pt	2385000 pt	2385000 pt
315222WYVW pt	2311002 pt	2311002 pt	315231WYVW pt	2342000 pt	2342000 pt	315239WYVW pt	2339002 pt	2339002 pt
315222WYVW pt	2369002 pt	2369002 pt	315231WYVW pt	2369000 pt	2369000 pt	315239WYVW pt	2369002 pt	2369002 pt
315222WYVW pt	2385002 pt	2385002 pt	315231WYVW pt	2384000 pt	2384000 pt	315239WYVW pt	2385002 pt	2385002 pt
3152231 pt.....	23213	23213	315231WYVW pt	2389000 pt	2389000 pt	3152910 pt.....	23410 pt	23410 pt
3152231 pt.....	23613 pt	23613 pt	315231WYVW pt	2341002 pt	2341002 pt	3152910 pt.....	23412 pt	23412 pt
3152231010	2321300 pt	2321300 pt	315231WYVW pt	2341002 pt	2341002 pt	3152910 pt.....	23413 pt	23413 pt
3152231020	2361302	2361300 pt	315231WYVW pt	2342002 pt	2342002 pt	3152910 pt.....	23610 pt	23610 pt
3152231YVW pt	2321300 pt	2321300 pt	315231WYVW pt	2369002 pt	2369002 pt	3152910 pt.....	23613 pt	23613 pt
3152231YVW pt	2361300 pt	2361300 pt	315231WYVW pt	2384002 pt	2384002 pt	3152910 pt.....	23614 pt	23614 pt
3152233 pt.....	23216	23216	315231WYVW pt	2389002 pt	2389002 pt	3152910 pt.....	23615 pt	23615 pt
3152233 pt.....	23614 pt	23614 pt	3152321 pt.....	23313	23313	3152910 pt.....	23692 pt	23692 pt
3152233010	2321600 pt	2321600 pt	3152321 pt.....	23613 pt	23613 pt	3152910 pt.....	23693 pt	23693 pt
3152233020	2361402	2361400 pt	3152321010	2331300	2331300	3152910 pt.....	23850 pt	23850 pt
3152233YVW pt	2321600 pt	2321600 pt	3152321120	2361301	2361300 pt	3152910 pt.....	23851 pt	23851 pt
3152233YVW pt	2361400 pt	2361400 pt	3152321YVW	2361300 pt	2361300 pt	3152910 pt.....	2385198	2385198 pt
315223W pt.....	23210 pt	23210 pt	3152323 pt.....	23314	23314	3152910 pt.....	23390 pt	23390 pt
315223W pt.....	23610 pt	23610 pt	3152323 pt.....	23614 pt	23614 pt	3152910 pt.....	23690 pt	23690 pt
315223WYVW pt	2321000 pt	2321000 pt	3152323010	2331400 pt	2331400 pt	3152910 pt.....	23692 pt	23692 pt
315223WYVW pt	2361000 pt	2361000 pt	3152323020	2361401	2361400 pt	3152910 pt.....	23693 pt	23693 pt
315223WYVW pt	2321002 pt	2321002 pt	3152323YVW pt	2331400 pt	2331400 pt	3152910 pt.....	23699 pt	23699 pt
315223WYVW pt	2361002 pt	2361002 pt	3152323YVW pt	2361400 pt	2361400 pt	3152910 pt.....	23699 pt	23699 pt
3152241 pt.....	23251	23251	315232W pt.....	23310 pt	23310 pt	3152910 pt.....	23851 pt	23851 pt
3152241 pt.....	23693 pt	23693 pt	315232W pt.....	23610 pt	23610 pt	31529101010	2341204	2341200 pt
3152241010	2325100 pt	2325100 pt	315232WYVW pt	2331000 pt	2331000 pt	3152910120	2341304	2341300 pt
315224102								

1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published	1997 published	1997 collected	1992 published
3152910YVW pt ...	2341200 pt	2341200 pt	3159911	23531	23531	3159995	23871	23871
3152910YVW pt ...	2341300 pt	2341300 pt	3159911111	2353101	2353101	3159995111	2387113	2387113
3152910YVW pt ...	2361000 pt	2361000 pt	3159911121	2353103	2353103	3159995121	2387115	2387115
3152910YVW pt ...	2361300 pt	2361300 pt	3159911131	2353105	2353105	3159995131	2387153	2387153
3152910YVW pt ...	2361400 pt	2361400 pt	3159911141	2353109	2353109	3159995141	2387155	2387155
3152910YVW pt ...	2361500 pt	2361500 pt	3159911YVW	2353100	2353100	3159995YVW	2387100	2387100
3152910YVW pt ...	2369000 pt	2369000 pt						
3152910YVW pt ...	2369200 pt	2369200 pt	3159913	23532	23532	3159997	23872	23872
3152910YVW pt ...	2369300 pt	2369300 pt	3159913111	2353201	2353201	3159997111	2387213	2387213
3152910YVW pt ...	2385000 pt	2385000 pt	3159913121	2353203	2353203	3159997121	2387215	2387215
