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INDUSTRY SERIES

AP-42 Section 10.6.1
Reference
Report Sect. 2
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Wooden Containers
and Miscellaneous
Wood Products

Industries 2441, 2448, 2449, 2491, 2493,
and 2499



1987

Census of Manufactures

MC87-I-24C

INDUSTRY SERIES

Wooden Containers and Miscellaneous Wood Products

Industries 2441, 2448, 2449, 2491, 2493,
and 2499

Issued May 1990



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INTRODUCTION

PURPOSE AND USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source of facts about the structure and functioning of the Nation's economy. They provide essential information for government, business, industry, and the general public.

Economic censuses furnish an important part of the framework for such composite measures as the gross national product, input-output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.

Policy-making agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

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, and 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.

AUTHORITY AND SCOPE

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic censuses every 5 years, covering years ending in 2 and 7. The 1987 Economic Censuses consist of the

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1987 Census of Agriculture and 1987 Census of Governments are conducted separately.) The next economic censuses are scheduled to be taken in 1993 covering the year 1992.

AVAILABILITY OF THE DATA

The results of each of the economic censuses are available in printed reports, for sale by the U.S. Government Printing Office, and on microfiche, computer tape, compact discs with read-only memory, and flexible diskettes, for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Census Bureau, Washington, DC 20233. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State Data Centers in every State and Business and Industry Data Centers in many States also supply economic census statistics.

WHAT'S NEW IN 1987

Several changes have taken place for the 1987 censuses. Data will be reported on the basis of the newly revised Standard Industrial Classification (SIC) system with selected reports including "bridge tables," linking the old and new classification systems. A new set of metropolitan areas has been adopted, and more detailed information will be available for businesses with no paid employees. For additional information on these changes, review the subsequent text.

HISTORICAL INFORMATION

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

The economic censuses trace their beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial

activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 manufactures census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade, and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 economic censuses were the first to be fully integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were the first censuses to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records have also been used to provide basic statistics as well for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic censuses, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The Census of Construction Industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The Census of Transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation. The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic censuses in 1972 along with the Survey of Women-Owned Businesses.

Economic censuses have also been taken in Puerto Rico since 1909, in the Virgin Islands and Guam since 1958, and in the Northern Mariana Islands since 1982.

Statistical reports from the 1982 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 data published since 1967 are still available for sale on microfiche from the Census Bureau.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

While the censuses provide complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, the results of which appear in publication series such as *Current Business Reports* (retail and wholesale trade and service industries), the *Annual Survey of Manufactures*, *Current Industrial Reports*, and the *Quarterly Financial Report*. Most of these surveys, while providing more frequent

observations, yield less kind-of-business and geographic detail than the censuses. The *County Business Patterns* program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

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 1987 Economic Censuses and Related Statistics*. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1987 Economic Censuses*. Contact Customer Services for information on availability.

CENSUS OF MANUFACTURES

General

This report, from the 1987 Census of Manufactures, is one of a series of 83 industry reports, each of which provides statistics for individual industries or groups of related industries. Additional separate reports will be issued for each State and the District of Columbia and for special subjects such as type of organization, distribution of sales by class of customer, concentration ratios and water use in manufacturing.

The industry reports include such statistics as number of establishments, employment, payroll, value added by manufacture, cost of materials consumed, capital expenditures, product shipments, etc.

State reports present similar statistics for each State and its important metropolitan statistical areas (MSA's), counties, and places. Selected statistical totals for "all manufacturing" have been shown in the State reports for MSA's with 250 employees or more and for counties and places with 450 employees or more.

The *General Summary* report will contain industry, product class, and geographic area statistics summarized in one report. The introduction to the *General Summary* discusses, at greater length, many of the subjects described in this introduction. For example, the *General Summary* text will discuss the relationship of value added by manufacture to National income by industry of origin, the changes in statistical concepts over the history of the censuses, and the valuation problems arising from intracompany transfers between manufacturing plants of a company and between manufacturing plants and sales offices and sales branches of a company.

Scope of Census and Definition of Manufacturing

The 1987 Census of Manufactures covers all establishments with one paid employee or more primarily engaged in manufacturing as defined in the *1987 Standard Industrial*

Classification (SIC) Manual¹. This is the system of industrial classification developed by experts on classification in Government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of Management and Budget. This classification system is used by Government agencies as well as many organizations outside the Government.

The SIC Manual defines manufacturing as the mechanical or chemical transformation of substances or materials into new products. The assembly of component parts of products also is considered to be manufacturing if the resulting product is neither a structure nor other fixed improvement. These activities are usually carried on in plants, factories, or mills that characteristically use power-driven machines and materials-handling equipment.

Manufacturing production is usually carried on for the wholesale market, for transfers to other plants of the same company, or to the order of industrial users rather than for direct sale to the household consumer. Some manufacturers in a few industries sell chiefly at retail to household consumers through the mail, through house-to-house routes, or through salespersons. Some activities of a service nature (enameling, engraving, etc.) are included in manufacturing when they are performed primarily for trade. They are considered nonmanufacturing when they are performed primarily to the order of the household consumer.

Relationship Between Annual Survey of Manufactures and Census of Manufactures

The Bureau of the Census conducts the annual survey of manufactures (ASM) in each of the 4 years between the censuses of manufactures. The ASM is a probability-based sample of approximately 56,000 establishments and collects the same industry statistics (employment, payroll, value of shipments, etc.) as the census of manufactures. In addition to collecting the information normally requested on the census form, the establishments in the ASM sample are requested to supply information on assets, capital expenditures, retirements, depreciation, rental payments, supplemental labor costs, costs of purchased services, and foreign content of materials consumed. Except for supplemental labor costs, the extra ASM items are collected only in census years.

Establishment Basis of Reporting

The census of manufactures is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each location. 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 1987, 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. This report excludes information for separately operated administrative offices, warehouses, garages, and other auxiliary units that service manufacturing establishments of the same company (see Auxiliaries).

Manufacturing Universe and Census Report Forms

The 1987 Census of Manufactures universe includes approximately 350,000 establishments. 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. 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

In the 1987 Census of Manufactures, approximately 150,000 small single-establishment companies were excused from filing reports. Selection of these small establishments was done on an industry-by-industry basis and was based on annual payroll and total shipments data as well as on the industry classification codes contained in the administrative records of Federal agencies. The cutoffs were selected so that these administrative-records cases would account for no more than 3 percent of the value of shipments for all manufacturing. Generally, all single-establishment companies with less than five employees were excused, while all establishments with more than 20 employees were mailed forms.

Information on the physical location of the establishment, as well as information on payrolls, receipts (shipments), and industry classification, was obtained from the administrative records of other Federal agencies under special arrangements, which 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

¹Standard Industrial Classification Manual: 1987: For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, Stock No. 041-001-00314-2.

were not distributed among specific products and materials for these establishments but were included in the product and material "not specified by kind" (n.s.k.) categories.

The industry classification codes included in the administrative-records 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 at the four-digit SIC level. This was especially true whenever there was a relatively fine line of demarcation between industries or between manufacturing and nonmanufacturing activity.

Sometimes these administrative-record cases were only given a two- or three-digit SIC group. For the 1987 Census of Manufactures, 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 four-digit SIC level. Establishments that did not return the classification form were coded later to those four-digit SIC industries identified as "not elsewhere classified" (n.e.c.) within the given two- or three-digit industry groups.

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 200,000 establishments covered in the mail canvass were divided into three groups:

- a. **ASM sample establishments**—This group consisted of approximately 56,000 establishments covering 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 (see appendix, Annual Survey of Manufactures).

In a census of manufactures 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 information on assets, capital expenditures, retirements, depreciation, rental payments, supplemental labor costs, and costs of purchased services. See appendix A, section 2, for an explanation of these items.

The census part of the report form is one of approximately 200 versions containing product, material, and special inquiries. The diversity of manufacturing activities necessitated the use of these many forms to canvass the 459 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 be performing. Respondents were requested to identify the products, the value of each product, and, in a large number of 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 material not identified on the form.

Finally, 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 84,000 establishments were included in this group. A variable cutoff, based on administrative-records payroll data and determined on an industry-by-industry basis, was used to select those establishments that were to receive one of the approximately 200 census of manufactures 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 consisted of approximately 60,000 establishments. For those industries where application of the variable cutoff for administrative-records 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 one of the approximately 80 versions of the short form, which requested

summary product and material data and totals but no details on employment, payrolls, cost of materials, inventories, and capital expenditures.

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

Auxiliaries

In this industry report, the data on employment and payroll are limited to operating manufacturing establishments. The census report form filed for auxiliaries (ES-9200) requested a description of the activity of the establishments serviced. However, the manufacturing auxiliaries were coded only to the two-digit major group of the establishments they served; whereas, the operating establishments were coded to a four-digit manufacturing industry. Data for the approximately 10,000 separately operated auxiliaries are included in the geographic area series and in a report issued as part of the 1987 Enterprise Statistics Survey.

Auxiliaries are establishments whose employees are primarily engaged in performing supporting services for other establishments of the same company, rather than for the general public or for other business firms. They can be at different locations from the establishments served or at the same location as one of those establishments but not operating as an integral part thereof and serving two establishments or more. Where auxiliary operations are conducted at the same location as the manufacturing operation and operate as an integral part thereof, they usually are included in the report for the operating manufacturing establishment.

Included in the broad category of auxiliaries are administrative offices. Employees in administrative offices are concerned with the general management of multiestablishment companies, i.e., with the general supervision and control of two units or more, such as manufacturing plants, mines, sales branches, or stores. The functions of these employees may include (1) program planning, including sales research and coordination of purchasing, production, and distribution; (2) company purchasing, including general contracts and purchasing methods; (3) company financial policy and accounting; (4) general engineering, including design of product machinery and equipment, and direction of engineering effort conducted at the individual operation locations; (5) direction of company personnel matters; and (6) legal and patent matters.

Other types of auxiliaries serving the plants or central management of the company include purchasing offices, sales promotion offices, research and development organizations, etc.

Industry Classification of Establishments

Each of the establishments covered in the census was classified in 1 of 459 manufacturing industries in accordance with the industry definitions in the 1987 SIC Manual. The 1987 edition of this manual represents a major revision for manufacturing industries from the 1972 edition and its 1977 supplement. Appendix A of the 1987 Manual notes the revisions in the four-digit industry levels between 1972/77 and 1987.

An industry is generally defined as a group of establishments producing the same product or a closely related group of products. The product groupings from which industry classifications are derived are based on considerations such as similarity of manufacturing processes, types of materials used, types of customers, and the like. The resulting group of establishments must be significant in terms of number, value added by manufacture, value of shipments, and number of employees. The system operates in such a way that the definitions progressively become narrower with successive additions of numerical digits. For 1987, there are 20 major groups (two-digit SIC), 139 industry groups (three-digit SIC), and 459 industries (four-digit SIC). This represents an expansion of four-digit industries from 452 in 1972/77 and a reduction of three-digit groups from 143 in 1972/77. Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they originate. There are about 11,000 products identified by a seven-digit code. The seven-digit products are considered the primary products of the industry with the same four digits.

Accordingly, an establishment is usually classified in a particular industry on the basis of its major activity during a particular year, i.e., production of the products primary to that industry exceeds, in value, production of the products primary to any other single industry. In a few instances, however, the industry classification of an establishment is not only determined by the products it makes but also by the process employed in operations. Refining of nonferrous metals from ore or rolling and drawing of nonferrous metals (processes which involve heavy capitalization in specialized equipment) would be classified according to the process used during a census year. These establishments then would be "frozen" in that industry during the following ASM years.

In either a census or ASM year, establishments included in the ASM sample with certainty weight, other than those involved with heavily capitalized activities described above, are reclassified by industry only if the change in the primary activity from the prior year is significant or 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 (see appendix, Annual Survey of Manufactures).

However, in the following census year, these ASM plants are allowed to shift from one industry to another.

The result of these rules covering the switching of plants from one industry classification to another is that, at the aggregate level, some industries comprise different mixes of establishments between survey years, and establishment data for such industry statistics as employment and payroll may be tabulated in different industries between survey years. Hence, comparisons between prior-year and current-year published totals, particularly at the four-digit SIC 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.

While some establishments produce only the primary products of the industry in which they are classified, all establishments of an industry rarely specialize to this extent. The industry statistics (employment, inventories, value added by manufacture, total value of shipments including resales and miscellaneous receipts, etc.) shown in tables 1a through 5a, therefore, reflect not only the primary activities of the establishments in that industry but also their secondary activities. The product statistics in table 6a represent the output of all establishments whether or not they are classified in the same industry as the product. For this reason, in relating the industry statistics, especially the value of shipments to the product statistics, the composition of the industry's output shown in table 5b should be considered.

The extent to which industry and product statistics may be matched with each other is measured by two ratios which are computed from the figures shown in table 5b. The first of these ratios, called the primary product specialization ratio, measures the proportion of product shipments (both primary and secondary) of the establishments classified in the industry represented by the primary products of those establishments. The second ratio, called the coverage ratio, is the proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

However, establishments making products falling into the same industry category may use a variety of processes and materials to produce them. Also, the same industry classification (based on end products) may include both establishments that are highly integrated and those that put only the finishing touches on an already highly fabricated item. For example, the refrigeration equipment industry includes instances of almost complete integration (production of the compressor, condensing unit, electric motor, casting, stamping of the case, and final assembly) all

carried on at one plant. On the other hand, the condensing unit, the motor, and the case may be purchased and only assembled into the finished product.

In some instances, separate industry categories have been established for integrated and nonintegrated establishments. For other industries, the census provides separate statistics on the production of intermediate commodities made and used in the producing plant. For some industries characterized by many plants of the same company, separate figures on interplant transfers of products usually are shown.