			3159913131	2353205	2353205	3159997131	2387253	2387253
			3159913141	2353209	2353209	3159997141	2387255	2387255
			3159913YVW	2353200	2353200	3159997YVW	2387200	2387200
3152910YVW pt ...	2385100 pt	2385100 pt	3159915	23533	23533	315999A	23890 pt	23890 pt
3152910YVW pt ...	2361002 pt	2361002 pt	3159915111	2353301	2353301	315999A111	2389045	2389031 pt
3152910YVW pt ...	2369002 pt	2369002 pt	3159915121	2353303	2353303	315999A221	2389053	2389053
3152910YVW pt ...	2385002 pt	2385002 pt	3159915131	2353309	2353309	315999A231	2389057	2389057
			3159915YVW	2353300	2353300	315999AYVW	2389000 pt	2389000 pt
						315999C pt	23961	23961
3152921	23710 pt	23710 pt	315991W	23530	23530	315999C111 pt	2396111	2396111
3152921100	2371000 pt	2371000 pt	315991WYVW	2353000	2353000	315999C121	2396153	2396153
			315991WYVW	2353002	2353002	315999CYVW pt	2396100	2396100
						315999CYVW pt	2399000 pt	2399000 pt
3152925	23860 pt	23860 pt	3159921	23813	23813			
3152925111	2386015	2386015	3159921000	2381300	2381300	315999E	23963 pt	23963 pt
3152925221	2386053	2386053				315999E100	2396313	2396313
3152925231	2386098	2386098	3159923	23814	23814			
3152925YVW	2386000 pt	2386000 pt	3159923000	2381400	2381400	315999G	56990 pt	56990 pt
						315999G100 pt	5699010	5699000 pt
						315999G100 pt	5699020	5699000 pt
315292W pt	23710 pt	23710 pt	3159925	31510 pt	31510 pt	315999W pt	23390 pt	23390 pt
			3159925000	3151000 pt	3151000 pt	315999W pt	23850 pt	23850 pt
						315999W pt	23870	23870
315292W pt	23860 pt	23860 pt	315992W pt	23810	23810			
315292WYVW pt ...	2371000 pt	2371000 pt	315992W pt	31510 pt	31510 pt	315999W pt	23890 pt	23890 pt
315292WYVW pt ...	2386000 pt	2386000 pt	315992WYVW pt ...	2381000	2381000	315999W pt	23960 pt	23960 pt
315292WYVW pt ...	2371002	2371002	315992WYVW pt ...	3151000 pt	3151000 pt			
315292WYVW pt ...	2386002	2386002	315992WYVW pt ...	2381002	2381002	315999W pt	23990 pt	23990 pt
			3159925000	3151002	3151002			
3152991	23293 pt	23293 pt	3159930	23230	23230	315999W pt	56990 pt	56990 pt
3152991100	2329330	2329330	3159930111	2323021	2323021	315999WYVW pt ...	2339000 pt	2339000 pt
			3159930121	2323027	2323027	315999WYVW pt ...	2385000 pt	2385000 pt
3152993	23397 pt	23397 pt	3159930231	2323028	2323028	315999WYVW pt ...	2387000	2387000
3152993100	2339720	2339720	3159930241	2323049	2323049	315999WYVW pt ...	2389000 pt	2389000 pt
			3159930YVW	2323000	2323000	315999WYVW pt ...	2396000 pt	2396000 pt
3152995	23890 pt	23890 pt	3159930YVW	2323002	2323002	315999WYVW pt ...	2399000 pt	2399000 pt
3152995111	2389081	2389081				315999WYVW pt ...	5699000	5699000 pt
3152995121	2389091	2389091	3159991	23397 pt	23397 pt	315999WYVW pt ...	2339002 pt	2339002 pt
3152995131	2389098	2389098	3159991100	2339770	2339770	315999WYVW pt ...	2385002 pt	2385002 pt
3152995YVW	2389000 pt	2389000 pt				315999WYVW pt ...	2387002	2387002
						315999WYVW pt ...	2389002 pt	2389002 pt
315299W pt	23290 pt	23290 pt				315999WYVW pt ...	2396002 pt	2396002 pt
						315999WYVW pt ...	2399002 pt	2399002 pt
315299W pt	23390 pt	23390 pt				315999WYVW pt ...	5699002	5699000 pt
315299W pt	23890 pt	23890 pt	3159993	23851 pt	23851 pt			
315299WYVW pt ...	2329000 pt	2329000 pt	3159993100	2385190	2385198 pt			
315299WYVW pt ...	2339000 pt	2339000 pt						
315299WYVW pt ...	2389000 pt	2389000 pt						
315299WYVW pt ...	2329002 pt	2329002 pt						
315299WYVW pt ...	2339002 pt	2339002 pt						
315299WYVW pt ...	2389002 pt	2389002 pt						