Differences in the integration of production processes, types of operations, and alternatives in types of materials used should be considered when relating the industry statistics (employment, payrolls, value added, etc.) to the product and material data.

Value of Shipments for the Industry Compared With Value of Product Shipments

This report shows value of shipments data for industries and products. In tables 1a through 5a, 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 table 6a represents the total value of all products shipped that are classified as primary to an industry.

CENSUS DISCLOSURE RULES

In accordance with Federal law governing census reports, no data are published that would disclose the data for an individual establishment or company. However, the number of establishments classified in a specific industry is not considered a disclosure, so this information may be released even though other information is withheld.

The disclosure analysis for the industry statistics in tables 1a through 5a of this report 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. However, the suppressed data are included in higher-level totals. Additional disclosure analysis is performed for new capital expenditures that can be suppressed even though value of shipments data are publishable.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1987 Census of Manufactures may be obtained on computer tape or in tabular form. The data will be in summary form and 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) as are 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, Industry Division, Bureau of the Census, Washington, DC 20233.

n.e.c. Not elsewhere classified.
 n.s.k. Not specified by kind.
 pt. Part.
 r Revised.
 SIC Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, doz, bbl, and s tons, are used in the customary sense.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

- Represents zero.
- (D) Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
- (NA) Not available.
- (NC) Not comparable.
- (S) Withheld because estimate did not meet publication standards.
- (X) Not applicable.
- (Z) Less than half the unit shown.
- do Ditto.

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone
Census/ASM		
Durables	Kenneth Hansen	(301) 763-7304
Nondurables	Michael Zampogna	(301) 763-2510
Current Industrial Reports		
Durables	Malcolm Bernhardt	(301) 763-2518
Nondurables	Thomas Flood	(301) 763-5911
Import/Export Publications	Foreign Trade Division	(301) 763-5140
Industry Analysis and Forecasts	International Trade Administration	(202) 377-4356

Users' Guide for Locating Statistics in This Report by Table Number

For explanation of terms, see appendixes

Item	Four-digit industry statistics							Five-digit product class and seven-digit product statistics			
	Historical	Operating ratios	By geographic area	Summary and supplemental	By employment size	By industry and product class specialization	Materials consumed by kind	Industry-product analysis	Product shipments	Product class by geographic area	Historical product class
Number of companies	1a			3a					*6a		
Number of establishments....	1a		2	3a	4	5a					
Employment and payroll:.....											
Number of employees	1a	1b	2	3a	4	5a					
Payroll	1a	1b	2	3a	4	5a					
Supplemental labor costs ...				3a							
Production workers	1a	1b	2	3a	4	5a					
Production- worker hours....	1a	1b	2	3a	4	5a					
Production- worker wages...	1a	1b	2	3a	4	5a					
Shipments, cost of materials, and value added:											
Value of shipments (four-digit)	1a	1b	2	3a	4	5a		5b			
Product class shipments (five-digits)									6a	6b	6c
Product shipments (seven-digit)									6a		
Value added by manufacture	1a	1b	2	3a	4	5a					
Cost of materials	1a	1b	2	3a	4	5a					
Fuels and electric energy ...				3a							
Materials consumed by kind.							7				
Inventories:											
Total, end of year	1a			3a	4						
By stage of fabrication				3a							
Capital expenditures, assets, rental payments, and purchased services:											
New capital expenditures....	1a		2	3b	4	5a					
Used plant and equipment expenditures.....				3b							
Gross assets				3b							
Depreciation				3b							
Retirements of buildings and machinery				3b							
Rental payments				3b							
Foreign content of materials consumed				3c							
Purchased services				3c							
Ratios:											
Specialization.....	1a			3a				5b			
Coverage.....	1a			3a				5b			

*Number of companies with shipments of more than \$100 thousand.

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DESCRIPTION OF INDUSTRIES AND SUMMARY OF FINDINGS

This report shows 1987 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC code and title

2441	Nailed Wood Boxes and Shook
2448	Wood Pallets and Skids
2449	Wood Containers, N.E.C.
2491	Wood Preserving
2493	Reconstituted Wood Products
2499	Wood Products, N.E.C.

The industry statistics (employment, payroll, cost of materials, value of shipments, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments but also their activities in the manufacture of secondary products as well as their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account when comparing industry statistics (tables 1 through 5a) with product statistics (table 6) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5b, which shows the value of primary and secondary products shipped by establishments classified in the specified industry and the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

Small single-establishment companies with up to 20 employees (cutoff varied by industry) were excluded from the mail portion of the census. For these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated), data on payrolls and receipts were obtained from administrative records of other Federal agencies. The remaining statistics were developed from industry averages.

Establishment data were tabulated based on industry definitions included in the 1987 Standard Industrial Classification (SIC) Manual¹. The 1987 edition represents a major revision for manufacturing industries from the 1972 edition and its 1977 supplement. In addition to the 1987 SIC revision, changes were made to the product class (five-digit) and product code (seven-digit) categories. The

product class and product code comparability between the 1987 and 1982 censuses is shown in the appendixes. These appendixes present, in tabular form, the linkage from 1987 to 1982.

All dollar figures included in this report are at prices current for the year specified and, therefore, unadjusted for changes in price levels. Consequently, when making comparisons to prior years, users should take into consideration the inflation that has occurred.

INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK

This industry is made up of establishments primarily engaged in manufacturing nailed and lock-corner wood boxes (lumber or plywood), and shook for nailed and lock-corner boxes.

The 1987 definition of this industry is the same as that used in the 1972/7 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1987 Census of Manufactures, Industry 2441, Nailed Wood Boxes and Shook, had employment of 5.9 thousand. The employment figure was 8 percent below the 6.4 thousand reported in 1982. Compared with 1986, employment increased 5 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses. The leading States in employment in 1987 were California, Pennsylvania, Wisconsin, and Washington. This represents a shift from 1982 when California, Washington, Texas, and North Carolina were the leading States.

The total value of shipments for establishments classified in this industry was \$325.0 million.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2441 shipped \$274.7 million of nailed wood boxes and shook products considered primary to the industry, \$28.8 million of secondary products, and had \$21.5 million of miscellaneous receipts. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 91 percent (specialization ratio). In 1982, the specialization ratio was 90 percent.

Establishments in this industry also accounted for 79 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). In 1982, the coverage ratio was 81 percent. The products

¹Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

primary to industry 2441, no matter in what industry they were produced, appear in table 6a and aggregate to \$347.6 million. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the nailed wood boxes and shook industry amounted to \$182.0 million. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 19 percent of total value of shipments.

INDUSTRY 2448, WOOD PALLETS AND SKIDS

This industry is made up of establishments primarily engaged in manufacturing wood or wood and metal combination pallets and skids.

The 1987 definition of this industry is the same as that used in the 1972/7 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1987 Census of Manufactures, Industry 2448, Wood Pallets and Skids, had employment of 25.7 thousand. The employment figure was 16 percent above the 22.1 thousand reported in 1982. Compared with 1986, employment increased 24 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses. The leading States in employment in 1987 were California, Ohio, Michigan, and Pennsylvania. These same States were the leaders in 1982.

The total value of shipments for establishments classified in this industry was \$1.5 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2448 shipped \$1.4 billion of wood pallets and skids products considered primary to the industry, \$99.7 million of secondary products, and had \$43.5 million of miscellaneous receipts. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 93 percent (specialization ratio). In 1982, the specialization ratio was 92 percent.

Establishments in this industry also accounted for 94 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). In 1982, the coverage ratio was 93 percent. The products primary to industry 2448, no matter in what industry they were produced, appear in table 6a and aggregate to \$1.4 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the wood pallets and skids industry amounted to \$880.2 million. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 10 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 20 percent of total value of shipments.

INDUSTRY 2449, WOOD CONTAINERS, N.E.C.

This industry is made up of establishments primarily engaged in manufacturing wood containers, not elsewhere classified, such as cooperage, wirebound boxes and crates, and other veneer and plywood containers. Establishments primarily engaged in manufacturing tobacco hogshead stock are classified in industry 2421, and those manufacturing cooperage stock are classified in industry 2429.

The 1987 definition of this industry is the same as that used in the 1972/7 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1987 Census of Manufactures, Industry 2449, Wood Containers, N.E.C., had employment of 5.4 thousand. The employment figure was 27 percent below the 7.4 thousand reported in 1982. Compared with 1986, employment increased 8 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses. The leading States in employment in 1987 were Georgia, North Carolina, Mississippi, and California. This represents a shift from 1982 when North Carolina, Georgia, Kentucky, and Tennessee were the leading States.

The total value of shipments for establishments classified in this industry was \$248.3 million.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2449 shipped \$210.8 million of wood containers, n.e.c., considered primary to the industry, \$18.5 million of secondary products, and had \$19.0 million of miscellaneous receipts. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 92 percent (specialization ratio). In 1982, the specialization ratio was 95 percent.

Establishments in this industry also accounted for 96 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). In 1982, the coverage ratio was 97 percent. The products primary to industry 2449, no matter in what industry they

were produced, appear in table 6a and aggregate to \$218.6 million. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the wood containers, n.e.c., industry amounted to \$136.2 million. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 10 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 12 percent of total value of shipments.

INDUSTRY 2491, WOOD PRESERVING

This industry is made up of establishments primarily engaged in treating wood, sawed or planed in other establishments, with creosote or other preservatives to prevent decay and to protect against fire and insects. It also includes establishments engaged in cutting, treating, and selling of poles, parts, and piling, but establishments primarily engaged in manufacturing other wood products, which they may also treat with preservatives, are not included.

The 1987 definition of this industry is the same as that used in the 1972/7 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1987 Census of Manufactures, Industry 2491, Wood Preserving, had employment of 11.8 thousand. The employment figure was 8 percent above the 10.9 thousand reported in 1982. Compared with 1986, employment increased 6 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses. The leading States in employment in 1987 were Alabama, Virginia, Georgia, and South Carolina, accounting for 31 percent of the industry's employment. This represents a shift from 1982 when Georgia, Texas, Alabama, and Mississippi accounted for 33 percent of the industry's employment.

The total value of shipments for establishments classified in this industry was \$2.2 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2491 shipped \$2.1 billion of preservative treated wood products considered primary to the industry, \$69.2 million of secondary products, and had \$48.8 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 97 percent (specialization ratio). In 1982, the specialization ratio was 98 percent.

Establishments in this industry also accounted for 95 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). In 1982, the coverage ratio was 96 percent. The products primary to industry 2491, no matter in what industry they were produced, appear in table 6a and aggregate to \$2.2 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the wood preserving industry amounted to \$1.6 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 10 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 18 percent of total value of shipments.

INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS

This industry is made up of establishments primarily engaged in manufacturing reconstituted wood products. Important products of this industry are hardboard, particleboard, insulation board, medium density fiberboard, waferboard and oriented strandboard. Selected products of this industry also are collected in the Current Industrial Report MA-26A, Pulp, Paper, and Board.

Industry 2493, Reconstituted Wood Products, is a combination of 1972 SIC-based industry 2492, Particleboard, and parts of 1972 SIC-based industries 2499, Wood Products, N.E.C., and 2661, Building Paper and Board Mills. The effect of the revisions on the data is summarized in tables 1c-1 and 1c-2. During the 1987 processing, each establishment was classified according to both the old and new SIC. Table 1c-1 shows the distribution of the new industry among the old SIC classifications. Table 1c-2 shows the distribution of the old SIC-based industries among the new SIC classifications.

In the 1987 Census of Manufactures, Industry 2493, Reconstituted Wood Products, had employment of 22.0 thousand. The leading States in employment in 1987 were Oregon, North Carolina, Mississippi, and Virginia, accounting for 37 percent of the industry's employment.

The total value of shipments for establishments classified in this industry was \$2.9 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2493 shipped \$2.8 billion of reconstituted wood products considered primary to the industry, \$42.2 million of secondary products, and had \$59.2 million of miscellaneous

receipts. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 98 percent (specialization ratio).

Establishments in this industry also accounted for 95 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). The products primary to industry 2493, no matter in what industry they were produced, appear in table 6a and aggregate to \$2.9 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the reconstituted wood products industry amounted to \$1.5 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 5 percent of total value of shipments.

INDUSTRY 2499, WOOD PRODUCTS, N.E.C.

This industry is made up of establishments primarily engaged in manufacturing miscellaneous wood products, not elsewhere classified, and products from rattan, reed, splint, straw, veneer, veneer strips, wicker, and willow.

The 1987 definition of this industry has been revised from that used in the 1972 Standard Industrial Classification (SIC) manual. However, the SIC number and title are unchanged. Product Classes 24993, Medium Density Fiberboard; 24995, Prefinished Particleboard and Medium Density Fiberboard; and 24996 and 24998, Hardboard Products, classified in 1972 SIC-based industry 2499 are now classified in industry 2493. The effect of the revisions on the data is summarized in tables 1c-1 and 1c-2. During the

1987 processing, each establishment was classified according to both the old and new SIC. Table 1c-1 shows the distribution of the new industry among the old SIC classifications. Table 1c-2 shows the distribution of the old SIC-based industries among the new SIC classifications.

In the 1987 Census of Manufactures, Industry 2499, Wood Products, N.E.C., had employment of 56.1 thousand. The leading States in employment in 1987 were California, New York, Maine, and Texas.

The total value of shipments for establishments classified in this industry was \$3.3 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2499 shipped \$3.0 billion of wood products, n.e.c., considered primary to the industry, \$144.5 million of secondary products, and had \$167.7 million of miscellaneous receipts. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 95 percent (specialization ratio).

Establishments in this industry also accounted for 94 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). The products primary to industry 2499, no matter in what industry they were produced, appear in table 6a and aggregate to \$3.2 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the wood products, n.e.c., industry amounted to \$1.6 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 32 percent of total value of shipments.

Table 1a-1. Historical Statistics for the Industry (1987 Basis): 1987 and Earlier Years

(Industries with only 1987 data are revised for 1987. Table 1a-2 contains historical data on the old SIC basis. See table 1c-1 for composition of the new industry on the old SIC basis. Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes)

Year ¹	All establishments ²			All employees		Production workers			Value added by manufacture ³ (million dollars)	Cost of materials ³ (million dollars)	Value of shipments (million dollars)	New capital expenditures ³ (million dollars)	End-of-year inventories ³ (million dollars)	Ratios	
	Companies ² (no.)	Total (no.)	With 20 employees or more (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						Specialization ⁷ (percent)	Coverage ⁸ (percent)
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK															
1987 Census	304	308	85	5.9	84.7	4.9	9.0	57.4	146.5	182.0	325.0	5.5	37.0	91	79
1986 ASM ⁹	(NA)	(NA)	(NA)	5.8	77.3	4.5	8.2	54.7	157.1	181.8	338.5	6.5	24.6	(NA)	(NA)
1985 ASM ⁹	(NA)	(NA)	(NA)	6.0	79.1	4.8	8.9	56.0	146.8	179.6	329.7	4.8	21.8	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	6.7	80.9	5.8	10.0	59.3	147.6	187.4	336.8	10 ¹⁴ 4.0	29.2	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	7.1	84.6	6.0	10.6	58.1	153.9	184.8	334.8	10 ¹² 5.5	37.8	(NA)	(NA)
1982 Census	335	338	90	6.4	78.5	5.3	9.4	58.0	137.9	166.7	306.8	6.9	29.9	90	81
1981 ASM	(NA)	(NA)	(NA)	6.7	63.7	5.5	10.2	48.1	104.7	128.7	235.7	5.2	23.8	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	7.8	70.8	6.5	11.8	51.8	127.8	157.1	283.3	19 ⁵ 6.6	29.8	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	8.9	74.1	7.4	13.4	55.5	118.7	179.0	286.9	19 ⁴ 8.8	33.6	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	9.2	78.9	8.0	14.8	58.7	116.8	176.9	297.4	19 ⁴ 9.4	33.0	(NA)	(NA)
1977 Census	391	396	110	8.6	68.6	7.5	13.7	53.6	116.2	147.4	263.3	5.4	31.2	89	83
1976 ASM	(NA)	(NA)	(NA)	8.3	62.1	7.1	12.3	47.2	112.0	125.0	235.9	6.6	27.6	(NA)	(NA)
1975 ASM ⁹	(NA)	(NA)	(NA)	7.2	50.6	6.0	10.6	37.4	94.7	106.6	205.7	7.1	27.1	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	9.7	64.1	8.5	15.5	50.6	129.3	133.4	262.3	19 ⁴ 8.8	31.5	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	9.5	58.4	8.4	15.5	45.7	96.7	114.1	210.0	19 ⁶ 6.6	27.4	(NA)	(NA)
1972 Census	424	436	130	10.7	61.1	9.5	18.4	49.0	103.8	136.3	237.9	6.4	26.1	88	87
INDUSTRY 2448, WOOD PALLETS AND SKIDS															
1987 Census	1 678	1 701	415	25.7	328.0	21.7	38.0	237.9	616.8	880.2	1 496.1	43.8	115.6	93	94
1986 ASM ⁹	(NA)	(NA)	(NA)	20.7	284.6	16.3	27.9	191.5	588.8	803.5	1 394.1	28.3	107.5	(NA)	(NA)
1985 ASM ⁹	(NA)	(NA)	(NA)	21.2	301.8	17.4	33.2	209.1	598.3	771.9	1 363.9	39.7	110.5	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	22.3	268.2	18.8	34.3	200.8	602.7	804.2	1 400.9	19 ³ 4.5	104.8	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	22.5	237.0	19.3	34.4	170.4	412.4	627.1	1 051.8	19 ³ 4.3	103.0	(NA)	(NA)
1982 Census	1 649	1 677	362	22.1	230.4	18.4	32.7	165.0	420.5	589.1	1 012.3	29.4	104.3	92	93
1981 ASM	(NA)	(NA)	(NA)	22.7	237.7	19.4	35.6	178.0	425.0	548.2	974.1	19 ³ 9.9	89.8	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	22.9	220.2	19.7	38.2	162.9	438.6	595.5	1 029.7	19 ² 6.7	88.1	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	24.6	220.7	21.7	40.3	168.2	398.3	606.5	1 001.2	19 ⁵ 5.6	83.5	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	23.2	205.5	20.6	38.9	157.2	383.9	548.8	936.0	54.7	42.6	(NA)	(NA)
1977 Census	1 267	1 290	348	20.3	163.8	17.9	32.1	126.3	303.1	397.3	698.0	21.3	58.1	90	91
1976 ASM	(NA)	(NA)	(NA)	13.1	107.9	11.4	20.1	83.1	239.5	256.6	493.4	13.3	37.1	(NA)	(NA)
1975 ASM ⁹	(NA)	(NA)	(NA)	13.0	107.0	11.1	19.0	80.0	223.3	247.6	475.1	19.6	35.9	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	15.7	108.8	13.7	24.9	82.6	262.8	282.4	521.3	19 ² 0.5	38.6	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	17.1	95.4	14.7	26.5	71.5	205.8	234.0	437.6	14.9	30.3	(NA)	(NA)
1972 Census	444	456	271	14.3	77.7	12.5	23.1	60.3	140.9	155.2	285.4	11.2	17.2	91	88
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.															
1987 Census	198	208	51	5.4	70.4	4.7	8.6	50.4	111.6	136.2	248.3	2.8	39.9	92	96
1986 ASM ⁹	(NA)	(NA)	(NA)	5.0	58.3	4.4	8.2	46.2	84.0	151.0	235.8	3.0	48.1	(NA)	(NA)
1985 ASM ⁹	(NA)	(NA)	(NA)	5.8	69.4	5.1	9.6	54.0	96.0	183.6	279.3	2.1	58.6	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	6.1	68.6	5.3	10.0	52.9	121.3	147.6	275.1	19 ² 8.8	50.7	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	7.1	85.7	6.2	12.6	68.1	131.4	189.8	309.2	19 ⁴ 0.0	57.0	(NA)	(NA)
1982 Census	216	235	72	7.4	84.0	6.5	12.5	65.9	144.6	168.8	315.8	3.7	57.2	95	97
1981 ASM	(NA)	(NA)	(NA)	9.6	91.0	7.7	14.8	71.5	168.1	196.4	366.1	3.1	72.9	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	9.5	87.3	8.4	14.8	68.8	144.2	187.4	327.8	2.8	66.5	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	8.9	77.9	8.0	15.9	62.4	122.1	170.9	286.8	19 ⁷ 0.0	51.0	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	8.8	72.0	7.9	14.8	57.8	132.2	157.1	291.0	19 ⁷ 3.0	43.3	(NA)	(NA)
1977 Census	239	263	82	8.9	67.2	8.0	15.5	53.7	120.4	134.4	255.8	2.9	50.5	93	97
1976 ASM	(NA)	(NA)	(NA)	11.3	80.8	10.3	19.5	66.1	160.7	154.3	311.0	3.2	49.1	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	11.3	75.8	10.3	19.6	61.9	154.3	152.5	303.0	19 ⁹ 9.9	47.3	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	12.5	76.9	11.4	23.2	63.8	159.2	161.8	316.4	19 ⁶ 4.0	51.1	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	12.3	70.3	11.1	22.0	56.0	132.0	139.3	272.2	3.5	38.6	(NA)	(NA)
1972 Census	236	268	100	11.9	65.0	10.5	21.0	51.9	114.1	126.7	240.2	3.6	38.9	94	96
INDUSTRY 2491, WOOD PRESERVING															
1987 Census	456	540	202	11.8	207.7	9.1	18.2	140.6	552.6	1 620.1	2 169.6	44.1	365.5	97	95
1986 ASM	(NA)	(NA)	(NA)	11.1	181.1	8.6	17.1	127.9	504.1	1 269.3	1 774.0	35.3	324.7	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	11.1	184.0	9.0	18.2	133.4	525.9	1 206.4	1 683.5	47.7	323.4	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	10.7	171.7	8.8	18.3	127.0	495.2	1 177.4	1 625.5	43.5	302.9	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	10.2	155.7	8.1	15.7	108.3	334.3	1 031.7	1 378.4	23.8	298.8	(NA)	(NA)
1982 Census	428	524	184	10.9	159.4	8.6	16.5	108.2	383.7	978.5	1 360.2	35.9	315.3	98	96
1981 ASM	(NA)	(NA)	(NA)	12.3	173.5	9.8	19.9	117.3	419.6	972.8	1 389.0	43.4	289.5	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	13.2	170.6	10.6	21.2	118.3	449.7	975.7	1 397.4	43.3	284.0	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	12.9	153.8	10.4	20.8	105.5	394.4	867.8	1 246.6	46.4	242.6	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	12.9	142.2	10.2	21.0	93.8	385.7	781.4	1 166.8	19 ³ 6.3	219.5	(NA)	(NA)
1977 Census	368	457	192	12.6	126.1	9.9	18.7	82.9	327.1	657.5	962.8	30.3	212.5	97	97
1976 ASM	(NA)	(NA)	(NA)	9.7	94.5	7.7	15.4	59.3	229.0	476.8	704.3	22.3	159.7	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	9.3	87.5	7.4	15.7	60.2	228.3	415.8	647.7	19 ² 7.5	155.7	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	10.6	93.6	8.6	18.5	68.1	326.3	479.8	761.2	28.1	168.4	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	10.1	75.1	8.4	17.9	55.1	186.3	371.5	557.4	11.6	96.6	(NA)	(NA)
1972 Census	309	399	168	11.3	74.5	9.2	18.8	54.4	175.8	303.6	475.8	14.8	94.7	99	96
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS¹¹															
1987 Census	158	240	154	22.0	504.5	17.7	37.1	370.4	1 371.1	1 488.9	2 864.9	149.8	257.2	98	95
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.¹¹															
1987 Census	3 223	3 324	671	56.1	824.2	46.4	86.5	576.7	1 726.0	1 587.0	3 295.5	74.3	489.8	95	94

¹In annual survey of manufactures (ASM) years, data are estimates based on a representative sample of establishments canvassed annually and may differ from results of a complete canvass of all establishments. ASM publication shows percentage standard errors. Unless otherwise noted, for data prior to 1972, see 1972 Census of Manufactures, vol. II, table 1a of the industry chapter.

²For the Census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during year.

Table 1a-1. Historical Statistics for the Industry (1987 Basis): 1987 and Earlier Years—Con.

*Beginning with the 1982 Census of Manufactures, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior Censuses and annual surveys of manufactures in which respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, inventories and value added by manufacture are not comparable to prior-year data.
 †Detailed data on materials consumed by type are shown in table 7.
 ‡Detailed data on new machinery and equipment expenditures are provided in table 3c.
 §Represents ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for establishments classified in the industry.
 ¶Represents ratio of primary products shipped by establishments classified in industry to total shipments of such products by all manufacturing establishments, wherever classified.
 ††Data either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data; thus, these estimates may be of limited reliability.
 †††Estimates for new capital expenditures have associated standard error of 15 percent or more and may be of limited reliability. Estimates for other data items are of acceptable reliability.
 ††††Industry definition is new for 1987 Census of Manufactures. An explanation of the Standard Industrial Classifications revision appears in the Summary of Findings of this report.

Table 1a-2. Historical Statistics for the Industry (1972 Basis): 1987 and Earlier Years

[Table 1a-2 contains the historical data on the old SIC basis. See table 1c-1 for composition of the new industry on the old SIC basis. Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Year	All establishments			All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)	Ratios	
	Companies (no.)	Total (no.)	With 20 employees or more (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						Specialization (percent)	Coverage (percent)
INDUSTRY 2492, PARTICLEBOARD															
1987 Census	32	69	65	8.9	211.3	7.3	15.9	163.0	683.0	692.9	1 375.0	84.2	87.0	(NA)	(NA)
1986 ASM	(NA)	(NA)	(NA)	7.9	187.7	6.4	13.6	143.1	580.7	616.7	1 195.9	116.6	77.4	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	6.8	155.4	5.5	12.0	121.5	442.8	543.3	980.4	72.2	63.6	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	6.4	139.8	5.2	11.3	107.4	375.0	503.8	881.5	71.3	53.2	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	5.9	120.9	4.9	10.0	92.9	276.4	409.8	695.3	24.5	44.5	(NA)	(NA)
1982 Census	31	54	50	5.6	104.5	4.5	8.9	77.8	193.3	344.4	547.4	112.9	43.7	97	96
1981 ASM	(NA)	(NA)	(NA)	5.1	87.2	4.4	8.5	68.0	209.5	323.0	532.2	122.4	28.8	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	5.4	85.1	4.6	9.1	65.1	215.5	293.8	512.4	22.0	50.5	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	6.0	85.5	5.1	10.8	67.9	255.4	290.8	539.8	125.7	30.3	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	6.7	91.1	5.4	11.5	69.8	332.8	306.5	633.2	34.9	28.4	(NA)	(NA)
1977 Census	35	63	51	6.2	79.1	5.0	10.9	60.3	207.2	245.3	452.9	32.5	21.1	99	95
1976 ASM	(NA)	(NA)	(NA)	5.6	62.7	4.6	9.3	47.4	125.7	196.5	320.5	33.2	23.1	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	5.5	55.5	4.5	8.9	41.5	90.1	175.2	265.0	30.2	24.7	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	7.5	67.9	6.1	12.8	52.0	168.2	199.0	384.8	58.5	25.4	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	7.6	68.7	6.5	13.8	54.2	217.4	173.4	391.1	12.5	17.5	(NA)	(NA)
1972 Census	40	68	64	7.7	65.5	6.4	13.8	51.8	144.5	152.1	295.4	34.6	16.8	91	93
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.															
1987 Census	3 349	3 494	757	69.2	1 112.9	56.6	107.1	781.5	2 427.6	2 365.4	4 780.3	140.6	662.1	(NA)	(NA)
1986 ASM	(NA)	(NA)	(NA)	64.3	841.7	52.0	96.2	658.7	2 003.0	1 989.1	3 986.1	115.0	568.2	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	61.9	819.4	50.9	95.1	645.5	1 935.7	1 981.5	3 895.5	146.7	564.0	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	65.2	847.7	53.6	100.4	659.6	2 087.8	2 053.9	4 118.2	116.4	593.8	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	64.1	875.1	52.7	97.7	606.7	2 019.1	1 798.4	3 786.0	84.9	574.5	(NA)	(NA)
1982 Census	3 226	3 387	644	60.6	799.6	49.4	90.0	559.3	1 645.6	1 677.8	3 347.8	142.3	541.5	95	94
1981 ASM	(NA)	(NA)	(NA)	61.5	784.9	51.3	98.0	547.0	1 679.9	1 745.8	3 392.2	173.3	513.9	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	65.2	747.4	52.2	99.6	516.3	1 474.1	1 701.7	3 180.2	185.0	456.6	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	67.3	711.7	54.8	105.8	511.5	1 589.1	1 687.1	3 249.0	138.3	441.2	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	65.1	664.9	54.5	100.9	471.3	1 415.4	1 478.3	2 884.2	119.3	398.1	(NA)	(NA)
1977 Census	2 903	3 050	662	64.6	608.1	53.9	102.3	438.0	1 265.5	1 302.8	2 557.6	116.9	368.5	94	93
1976 ASM	(NA)	(NA)	(NA)	66.7	573.7	56.2	104.3	414.1	1 142.2	1 169.5	2 272.9	102.9	338.3	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	63.4	483.4	54.0	93.9	349.2	924.2	964.1	1 898.8	96.9	269.8	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	70.2	508.2	59.8	108.6	366.7	975.4	1 037.0	1 864.6	112.0	288.9	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	66.4	446.9	56.4	108.1	325.8	899.7	848.9	1 744.3	72.5	240.1	(NA)	(NA)
1972 Census	3 008	3 133	646	63.0	410.0	53.0	102.6	294.3	809.1	714.6	1 518.9	86.3	202.6	93	91
INDUSTRY 2661, BUILDING PAPER AND BOARD MILLS															
1987 Census	13	17	17	2.2	59.6	1.8	3.7	43.8	108.3	183.3	294.0	11.8	29.9	(NA)	(NA)
1986 ASM	(NA)	(NA)	(NA)	2.4	61.3	1.9	4.0	45.7	135.2	176.1	311.2	10.4	34.8	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	3.5	87.8	2.8	6.1	69.1	207.2	240.3	448.8	17.6	44.9	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	3.7	88.0	3.1	6.3	69.2	194.8	275.7	468.0	21.1	47.3	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	3.8	81.6	3.1	6.3	64.5	182.4	241.6	424.3	15.1	42.8	(NA)	(NA)
1982 Census	19	30	23	3.6	70.6	2.9	5.7	54.8	158.2	204.4	366.1	14.5	45.4	87	87
1981 ASM	(NA)	(NA)	(NA)	6.5	111.2	5.3	10.7	86.6	210.8	340.0	540.1	26.8	60.5	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	6.7	109.2	5.5	11.3	86.9	223.5	309.3	528.0	40.4	55.0	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	7.1	113.1	5.9	12.6	91.1	242.2	313.7	549.8	47.7	54.0	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	6.9	106.8	5.8	12.4	85.8	238.4	288.8	526.9	18.9	45.0	(NA)	(NA)
1977 Census	22	58	53	7.0	96.9	5.9	12.5	77.9	218.2	254.3	473.7	16.6	45.0	93	83
1976 ASM	(NA)	(NA)	(NA)	7.6	94.1	6.4	13.4	75.8	194.9	235.4	428.7	12.1	44.1	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	9.4	106.3	7.8	15.9	83.9	237.9	249.4	488.9	26.2	56.7	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	11.1	120.1	9.3	19.8	98.1	269.6	284.9	546.7	62.6	55.1	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	11.3	117.4	9.7	21.4	97.2	251.1	238.3	488.9	26.4	40.8	(NA)	(NA)
1972 Census	46	92	74	11.6	111.8	9.9	21.4	91.4	246.5	211.8	456.2	18.8	36.4	85	92

Note: For qualifications of data, see footnotes on table 1a.

Table 1b-1. Selected Operating Ratios for the Industry (1987 Basis): 1987 and Earlier Years

(Industries with only 1987 data are revised for 1987. Table 1b-2 contains historical data on the old SIC basis. See table 1c-1 for composition of the new industry on the old SIC basis. Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes)

Year	Payroll per employee (dollars)	Production workers as percent of total employment (percent)	Annual hours of production workers (number)	Average hourly earnings of production workers (dollars)	Cost of materials as percent of value of shipments (percent)	Cost of materials and payroll as percent of value of shipments (percent)	Value added per employee (dollars)	Payroll as percent of value added (percent)	Value added per production worker hour (dollars)
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK									
1987 Census	14 356	83	1 837	6.38	56	82	24 831	58	16.28
1986 ASM	13 803	80	1 822	6.67	54	77	28 054	49	19.16
1985 ASM	13 183	80	1 854	6.29	54	78	24 467	54	16.49
1984 ASM	12 074	87	1 724	5.93	56	80	22 030	55	14.76
1983 ASM	11 915	85	1 767	5.48	55	80	21 676	55	14.52
1982 Census	11 953	83	1 774	5.96	54	79	21 547	55	14.67
1981 ASM	9 507	82	1 855	4.52	55	82	15 627	61	10.26
1980 ASM	9 076	83	1 815	4.37	55	80	16 385	55	10.83
1979 ASM	8 325	83	1 811	4.14	60	85	13 337	62	8.86
1978 ASM	8 576	87	1 850	3.97	59	86	12 696	68	7.89
1977 Census	7 976	87	1 827	3.91	56	82	13 512	59	8.48
1976 ASM	7 481	86	1 732	3.84	53	79	13 494	55	9.11
1975 ASM	7 027	83	1 767	3.53	52	76	13 153	53	8.93
1974 ASM	6 508	88	1 824	3.26	51	75	13 330	50	8.34
1973 ASM	6 147	88	1 845	2.95	54	82	10 179	60	6.24
1972 Census	5 710	88	1 937	2.66	57	83	9 701	59	5.64
INDUSTRY 2448, WOOD PALLETS AND SKIDS									
1987 Census	12 763	84	1 751	6.26	59	81	24 000	53	16.23
1986 ASM	13 748	79	1 712	6.86	58	78	28 444	48	21.10
1985 ASM	14 235	82	1 908	6.30	57	79	25 222	50	18.02
1984 ASM	12 026	84	1 824	5.85	57	77	27 027	44	17.57
1983 ASM	10 533	86	1 782	4.95	60	82	18 329	57	11.99
1982 Census	10 425	83	1 777	5.05	58	81	19 027	55	12.86
1981 ASM	10 471	85	1 835	5.00	56	81	18 722	56	11.94
1980 ASM	9 615	86	1 838	4.50	58	79	19 153	50	12.12
1979 ASM	8 971	88	1 857	4.17	61	83	16 191	55	9.88
1978 ASM	8 857	89	1 888	4.04	59	81	16 547	54	9.87
1977 Census	8 068	88	1 793	3.93	57	80	14 931	54	9.44
1976 ASM	8 236	87	1 763	4.13	52	74	18 282	45	11.92
1975 ASM	8 230	85	1 712	4.21	52	75	17 177	48	11.75
1974 ASM	6 929	87	1 818	3.32	50	71	16 739	41	10.55
1973 ASM	5 578	86	1 803	2.70	53	75	12 035	46	7.77
1972 Census	5 433	87	1 848	2.61	53	79	9 853	55	6.10
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.									
1987 Census	13 037	87	1 830	5.86	55	83	20 667	63	12.98
1986 ASM	11 660	88	1 864	5.63	64	89	16 800	69	10.24
1985 ASM	11 965	88	1 882	5.63	66	91	16 552	72	10.00
1984 ASM	11 245	87	1 887	5.29	54	79	19 885	57	12.13
1983 ASM	12 070	87	2 032	5.40	55	83	18 507	65	10.43
1982 Census	11 351	88	1 923	5.27	53	80	19 541	58	11.57
1981 ASM	10 581	90	1 922	4.83	54	79	19 547	54	11.36
1980 ASM	9 189	88	1 762	4.65	57	84	15 179	61	9.74
1979 ASM	8 752	90	1 988	3.92	60	87	13 719	64	7.68
1978 ASM	8 181	90	1 873	3.91	54	79	15 023	54	8.93
1977 Census	7 550	90	1 938	3.46	53	79	13 528	56	7.77
1976 ASM	7 150	91	1 893	3.39	50	76	14 221	50	8.24
1975 ASM	6 707	91	1 903	3.16	50	75	13 655	49	7.87
1974 ASM	6 152	91	2 035	2.75	51	75	12 736	48	6.86
1973 ASM	5 715	90	1 882	2.55	51	77	10 732	53	6.00
1972 Census	5 462	88	2 000	2.47	53	80	9 588	57	5.43
INDUSTRY 2491, WOOD PRESERVING									
1987 Census	17 602	77	2 000	7.73	75	84	46 831	38	30.36
1986 ASM	16 315	77	1 988	7.48	72	82	45 414	36	29.48
1985 ASM	16 576	61	2 022	7.33	72	83	47 376	35	28.90
1984 ASM	16 046	82	2 080	6.94	72	83	46 280	35	27.06
1983 ASM	15 264	79	1 938	6.90	75	86	32 775	47	21.29
1982 Census	14 623	79	1 919	6.56	72	84	35 202	42	23.25
1981 ASM	14 105	80	2 031	5.89	70	83	34 114	41	21.09
1980 ASM	12 924	80	2 000	5.58	70	82	34 068	38	21.21
1979 ASM	11 922	81	2 000	5.07	70	82	30 574	39	18.96
1978 ASM	11 023	79	2 059	4.47	67	79	29 899	37	18.37
1977 Census	10 007	79	1 990	4.21	68	81	25 960	39	16.60
1976 ASM	9 742	79	2 000	3.85	68	81	23 608	41	14.87
1975 ASM	9 409	80	2 122	3.83	64	78	24 548	38	14.54
1974 ASM	8 830	81	2 151	3.68	63	75	30 783	29	17.64
1973 ASM	7 435	83	2 131	3.08	67	80	18 446	40	10.41
1972 Census	6 592	81	2 043	2.89	64	79	15 558	42	9.35
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS									
1987 Census	22 932	80	2 096	9.98	52	70	62 323	37	36.96
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.									
1987 Census	14 692	83	1 864	6.67	48	73	30 766	48	19.95

Note: For qualifications of data, see footnotes on table 1a.

Table 1b-2. Selected Operating Ratios for the Industry (1972 Basis): 1987 and Earlier Years

[Table 1b-2 contains the historical data on the old SIC basis. See table 1c-1 for composition of the new industry on the old SIC basis. Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Year	Payroll per employee (dollars)	Production workers as percent of total employment (percent)	Annual hours of production workers (number)	Average hourly earnings of production workers (dollars)	Cost of materials as percent of value of shipments (percent)	Cost of materials and payroll as percent of value of shipments (percent)	Value added per employee (dollars)	Payroll as percent of value added (percent)	Value added per production worker hour (dollars)
INDUSTRY 2492, PARTICLEBOARD									
1987 Census	23 742	82	2 178	10.25	50	66	76 742	31	42.96
1986 ASM	23 759	81	2 125	10.52	52	67	73 506	32	42.70
1985 ASM	22 852	81	2 182	10.13	55	71	65 118	35	36.90
1984 ASM	21 843	81	2 173	9.50	57	73	58 594	37	33.19
1983 ASM	20 491	83	2 041	9.29	59	76	46 847	44	27.64
1982 Census	18 660	80	1 978	8.74	63	82	34 518	54	21.72
1981 ASM	17 098	86	1 932	8.00	61	77	41 078	42	24.65
1980 ASM	15 759	85	1 978	7.15	57	74	39 907	39	23.68
1979 ASM	14 250	85	2 078	6.41	54	70	42 567	33	24.09
1978 ASM	13 597	81	2 130	6.07	48	63	49 672	27	28.94
1977 Census	12 758	81	2 180	5.53	54	72	33 419	38	19.01
1976 ASM	11 196	82	2 022	5.10	61	81	22 446	50	13.52
1975 ASM	10 090	82	1 978	4.66	66	87	16 382	62	10.12
1974 ASM	9 053	81	2 098	4.06	55	73	22 427	40	13.14
1973 ASM	9 039	86	2 123	3.93	44	62	28 605	32	15.75
1972 Census	8 506	83	2 156	3.75	51	74	18 766	45	10.47
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.									
1987 Census	16 082	82	1 892	7.30	49	73	35 081	46	22.67
1986 ASM	14 645	81	1 850	6.85	50	74	31 151	47	20.82
1985 ASM	14 852	82	1 868	6.79	51	74	31 271	47	20.35
1984 ASM	14 535	82	1 873	6.57	50	73	32 018	45	20.79
1983 ASM	13 652	82	1 854	6.21	48	71	31 499	43	20.67
1982 Census	13 194	82	1 822	6.21	50	74	27 155	49	18.28
1981 ASM	12 762	83	1 910	5.58	51	75	27 315	47	17.14
1980 ASM	11 463	80	1 908	5.18	54	77	22 609	51	14.80
1979 ASM	10 575	81	1 831	4.83	52	74	23 612	45	15.02
1978 ASM	10 213	84	1 851	4.67	51	74	21 742	47	14.03
1977 Census	9 413	83	1 898	4.28	51	75	19 590	48	12.37
1976 ASM	8 601	84	1 856	3.97	51	77	17 124	50	10.95
1975 ASM	7 624	85	1 739	3.72	51	76	14 577	52	9.84
1974 ASM	7 239	85	1 816	3.38	53	79	13 895	52	8.98
1973 ASM	6 730	85	1 917	3.01	49	74	13 550	50	8.32
1972 Census	6 507	84	1 936	2.87	47	74	12 643	51	7.89
INDUSTRY 2661, BUILDING PAPER AND BOARD MILLS									
1987 Census	27 091	82	2 056	11.84	62	83	49 227	55	29.27
1986 ASM	25 541	79	2 105	11.42	57	76	56 333	45	33.80
1985 ASM	25 085	80	2 179	11.33	54	73	59 200	42	33.97
1984 ASM	23 783	84	2 032	10.98	59	78	52 649	45	30.92
1983 ASM	21 473	82	2 032	10.24	57	76	48 000	45	28.95
1982 Census	19 611	81	1 966	9.61	56	75	43 944	45	27.75
1981 ASM	17 107	82	2 019	8.09	63	84	32 431	53	19.70
1980 ASM	16 296	82	2 055	7.69	59	79	33 358	49	19.78
1979 ASM	15 929	83	2 136	7.23	57	78	34 113	47	19.22
1978 ASM	15 478	84	2 138	6.92	55	75	34 551	45	19.23
1977 Census	13 842	84	2 119	6.23	54	74	31 171	44	17.46
1976 ASM	12 381	84	2 094	5.66	55	77	25 645	48	14.54
1975 ASM	11 308	83	2 038	5.28	51	73	25 309	45	14.96
1974 ASM	10 819	84	2 129	4.95	52	74	24 288	45	13.62
1973 ASM	10 389	86	2 206	4.54	49	73	22 221	47	11.73
1972 Census	9 620	85	2 162	4.27	46	71	21 250	45	11.52

Note: For qualifications of data, see footnotes on table 1a.

Table 1c-1. 1987 Statistics for the Industry Showing the Distribution of 1987 SIC-Based Industries Among 1972 SIC-Based Industries

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

Industry	All establishments (number)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
		Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
New Industry 2493, Reconstituted Wood Products	240	22.0	504.5	17.7	37.1	370.4	1 371.1	1 488.9	2 864.9	149.9	257.2
Old Industry 2492, Particleboard	69	8.9	211.3	7.3	15.9	163.0	683.0	692.9	1 375.0	84.2	87.0
Old Industry 2499, Wood Products, N.E.C.	162	11.7	257.1	9.2	18.9	182.3	614.7	706.5	1 324.6	59.1	152.9
Old Industry 2661, Building Paper and Board Mills	9	1.4	36.1	1.1	2.3	25.1	73.3	89.4	165.3	6.6	17.3
New Industry 2499, Wood Products, N.E.C.	3 324	56.1	824.2	46.4	86.5	576.7	1 726.0	1 587.0	3 295.5	74.3	489.8
Old Industry 2499, Wood Products, N.E.C.	3 324	56.1	824.2	46.4	86.5	576.7	1 726.0	1 587.0	3 295.5	74.3	489.8

Note: For qualifications of data, see footnotes on table 1a.

Table 1c-2. 1987 Statistics for the Industry Showing the Distribution of 1972 SIC-Based Industries Among 1987 SIC-Based Industries

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

Industry	All establishments (number)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
		Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
Old Industry 2492, Particleboard	69	8.9	211.3	7.3	15.9	163.0	683.0	692.9	1 375.0	84.2	87.0
New Industry 2493, Reconstituted Wood Products	69	8.9	211.3	7.3	15.9	163.0	683.0	692.9	1 375.0	84.2	87.0
Old Industry 2499, Wood Products, N.E.C.	3 494	69.2	1 112.9	56.6	107.1	781.5	2 427.6	2 365.4	4 780.3	140.6	662.1
New Industry 2493, Reconstituted Wood Products	162	11.7	257.1	9.2	18.9	182.3	614.7	708.5	1 324.6	59.1	152.9
New Industry 2499, Wood Products, N.E.C.	3 324	56.1	824.2	46.4	88.5	576.7	1 726.0	1 587.0	3 295.5	74.3	489.8
New Industry 3089, Plastics Products, N.E.C.	8	1.4	31.6	1.0	1.7	22.6	86.8	72.0	160.2	7.2	19.4
Old Industry 2661, Building Paper and Board Mills	17	2.2	59.6	1.8	3.7	43.8	108.3	183.3	294.0	11.8	29.9
New Industry 2493, Reconstituted Wood Products	9	1.4	36.1	1.1	2.3	25.1	73.3	89.4	165.3	6.6	17.3
New Industry 2621, Paper Mills	8	.8	23.5	.6	1.4	18.7	35.0	93.8	128.7	5.3	12.7

Note: For qualifications of data, see footnotes on table 1a.

Table 2. Industry Statistics for Selected States: 1987 and 1982

[Excludes data for auxiliaries. States with 150 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry and geographic area	E ¹	1987										1982		
		All establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	All employees ² (1,000)	Value added by manufacture (million dollars)
		Total (no.)	With 20 employees or more (no.)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK														
United States	E1	308	95	5.9	84.7	4.9	9.0	57.4	146.5	182.0	325.0	5.5	6.4	137.9
California	E1	64	22	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.5	35.2
Florida	-	9	4	.3	2.9	.2	.4	2.1	5.2	6.9	12.1	(D)	.2	2.4
Michigan	-	14	5	.3	3.4	.2	.4	2.2	7.7	7.2	14.4	(D)	.2	4.3
Minnesota	-	6	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Mississippi	E4	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
New York	E1	20	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.2
North Carolina	EE3	13	5	.3	3.0	.2	.3	1.8	5.6	6.9	12.5	(D)	.3	4.2
Ohio	EE3	16	4	.2	2.9	.2	.4	2.1	5.2	6.1	11.4	(D)	.2	5.1
Oregon	EE2	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Pennsylvania	EE2	15	6	.3	4.3	.2	.4	2.8	7.4	7.0	14.4	(D)	.2	2.6
Texas	E2	16	7	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	10.0
Washington	-	8	3	.3	5.7	.2	.4	4.0	8.0	17.1	24.8	.6	.5	20.0
Wisconsin	-	12	5	.3	3.9	.2	.4	2.9	6.2	5.5	11.6	.4	.2	3.9
INDUSTRY 2448, WOOD PALLETS AND SKIDS														
United States	E2	1 701	415	25.7	326.0	21.7	38.0	237.9	616.8	880.2	1 496.1	43.8	22.1	420.5
Alabama	E3	45	12	.8	9.0	.7	1.2	7.3	18.1	24.4	42.3	(D)	.4	5.7
Arkansas	-	29	11	.6	6.7	.5	.9	5.7	11.2	21.7	33.1	(D)	.5	7.8
California	E1	96	35	2.3	34.8	1.9	3.5	25.2	61.5	103.3	164.7	(D)	1.7	36.9
Connecticut	E2	13	5	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.3
Florida	-	21	7	.4	5.1	.4	.6	4.0	9.5	16.0	25.3	.8	.3	7.2
Georgia	E1	57	14	.9	10.2	.7	1.3	7.4	19.0	22.7	41.6	1.3	.9	14.7
Illinois	E2	84	20	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	15.4
Indiana	E1	96	17	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	15.3
Iowa	E2	33	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
Kentucky	E2	82	20	1.0	10.3	.8	1.4	7.3	21.5	28.9	50.4	(D)	1.0	15.9
Maine	E1	12	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Maryland	E3	12	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Massachusetts	E2	31	6	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	6.5
Michigan	E1	116	23	1.8	21.5	1.4	2.5	15.0	45.2	61.2	106.8	(D)	1.3	28.9
Minnesota	E4	25	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	5.0
Mississippi	E1	31	10	.7	7.4	.6	1.0	6.0	17.2	19.2	36.6	.5	.5	8.7
Missouri	E2	72	22	1.1	12.3	.9	1.7	9.3	23.8	34.3	58.1	1.4	1.2	17.5
New Jersey	E2	31	4	.3	4.6	.2	.5	3.1	10.5	12.8	23.3	.4	.4	6.7
New York	E1	57	14	1.0	13.6	.9	1.5	10.2	19.3	30.6	50.0	2.4	.9	19.1
North Carolina	E2	54	15	1.0	12.7	.8	1.3	8.2	23.4	31.2	54.8	(D)	.8	15.2
Ohio	E3	144	28	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.4	27.0
Oregon	E3	17	4	.3	3.2	.2	.3	1.8	7.3	10.5	17.9	.2	.2	3.8
Pennsylvania	E2	132	26	1.5	20.0	1.3	2.4	14.7	36.7	64.2	100.8	6.2	1.4	32.3
South Carolina	E1	32	4	.3	3.0	.2	.4	2.1	6.0	8.2	14.3	(D)	.3	4.4
Tennessee	E2	79	16	1.0	12.6	.9	1.5	8.9	23.9	31.2	54.9	(D)	.7	13.2
Texas	E1	63	21	1.5	17.5	1.3	2.2	12.7	30.2	42.9	72.9	(D)	1.2	20.8
Virginia	E1	46	17	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.2	21.5
Washington	-	18	7	.4	5.9	.4	.6	4.0	11.4	15.1	26.4	.4	BB	(D)
West Virginia	E2	12	4	.4	4.4	.3	.5	3.1	10.5	12.8	23.3	.4	.4	6.7
Wisconsin	E1	75	25	1.4	18.4	1.2	2.0	13.0	34.0	48.6	80.2	2.1	1.1	20.4

See footnotes at end of table.

Table 2. Industry Statistics for Selected States: 1987 and 1982—Con.

[Excludes data for auxiliaries. States with 150 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry and geographic area	1987							1982						
	All establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	All employees ² (1,000)	Value added by manufacture (million dollars)	
	Total (no.)	With 20 employees or more (no.)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.														
United States	E1	208	51	5.4	70.4	4.7	8.6	50.4	111.6	136.2	248.3	2.6	7.4	144.6
Alabama	E1	8	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
Arkansas	E1	8	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)
California	E3	44	6	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	8.0
Florida	E1	7	3	3	3.0	.3	4	2.0	3.7	12.4	16.0	(D)	(D)	10.2
Georgia	E1	4	3	7	9.1	.7	1.4	6.8	15.7	14.1	29.8	(D)	CC	(D)
Kentucky	E1	6	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5
Mississippi	E1	3	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
Missouri	E1	6	2	3	3.1	.2	.2	1.6	4.6	4.8	9.8	(D)	BB	(D)
North Carolina	E1	13	4	7	7.2	.8	1.2	6.0	9.0	11.8	21.5	(D)	1.0	19.8
South Carolina	E1	5	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
Tennessee	E1	5	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	7.5
Wisconsin	E1	6	3	2	5.2	.2	.3	3.5	9.2	4.5	13.5	(D)	.3	7.6
INDUSTRY 2491, WOOD PRESERVING														
United States	E1	540	202	11.8	207.7	9.1	18.2	140.6	552.6	1 620.1	2 169.6	44.1	10.9	383.7
Alabama	E1	30	16	1.0	15.9	.8	1.4	10.8	41.2	153.4	194.6	2.9	.8	25.7
Arkansas	E1	19	7	4	7.4	.4	.8	4.8	12.8	48.6	65.8	(D)	.5	20.3
California	E2	35	9	6	12.0	.4	.8	7.7	31.0	59.8	91.8	(D)	.4	21.8
Florida	E1	22	9	3	6.1	.3	.4	4.0	11.7	49.1	61.0	.7	.5	9.0
Georgia	E1	30	14	.8	14.1	.6	1.4	9.7	38.1	100.6	138.3	1.9	1.0	33.9
Idaho	E5	11	3	2	2.7	.1	.2	1.8	7.5	15.7	23.6	.3	(NA)	(NA)
Illinois	E3	12	5	2	4.9	.2	.4	3.4	11.5	39.1	48.5	(D)	.2	11.5
Indiana	E3	12	4	2	3.1	.1	.3	2.0	11.1	26.0	37.9	(D)	(D)	(D)
Kentucky	E5	9	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
Louisiana	E2	16	8	3	4.9	.3	.5	3.5	14.3	31.1	45.9	.6	.4	11.7
Maryland	E1	6	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Michigan	E2	14	2	2	2.5	.1	.2	1.4	7.5	14.5	21.2	(D)	(NA)	(NA)
Minnesota	E2	13	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)
Mississippi	E1	26	13	7	12.7	.5	1.2	8.6	33.1	77.0	111.8	(D)	AA	(D)
Missouri	E1	13	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	8.4
New York	E1	9	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
North Carolina	E1	36	10	6	9.3	.4	.9	6.3	39.8	154.0	191.5	(D)	BB	(D)
Ohio	E2	14	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
Oregon	E3	17	10	6	9.7	.4	.8	7.8	27.2	38.3	64.9	1.1	.4	13.5
Pennsylvania	E1	23	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
South Carolina	E1	14	7	.8	14.3	.6	1.2	9.5	27.5	131.1	159.1	4.1	BB	(D)
Tennessee	E1	7	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.9
Texas	E2	25	8	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
Virginia	E1	25	15	1.0	17.1	.7	1.5	11.0	49.0	184.7	229.0	4.0	.7	31.2
Washington	E1	16	10	.5	12.5	.4	.8	8.6	25.4	69.9	95.6	1.7	.6	23.3
West Virginia	E1	9	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	8.4
Wisconsin	E1	13	5	2	4.0	.2	.3	2.8	11.1	32.0	42.0	(D)	.2	5.2
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS														
United States	E1	240	154	22.0	504.5	17.7	37.1	370.4	1 371.1	1 488.9	2 864.9	149.9	(NA)	(NA)
Alabama	E1	10	3	.3	7.9	.3	.6	5.0	29.8	23.5	53.3	2.0	(NA)	(NA)
Arkansas	E1	3	3	4	8.7	.3	.6	6.2	21.1	18.4	39.2	(D)	(NA)	(NA)
California	E1	28	13	1.3	32.4	1.1	2.3	24.2	82.0	120.7	205.7	(D)	(NA)	(NA)
Colorado	E1	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Florida	E1	15	4	2	2.5	.2	.3	1.9	4.8	8.6	13.8	.2	(NA)	(NA)
Georgia	E1	7	5	.6	12.5	.5	1.0	9.7	42.8	47.2	90.6	2.8	(NA)	(NA)
Idaho	E1	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Illinois	E1	9	6	7	11.2	.6	1.1	7.3	21.3	18.2	40.4	1.1	(NA)	(NA)
Indiana	E1	5	4	3	4.8	.3	.4	2.9	8.3	7.9	15.3	(D)	(NA)	(NA)
Louisiana	E1	6	5	.8	18.3	.6	1.3	13.6	33.1	47.1	80.8	5.8	(NA)	(NA)
Maine	E1	4	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Michigan	E1	14	9	1.3	34.2	1.0	2.1	22.6	89.6	103.4	193.6	(D)	(NA)	(NA)
Minnesota	E1	9	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Mississippi	E1	7	7	1.9	44.5	1.5	3.1	32.4	81.9	102.6	189.8	(D)	(NA)	(NA)
Montana	E1	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
New Hampshire	E1	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
New Jersey	E1	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
New Mexico	E1	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
North Carolina	E1	17	15	2.2	44.2	1.6	3.6	30.3	91.4	129.2	218.6	14.4	(NA)	(NA)
North Dakota	E1	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Ohio	E3	5	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Oklahoma	E3	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
Oregon	E3	24	20	2.5	65.2	2.0	4.3	49.3	192.6	219.7	411.6	9.6	(NA)	(NA)
Pennsylvania	E1	9	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
South Carolina	E1	6	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
South Dakota	E1	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Texas	E1	7	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Virginia	E1	9	9	1.5	33.7	1.3	2.8	25.6	80.1	93.2	184.1	11.3	(NA)	(NA)
Wisconsin	E1	6	5	.6	15.9	.5	1.1	12.2	54.6	39.0	92.4	(D)	(NA)	(NA)

See footnotes at end of table.

Table 2. Industry Statistics for Selected States: 1987 and 1982—Con.

[Excludes data for auxiliaries. States with 150 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry and geographic area	1987											1982		
	E ¹	All establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	All employees ² (1,000)	Value added by manufacture (million dollars)
		Total (no.)	With 20 employees or more (no.)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.														
United States	E3	3 324	671	56.1	824.2	46.4	86.5	576.7	1 726.0	1 587.0	3 295.5	74.3	(NA)	(NA)
Alabama	E1	74	11	1.0	14.5	.8	1.7	10.6	29.3	34.1	63.3	1.2	(NA)	(NA)
Arizona	E3	35	3	.3	4.1	.3	.5	2.5	8.2	7.8	15.2	(D)	(NA)	(NA)
Arkansas	E2	62	14	1.5	16.7	1.3	2.7	12.9	35.9	35.4	72.7	2.9	(NA)	(NA)
California	E3	369	81	7.0	105.6	5.7	11.0	72.3	210.5	239.0	447.2	11.8	(NA)	(NA)
Colorado	E5	36	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Connecticut	E2	42	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Florida	E4	124	20	1.3	17.8	1.1	2.1	13.3	40.6	39.0	79.6	1.7	(NA)	(NA)
Georgia	E5	92	12	1.7	25.6	1.4	2.6	18.4	55.1	52.0	106.5	1.9	(NA)	(NA)
Idaho	E3	30	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Illinois	E3	126	33	2.7	37.3	2.2	4.2	25.7	83.8	65.1	147.4	(D)	(NA)	(NA)
Indiana	E1	79	17	1.4	19.8	1.1	2.0	13.7	37.7	36.3	75.4	(D)	(NA)	(NA)
Iowa	E1	26	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Kansas	E3	15	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Kentucky	E1	35	6	.5	6.3	.4	.8	4.1	16.3	14.0	30.1	.6	(NA)	(NA)
Louisiana	E3	36	3	.2	2.6	.2	.3	1.9	6.5	9.0	15.4	.2	(NA)	(NA)
Maine	E1	85	32	3.5	51.9	2.9	5.1	39.8	102.5	66.1	167.7	4.5	(NA)	(NA)
Maryland	E6	29	6	.6	8.8	.5	.9	6.7	18.6	22.7	41.0	(D)	(NA)	(NA)
Massachusetts	E3	85	16	1.4	26.5	1.1	2.2	17.6	41.8	51.7	92.6	1.4	(NA)	(NA)
Michigan	E3	119	25	1.6	25.9	1.3	2.4	17.1	58.8	42.7	100.5	(D)	(NA)	(NA)
Minnesota	E2	57	12	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Mississippi	E2	63	13	2.1	27.9	1.8	3.4	18.0	66.0	57.5	121.0	3.8	(NA)	(NA)
Missouri	E4	87	24	1.4	17.0	1.2	2.2	12.7	39.7	37.5	77.2	1.3	(NA)	(NA)
New Hampshire	E4	67	18	1.1	17.0	.9	1.8	11.6	34.1	29.1	62.8	(D)	(NA)	(NA)
New Jersey	E2	60	11	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
New Mexico	E4	10	5	.2	2.5	.2	.3	1.9	5.3	4.2	9.3	.1	(NA)	(NA)
New York	E5	199	51	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
North Carolina	E2	149	41	3.1	48.8	2.5	4.5	31.6	113.2	81.5	190.3	5.0	(NA)	(NA)
Ohio	E2	124	27	2.3	36.4	1.9	3.4	26.1	81.4	71.4	152.7	(D)	(NA)	(NA)
Oklahoma	E4	21	3	.2	2.2	.2	.3	1.4	4.3	5.7	9.9	(D)	(NA)	(NA)
Oregon	E4	118	18	1.0	13.9	.9	1.5	10.4	28.2	26.1	54.1	.9	(NA)	(NA)
Pennsylvania	E3	149	22	1.8	28.4	1.5	2.7	20.6	53.2	52.3	105.6	3.4	(NA)	(NA)
Rhode Island	E1	18	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
South Carolina	E3	46	10	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Tennessee	E3	79	20	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Texas	E2	163	30	3.3	48.6	2.9	5.8	36.1	96.5	104.9	199.6	2.8	(NA)	(NA)
Vermont	E1	33	10	.7	11.7	.6	1.2	8.5	20.0	22.0	42.3	(D)	(NA)	(NA)
Virginia	E3	81	18	1.6	22.3	1.3	2.4	15.8	46.3	36.5	81.1	2.4	(NA)	(NA)
Washington	E5	105	18	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
West Virginia	E7	27	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Wisconsin	E4	100	11	1.0	13.1	.7	1.4	9.1	29.0	23.7	52.3	(D)	(NA)	(NA)

Note: For qualifications of data, see footnotes on table 1a.

¹Payroll and sales data for some small single-unit 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 the items shown 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 for those States where estimated value of shipments data based on administrative-record data account for 10 percent or more of figure shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²Statistics for some producing States have been withheld to avoid disclosing data for individual companies. However, for States with 150 employees or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: AA—150 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 3a. Summary Statistics for the Industry: 1987

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

Item	Nailed wood boxes and shooks (SIC 2441)	Wood pallets and skids (SIC 2448)	Wood containers, n.e.c. (SIC 2449)	Wood preserving (SIC 2491)	Reconstituted wood products (SIC 2493)	Wood products, n.e.c. (SIC 2499)
Companies	304	1 678	198	456	158	3 223
All establishments	308	1 701	208	540	240	3 324
With 1 to 19 employees	213	1 286	157	338	86	2 653
With 20 to 99 employees	89	398	32	184	63	579
With 100 employees or more	6	17	19	18	91	92
Employment and labor costs:						
Employees	5.9	25.7	5.4	11.8	22.0	56.1
Compensation, total	101.3	384.3	81.5	255.0	618.0	990.2
Annual payroll	84.7	328.0	70.4	207.7	504.5	824.2
Fringe benefits	16.6	56.3	11.2	47.2	113.5	166.0
Social Security and other legally required payments	8.2	34.4	6.5	23.5	53.5	88.2
Employer payments and other programs	8.4	21.9	4.7	23.8	60.0	77.8

See footnotes at end of table.

*Q. 25-3526
SMV*

Table 3a. Summary Statistics for the Industry: 1987—Con.

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

Item	Nailed wood boxes and shooks (SIC 2441)	Wood pallets and skids (SIC 2448)	Wood containers, n.e.c. (SIC 2449)	Wood preserving (SIC 2491)	Reconstituted wood products (SIC 2493)	Wood products, n.e.c. (SIC 2499)
Production workers:						
Average for year .....1,000..	4.9	21.7	4.7	9.1	17.7	46.4
March.....do..	4.7	21.3	4.7	9.1	17.5	46.0
May.....do..	5.0	21.6	4.8	9.3	17.8	45.8
August.....do..	5.1	21.8	4.8	9.2	17.8	46.3
November.....do..	4.8	21.5	4.5	8.6	17.6	46.7
Hours.....millions..	9.0	38.0	8.8	18.2	37.1	86.5
January to March.....do..	2.1	9.3	2.1	4.5	9.0	21.4
April to June.....do..	2.4	9.5	2.2	4.7	9.4	21.6
July to September.....do..	2.4	9.7	2.2	4.7	9.5	21.6
October to December.....do..	2.1	9.5	2.1	4.4	9.2	22.0
Wages.....mil dol..	57.4	237.9	50.4	140.6	370.4	576.7
Value added by manufacture.....do..	146.5	616.8	111.8	552.6	1 371.1	1 726.0
Cost of materials ¹.....do..	182.0	880.2	136.2	1 620.1	1 488.9	1 587.0
Materials, parts, containers, etc., consumed ².....do..	158.5	811.0	118.6	1 548.1	1 210.7	1 388.7
Resales.....do..	15.0	23.1	11.7	21.3	29.7	79.8
Fuels.....do..	1.9	8.6	1.3	21.7	70.3	30.5
Purchased electricity.....do..	3.6	22.2	3.7	16.1	165.1	68.3
Contract work.....do..	2.9	15.3	.9	13.0	13.1	19.6
Quantity of electric energy used for heat and power:						
Purchased.....mil kWh..	62.6	453.6	71.3	333.1	3 763.1	1 354.7
Generated less sold.....do..	-	-	-	(D)	(D)	(D)
Total value of shipments.....mil dol..	325.0	1 496.1	248.3	2 169.6	2 864.9	3 295.5
Primary products.....do..	274.7	1 352.8	210.8	2 051.7	2 763.5	2 983.3
Secondary products.....do..	28.8	99.7	18.5	89.2	42.2	144.5
Miscellaneous receipts, total.....do..	21.5	43.5	19.0	48.8	59.2	167.7
Value of resales.....do..	18.2	26.1	12.7	27.0	49.8	124.7
Contract receipts.....do..	1.5	3.9	5.1	10.9	1.6	27.4
Other miscellaneous receipts.....do..	3.8	13.5	1.2	11.0	7.8	15.6
Inventories by stage of fabrication:						
Beginning of 1987.....mil dol..	31.8	103.6	45.1	365.8	258.3	462.9
Finished goods.....do..	8.4	21.5	12.0	177.7	123.8	207.4
Work in process.....do..	7.0	18.5	4.7	117.2	27.6	85.7
Materials and supplies.....do..	16.4	63.6	28.4	70.9	106.8	169.8
End of 1987.....do..	37.0	115.6	39.9	365.5	257.2	489.8
Finished goods.....do..	11.1	22.1	11.8	177.3	117.8	222.0
Work in process.....do..	7.8	18.8	4.3	120.7	26.6	86.6
Materials and supplies.....do..	18.2	74.6	23.8	67.5	110.8	179.2
Primary product specialization ratio.....percent..	91	93	92	97	98	95
Coverage ratio.....do..	79	84	98	95	95	94

Note: For qualifications of data, see footnotes on table 1a.

¹Data on purchased services for the repair of buildings and machinery and for communication services are not included in cost of materials, etc., but are shown in table 3c.

²Data on materials consumed by type are shown in table 7. Data on amount purchased or transferred from foreign sources are shown in table 3c.

Table 3b. Gross Book Value of Depreciable Assets, Capital Expenditures, Retirements, Depreciation, and Rental Payments: 1987

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

Item	Nailed wood boxes and shooks (SIC 2441)	Wood pallets and skids (SIC 2448)	Wood containers, n.e.c. (SIC 2449)	Wood preserving (SIC 2491)	Reconstituted wood products (SIC 2493)	Wood products, n.e.c. (SIC 2499)
Gross book value of depreciable assets:						
Total:						
Beginning of year.....	75.5	426.1	79.7	534.8	2 297.4	967.8
New capital expenditures ¹	5.5	43.8	2.6	44.1	149.9	74.3
Used capital expenditures.....	2.5	9.3	1.8	5.0	6.9	14.3
Retirements.....	3.7	14.8	7.3	68.7	117.7	25.3
End of year.....	79.8	464.5	77.1	515.2	2 336.6	1 031.1
Buildings and other structures:						
Beginning of year.....	17.2	75.6	19.0	60.6	372.2	220.6
New capital expenditures.....	1.6	6.5	.9	5.8	11.4	13.6
Used capital expenditures.....	.5	1.6	.4	1.0	1.5	3.4
Retirements.....	.4	1.9	2.3	4.4	19.6	4.2
End of year.....	18.9	81.8	17.9	63.0	365.5	233.5
Machinery and equipment:						
Beginning of year.....	58.2	350.5	60.8	474.2	1 925.2	747.1
New capital expenditures ¹	3.9	37.3	2.0	38.3	136.6	60.7
Used capital expenditures.....	2.0	7.7	1.4	4.0	5.4	10.9
Retirements.....	3.2	12.9	5.0	64.4	98.1	21.1
End of year.....	60.9	382.7	59.1	452.2	1 971.1	797.6
Depreciation charges during 1987:						
Total:	6.4	41.9	6.0	36.6	157.4	67.5
Buildings and other structures.....	.9	3.9	.8	3.8	17.0	10.3
Machinery and equipment.....	5.5	38.0	5.2	32.9	140.4	57.2
Rental payments:						
Total:	4.6	13.4	1.4	9.6	11.4	32.4
Buildings and other structures.....	2.2	5.7	.5	3.2	4.9	15.2
Machinery and equipment.....	2.3	7.7	.9	6.4	6.6	17.3

Note: Retirements and depreciation data for establishments not included in the ASM sample were extrapolated from the historical ratio of retirements or depreciation to assets. These ratios were developed at the industry level.

¹Data on new machinery and equipment expenditures by type are provided in table 3c.

Table 3c. Supplemental Industry Statistics Based on Sample Estimates: 1987

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

Item	Nailed wood boxes and shoo (SIC 2441)		Wood pallets and skids (SIC 2448)		Wood containers, n.e.c. (SIC 2449)	
	Amount (million dollars)	Relative standard error of estimate ¹ (percent)	Amount (million dollars)	Relative standard error of estimate ¹ (percent)	Amount (million dollars)	Relative standard error of estimate ¹ (percent)
Purchased services:						
Cost of purchased services for the repair of-						
Buildings and other structures	.5	(X)	2.0	(X)	(S)	(X)
Response coverage ratio (percent) ²	67.4	(X)	51.5	(X)	(S)	(X)
Machinery	1.9	(X)	(S)	(X)	(S)	(X)
Response coverage ratio (percent) ²	67.4	(X)	(S)	(X)	(S)	(X)
Cost of purchased communication services	.7	(X)	(S)	(X)	(S)	(X)
Response coverage ratio (percent) ²	63.7	(X)	(S)	(X)	(S)	(X)
New machinery and equipment expenditures	3.9	(X)	37.3	(X)	2.0	(X)
Automobiles, trucks, etc. for highway use	1.2	26	(S)	(S)	(S)	(S)
Computers and peripheral data processing equipment	.3	32	(S)	(S)	(S)	(S)
All other	2.4	16	(S)	(S)	(S)	(S)
Adjustment ratio ³	1.2	(X)	(S)	(X)	(S)	(X)
Cost of materials, components, parts, etc., used	158.5	(X)	811.0	(X)	118.6	(X)
Materials purchased or transferred from foreign sources ⁴	.6	57	6.5	22	(S)	(S)
Materials purchased or transferred from domestic sources	157.9	1	804.5	1	(S)	(S)
Adjustment ratio ³	1.3	(X)	1.9	(X)	(S)	(X)
Item	Wood preserving (SIC 2491)		Reconstituted wood products (SIC 2493)		Wood products, n.e.c. (SIC 2499)	
	Amount (million dollars)	Relative standard error of estimate ¹ (percent)	Amount (million dollars)	Relative standard error of estimate ¹ (percent)	Amount (million dollars)	Relative standard error of estimate ¹ (percent)
Purchased services:						
Cost of purchased services for the repair of-						
Buildings and other structures	1.1	(X)	3.1	(X)	2.8	(X)
Response coverage ratio (percent) ²	56.6	(X)	72.4	(X)	53.6	(X)
Machinery	8.9	(X)	23.2	(X)	11.5	(X)
Response coverage ratio (percent) ²	58.5	(X)	78.1	(X)	53.6	(X)
Cost of purchased communication services	2.5	(X)	3.4	(X)	4.8	(X)
Response coverage ratio (percent) ²	56.2	(X)	74.9	(X)	50.4	(X)
New machinery and equipment expenditures	38.3	(X)	138.6	(X)	60.7	(X)
Automobiles, trucks, etc. for highway use	2.1	37	1.1	14	(S)	(S)
Computers and peripheral data processing equipment	.4	11	1.5	11	(S)	(S)
All other	35.8	3	136.0	1	(S)	(S)
Adjustment ratio ³	1.5	(X)	1.1	(X)	(S)	(X)
Cost of materials, components, parts, etc., used	1 548.1	(X)	1 210.7	(X)	1 388.7	(X)
Materials purchased or transferred from foreign sources ⁴	.6	12	39.7	14	87.7	24
Materials purchased or transferred from domestic sources	1 547.5	1	1 170.9	1	1 301.0	3
Adjustment ratio ³	1.9	(X)	1.4	(X)	2.0	(X)

¹For description of relative standard error of estimate, see Qualifications of the Data in appendixes.

²Measure of extent to which respondents reported each item. Derived for each item by calculating the ratio of weighted employment for those sample establishments that reported the specific inquiry to total employment for all establishments classified in industry. (See appendixes for explanation of sample weight.)

³Detail has been adjusted upwards to account for nonresponse. Inverse of the ratio shown represents a measure of the response to the inquiry. (See appendixes for further explanation.)

⁴Data may understate the true cost of imported parts, components, and supplies since some respondents do not know the origin of these materials. Includes cases where materials were purchased from secondary suppliers or where they were transferred from company-operated warehouses or other distribution points. Direct purchases from foreign suppliers and importers by domestic manufacturing establishments are believed to be reported accurately.

Table 4. Industry Statistics by Employment Size of Establishment: 1987

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

Industry and employment size class	E ¹	All establishments (no.)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
			Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK												
Total	E1	308	5.9	84.7	4.9	9.0	57.4	146.5	182.0	325.0	5.5	37.0
Establishments with an average of—												
1 to 4 employees	E8	100	.2	2.7	.2	.3	1.9	5.3	5.8	11.1	.2	.9
5 to 9 employees	E3	53	.4	5.8	.3	.5	4.1	11.7	9.4	21.1	.2	1.5
10 to 19 employees	E2	60	.8	11.3	.7	1.1	8.4	21.8	22.2	43.6	.4	3.7
20 to 49 employees	E11	63	1.9	27.3	1.6	3.1	18.3	45.4	55.2	100.8	2.4	9.7
50 to 99 employees	E1	26	1.8	25.9	1.5	2.9	17.1	45.6	60.9	105.6	1.4	10.9
100 to 249 employees	E1	6	.8	11.6	.6	1.2	7.6	16.7	28.4	42.8	.9	10.4
Covered by administrative records ²	E9	101	.3	3.2	.2	.4	2.1	6.6	7.3	13.9	.1	1.1

See footnotes at end of table.

Table 4. Industry Statistics by Employment Size of Establishment: 1987—Con.

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

Industry and employment size class	E ¹	All establishments (no.)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
			Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
INDUSTRY 2448, WOOD PALLETS AND SKIDS												
Total	E2	1 701	25.7	328.0	21.7	38.0	237.8	618.8	680.2	1 496.1	43.8	115.6
Establishments with an average of—												
1 to 4 employees	E8	521	1.1	11.7	1.0	1.4	8.1	22.7	32.9	55.6	1.0	3.8
5 to 9 employees	E4	378	2.6	27.2	2.2	3.5	20.1	54.2	76.1	130.3	6.8	8.6
10 to 19 employees	E2	389	5.3	64.6	4.4	7.7	47.7	127.9	178.2	305.8	7.9	20.3
20 to 49 employees	E1	322	9.7	125.3	8.1	14.5	89.3	244.4	328.2	571.6	15.4	52.3
50 to 99 employees	E1	76	5.0	69.5	4.2	7.8	50.9	118.1	178.5	296.4	9.0	21.3
100 to 249 employees	-	17	2.0	29.7	1.8	3.1	21.9	49.5	66.3	136.3	3.7	9.3
Covered by administrative records ²	E9	706	2.6	23.3	2.3	3.1	16.1	43.0	82.0	105.0	2.0	7.3
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.												
Total	E1	208	6.4	70.4	4.7	8.6	50.4	111.6	136.2	248.3	2.8	39.9
Establishments with an average of—												
1 to 4 employees	E9	83	.2	2.1	.1	.3	1.5	3.3	4.2	7.5	.1	.8
5 to 9 employees	E7	43	.3	3.9	.2	.4	2.7	6.3	7.5	13.8	.2	1.5
10 to 19 employees	E3	31	.4	6.2	.4	.6	4.0	9.5	13.2	22.6	.2	3.1
20 to 49 employees	E1	20	.6	9.1	.5	.9	5.4	9.7	29.9	40.1	.8	3.5
50 to 99 employees	-	12	.8	11.4	.7	1.3	8.0	17.5	10.1	27.7	.4	3.3
100 to 249 employees	-	16	2.2	26.4	1.9	3.6	20.0	47.0	51.1	98.5	.9	21.8
250 to 499 employees	-	3	.9	11.3	.8	1.6	8.7	16.2	20.2	36.1	.3	5.9
Covered by administrative records ²	E9	116	.4	4.9	.4	.6	3.4	7.6	10.0	17.6	.2	1.8
INDUSTRY 2491, WOOD PRESERVING												
Total	E1	540	11.8	207.7	9.1	18.2	140.6	552.6	1 620.1	2 169.6	44.1	365.5
Establishments with an average of—												
1 to 4 employees	E9	137	.3	4.5	.2	.4	2.9	10.7	28.0	38.9	.6	6.4
5 to 9 employees	E3	95	.6	10.2	.5	.9	6.6	32.8	85.1	118.3	1.9	14.8
10 to 19 employees	E2	106	1.5	25.2	1.1	2.2	17.3	76.8	195.6	270.0	3.9	45.5
20 to 49 employees	E1	141	4.4	76.0	3.4	6.6	50.2	222.3	654.9	870.0	17.4	153.5
50 to 99 employees	E1	43	2.8	53.7	2.2	4.7	37.1	133.5	329.7	473.1	11.8	79.4
100 to 249 employees	-	18	2.2	38.1	1.7	3.5	26.4	76.4	326.8	399.2	8.4	66.0
Covered by administrative records ²	E9	185	.8	9.1	.6	1.0	6.2	20.7	57.5	78.3	1.1	12.8
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS												
Total	-	240	22.0	504.5	17.7	37.1	370.4	1 371.1	1 488.9	2 864.9	149.9	257.2
Establishments with an average of—												
1 to 4 employees	E7	37	.1	1.2	.1	.1	.9	3.8	4.2	7.9	.1	1.1
5 to 9 employees	E4	20	.1	2.2	.1	.2	1.7	5.8	5.3	11.4	.3	1.1
10 to 19 employees	-	29	.4	8.0	.3	.6	4.8	19.0	29.9	47.9	1.1	5.8
20 to 49 employees	-	28	1.0	20.2	.8	1.5	12.3	63.8	81.8	145.4	2.8	13.6
50 to 99 employees	E2	35	2.6	58.4	2.1	4.6	42.1	169.8	201.2	370.2	12.9	36.6
100 to 249 employees	-	78	12.4	285.8	10.0	21.0	212.8	804.0	844.0	1 649.2	104.0	119.3
250 to 499 employees	-	11	5.4	128.7	4.4	9.2	95.9	304.8	322.5	633.0	29.9	79.7
500 to 999 employees	-	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1,000 to 2,499 employees	-	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Covered by administrative records ²	E9	26	.1	1.1	.1	.1	.8	2.3	2.4	4.7	.1	.6
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.												
Total	E3	3 324	56.1	824.2	46.4	86.5	576.7	1 726.0	1 587.0	3 295.5	74.3	489.8
Establishments with an average of—												
1 to 4 employees	E8	1 550	2.5	33.3	2.3	3.7	24.2	71.7	77.9	149.8	5.5	20.0
5 to 9 employees	E5	576	3.9	52.3	3.2	5.5	37.5	112.0	105.6	217.5	4.2	30.1
10 to 19 employees	E3	527	7.1	99.6	5.9	10.3	71.5	214.6	201.3	415.2	9.6	53.5
20 to 49 employees	E3	424	12.9	189.1	10.5	19.4	130.0	402.2	374.2	774.0	18.1	116.1
50 to 99 employees	E2	155	10.5	155.4	8.8	17.2	109.7	314.6	290.9	603.5	13.1	86.6
100 to 249 employees	E3	70	10.5	156.1	8.4	16.2	105.7	298.8	278.0	570.2	12.1	89.9
250 to 499 employees	E1	17	5.3	82.5	4.6	9.0	60.0	188.4	153.6	342.7	6.9	54.2
500 to 999 employees	-	5	3.3	55.9	2.8	5.3	38.0	123.5	105.4	222.6	4.9	39.2
Covered by administrative records ²	E9	1 700	4.7	49.8	4.2	6.0	35.7	106.7	111.8	220.5	3.2	29.8

Note: For qualifications of data, see footnotes on table 1a. Data shown as a (D) are included in underscored figures above.

¹Payroll and sales data for some small single unit 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 the items shown 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 for those employment-size classes where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²Report forms were not mailed to small single unit companies with up to 20 employees (cutoff varied by industry). Payroll and sales data for 1987 were obtained from administrative records supplied by other agencies of the Federal Government. Those data were then used in conjunction with industry averages to estimate the items shown. Data are also included in respective employment-size classes shown.

Table 5a. Industry Statistics by Industry and Primary Product Class Specialization: 1987

[Table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. Measures of plant specialization shown are (1) industry specialization: ratio of primary product shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment; and (2) product class specialization: ratio of largest primary product class shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment. See appendix for method of computing ratios. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry or product class code	Industry or primary product class	All establishments (number)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)
			Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
2441	Nailed wood boxes and shook: All establishments in industry	308	5.9	84.7	4.9	9.0	57.4	146.5	182.0	325.0	5.5
	Establishments with this product class primary:										
24411	Nailed or lock-corner wooden boxes	58	1.7	24.6	1.4	2.7	15.6	41.7	43.9	85.8	2.4
24412	Wooden box and crate shook	93	2.9	43.2	2.4	4.6	30.4	69.8	103.2	169.3	2.6
2448	Wood pallets and skids: All establishments in industry	1 701	25.7	328.0	21.7	38.0	237.9	616.8	880.2	1 496.1	43.8
2449	Wood containers, n.e.c.: All establishments in industry	208	5.4	70.4	4.7	8.6	50.4	111.6	136.2	248.3	2.8
2491	Wood preserving: All establishments in industry	540	11.8	207.7	9.1	18.2	140.6	552.6	1 620.1	2 168.6	44.1
	Establishments with this product class primary:										
24912	Wood poles, piles, and posts owned and treated by same establishment	75	3.0	58.6	2.3	4.9	40.3	140.2	322.7	470.2	11.8
24913	Other wood products owned and treated by same establishment	151	5.4	95.3	4.2	8.4	63.8	277.1	1 010.1	1 278.5	19.7
24919	Contract wood preserving	34	.9	15.7	.7	1.3	11.1	46.5	62.5	107.8	6.6
2493	Reconstituted wood products: All establishments in industry	240	22.0	504.5	17.7	37.1	370.4	1 371.1	1 488.9	2 864.9	149.9
	Establishments with this product class primary:										
24931	Particleboard, produced at this location	42	5.6	132.5	4.7	9.9	102.6	406.6	425.0	833.9	51.8
24932	Waterboard and oriented strand board	22	3.0	74.3	2.5	5.7	57.4	252.3	252.8	501.8	31.3
24933	Medium density fiberboard (mdf) produced at this location	15	2.3	48.8	1.8	3.7	36.7	136.0	145.5	282.7	20.4
24934	Hardboard products made from hardboard produced at this location	21	5.2	128.9	4.2	8.7	96.3	284.7	296.2	586.2	26.7
24935	Insulating board (fiberboard)	9	1.4	36.1	1.1	2.3	25.1	73.3	89.4	165.3	6.6
24936	Hardboard products made from purchased hardboard	37	2.1	42.4	1.6	3.2	25.8	109.2	127.4	235.1	3.3
24937	Prefinished particleboard and medium density fiberboard (mdf) made from purchased particleboard and mdf	58	2.0	35.1	1.6	3.1	22.1	78.6	133.0	210.4	8.5
2499	Wood products, n.e.c.: All establishments in industry	3 324	56.1	824.2	46.4	86.5	576.7	1 726.0	1 587.0	3 295.5	74.3
	Establishments with this product class primary:										
24991	Mirror and picture frames	165	10.2	150.8	8.5	16.8	103.7	358.1	301.5	652.3	12.9
24992	Cork and cork products	8	.3	6.3	.2	.4	4.1	13.7	17.9	31.3	1.1
24994	Miscellaneous wood products	634	25.0	396.5	20.5	39.9	278.3	769.4	712.5	1 471.5	39.4

Note: For qualifications of data, see footnotes on table 1a.

Table 5b. Industry-Product Analysis—Value of Shipments and Primary Product Shipments and Specialization and Coverage Ratios for the Industry: 1987 and Earlier Census Years

[An establishment is assigned to an industry based on shipment values of products representing largest amount considered primary to an industry. Frequently, establishment shipments comprise mixtures of products assigned to an industry (primary), those considered primary to other industries (secondary), and receipts for activities such as merchandising or contract work. Columns A-D show this product pattern for an industry, and column E shows primary product specialization ratio. The extent to which an industry's primary products are shipped by establishments classified in and out of an industry is shown in columns F-H and coverage ratio is shown in column I. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry and product group code	Industry and census year	Value of shipments					Value of primary product shipments				
		Total (million dollars)	Primary products (million dollars)	Secondary products (million dollars)	Miscellaneous receipts (million dollars)	Primary product specialization ratio col. B ÷ col. B + C (percent)	Total made in all industries (million dollars)	Made in this industry (million dollars)	Made in other industries (million dollars)	Coverage ratio col. B ÷ col. F (percent)	
		A	B	C	D	E	F	G	H	I	
2441	Nailed wood boxes and shook	1987..	325.0	274.7	28.8	21.5	91	347.6	274.7	72.9	79
	1982..	306.8	254.1	29.6	23.0	90	314.6	254.1	60.5	81	
	1977..	263.3	220.2	27.8	15.2	89	265.3	220.2	45.1	83	
2448	Wood pallets and skids	1987..	1 496.1	1 352.8	99.7	43.5	93	1 437.0	1 352.8	84.2	94
	1982..	1 012.3	904.9	73.9	33.5	92	969.7	904.9	64.8	93	
	1977..	698.0	587.9	63.5	46.6	90	642.9	587.9	55.0	91	
2449	Wood containers, n.e.c.	1987..	248.3	210.8	18.5	19.0	92	218.6	210.8	7.7	96
	1982..	315.8	286.4	15.2	14.2	95	295.6	286.4	9.2	97	
	1977..	255.8	228.5	16.1	11.1	93	235.3	228.5	6.8	97	
2491	Wood preserving	1987..	2 168.6	2 051.7	69.2	48.8	97	2 151.8	2 051.7	100.2	85
	1982..	1 360.2	1 269.6	26.7	63.9	98	1 325.0	1 269.6	55.4	96	
	1977..	962.6	869.2	25.8	67.6	97	892.2	869.2	23.0	97	
2493	Reconstituted wood products	1987..	2 864.9	2 763.5	42.2	59.2	98	2 896.4	2 763.5	132.8	95
2499	Wood products, n.e.c.	1987..	3 295.5	2 983.3	144.5	167.7	95	3 183.1	2 983.3	199.8	94

Table 6a-1. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982

(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 further explanation, see Value of Shipments in appendixes. For comparability of product classes and product codes between 1982 and 1987, see appendixes. For meaning of abbreviations and symbols, see introductory text.)

1987 product code	Product	1987			1982		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
2441-	NAILED WOOD BOXES AND SHOOK						
	Total	(NA)	(X)	347.6	(NA)	(X)	314.6
24411	Nailed or lock-corner wooden boxes	(NA)	(X)	97.6	(NA)	(X)	109.0
24411 27	Made from lumber	57	(S)	57.8	(NA)	(S)	64.0
24411 63	Made from veneer and plywood, and combination wood and fiber boxes, including wood and part wooden cigar boxes	45	(X)	38.1	(NA)	(S)	24.9
24411 00	Nailed or lock-corner wooden boxes, n.s.k.	(NA)	(X)	1.7	(NA)	(X)	20.0
24412	Wooden box and crate shook	(NA)	(X)	180.8	(NA)	(X)	156.2
	Made from lumber:						
24412 11	For fruits and vegetables	25	*74.4	31.3	25	*229.0	62.0
24412 15	For industrial and other uses	110	(S)	104.6	91	(S)	60.4
24412 25	Made from veneer and plywood for fruits, vegetables, meat, industrial, and other uses	33	(X)	39.6	34	(S)	24.6
24412 00	Wooden box and crate shook, n.s.k.	(NA)	(X)	5.2	(NA)	(X)	9.3
24410	Nailed wooden boxes and shook, n.s.k.	(NA)	(X)	69.2	(NA)	(X)	49.4
24410 00	Nailed wooden boxes and shook, n.s.k., typically for establishments with 5 employees or more (see note)	(NA)	(X)	55.2	(NA)	(X)	40.0
24410 02	Nailed wooden boxes and shook, n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	14.0	(NA)	(X)	9.4
2448-	WOOD PALLETS AND SKIDS						
	Total	(NA)	(X)	1 437.0	(NA)	(X)	969.7
24480	Pallets and skids:						
24480 62	Pallets, wooden, flat	640	(S)	820.5	582	(S)	511.8
24480 64	Pallet containers	49	(X)	49.2	35	(S)	37.7
24480 65	Skids, wooden	118	(X)	69.5	109	(S)	61.9
24480 66	Pallets and skids, wood and metal combination	49	(X)	59.8	54	(S)	49.6
24480 00	Wood pallets and skids, n.s.k., typically for establishments with 10 employees or more (see note)	(NA)	(X)	334.5	(NA)	(X)	224.1
24480 02	Wood pallets and skids, n.s.k., typically for establishments with less than 10 employees (see note)	(NA)	(X)	103.5	(NA)	(X)	84.6
2449-	WOOD CONTAINERS, N.E.C.						
	Total	(NA)	(X)	218.6	(NA)	(X)	295.6
24490	Wood containers, n.e.c.:						
24490 11	Wirebound boxes made from lumber	12	(S)	23.7	16	(S)	30.8
	Wirebound boxes made from veneer and plywood:						
24490 21	For fruits and vegetables	14	*52.2	66.2	15	55.6	60.4
24490 41	For meats and poultry (other than canned)	1	(Z)	2	4	2.4	4.2
24490 51	For industrial and other uses	7	(S)	19.7	10	(S)	30.4
24490 61	Veneer and plywood containers, including pails, drums, tubs, fruit and vegetable baskets, hampers, etc.	14	(S)	27.0	21	(S)	31.8
	Slack and tight cooperage:						
24490 71	Slack cooperage (hogsheads, barrels, kegs, etc., including recoopered used slack barrels and kegs)	3	(X)	8.8	6	(S)	20.6
24490 81	Tight cooperage (hogsheads, barrels, kegs, tubs, etc.), new and recoopered used	11	(S)	28.0	15	(S)	82.3
24490 00	Wood containers, n.e.c., n.s.k., typically for establishments with 10 employees or more (see note)	(NA)	(X)	27.4	(NA)	(X)	25.7
24490 02	Wood containers, n.e.c., n.s.k., typically for establishments with less than 10 employees (see note)	(NA)	(X)	17.6	(NA)	(X)	9.3
2491-	WOOD PRESERVING						
	Total	(NA)	(X)	2 151.9	(NA)	(X)	1 325.0
24912	Wood poles, piles, and posts owned and treated by same establishment	(NA)	(X)	478.2	(NA)	(X)	461.1
	Not more than 15 feet in length treated with:						
24912 01	Pentachlorophenol	14	(S)	31.5	51	(S)	78.2
24912 03	Arsenical chemicals	33	(S)	67.7			
24912 05	Creosote	13	(S)	16.5			
24912 07	Other chemicals	4	(S)	2.9			
	More than 15 feet in length treated with:						
24912 09	Pentachlorophenol	29	(S)	129.9	57	*4 371.7	340.5
24912 12	Arsenical chemicals	22	(S)	26.4			
24912 14	Creosote	20	*3 384.9	106.7			
24912 16	Other chemicals	8	**1 205.3	45.6			
24912 00	Wood poles, piles, and posts owned and treated by same establishment, n.s.k.	(NA)	(X)	51.0	(NA)	(X)	42.3

See footnotes at end of table.

Table 6a-1. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendixes. For comparability of product classes and product codes between 1982 and 1987, see appendixes. For meaning of abbreviations and symbols, see introductory text.]

1987 product code	Product	1987			1982		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
2491-	WOOD PRESERVING—Con.						
24913	Other wood products owned and treated by same establishment	(NA)	(X)	1 265.1	(NA)	(X)	617.4
	Railway cross ties and mine ties (except switch or bridge) treated with:						
24913 01	Creosote	20	*9	187.1	31	11	558.0
24913 03	Other chemicals	5					
24913 05	Lumber, rough and dressed, not edged, treated with:						
24913 07	Fire-retardant, interior and exterior	17	*58.2	27.5			
24913 09	Pentachlorophenol	13	(S)	26.2			
24913 12	Arsenical chemicals	79	**2	061.5	105	*1	063.3
24913 14	Other chemicals	22	(S)	138.4			
24913 15	Wood siding, flooring, other edged lumber	7	*116.2	46.2			
24913 17	Wood fence pickets, paling, and rails, whether or not assembled into fence sections	11	(X)	11.1	10	(X)	12.0
24913 19	Switch and bridge ties	14	(S)	16.2	11	(S)	11.1
24913 20	Other wood treated products, n.s.k., including plywood	24	(X)	49.0	12	(X)	25.2
	Other wood products owned and treated by same establishment, n.s.k.	(NA)	(X)	100.0	(NA)	(X)	54.0
24919	Contract wood preserving	(NA)	(X)	105.5			
	Contract wood treating service (receipts for treating wood owned by other establishments):						
24919 01	Fire-retardant, interior and exterior	14	(X)	9.4			
24919 03	Pentachlorophenol	9	(X)	2.9	60	(X)	94.9
24919 05	Arsenical chemicals	48	(X)	35.0			
24919 07	Creosote	14	(X)	43.3			
24919 09	Other chemicals	5	(X)	6.2			
24919 20	Contract wood preserving, n.s.k.	(NA)	(X)	8.7			
24910	Wood preserving, n.s.k.	(NA)	(X)	303.0	(NA)	(X)	151.6
24910 00	Wood preserving, n.s.k., typically for establishments with 10 employees or more (see note)	(NA)	(X)	225.5	(NA)	(X)	106.5
24910 02	Wood preserving, n.s.k., typically for establishments with less than 10 employees (see note)	(NA)	(X)	77.6	(NA)	(X)	45.1
2493-	RECONSTITUTED WOOD PRODUCTS						
	Total	(NA)	(X)	2 896.4	(NA)	(X)	1 704.1
24931	Particleboard, produced at this location	(NA)	(X)	849.1	(NA)	(X)	456.3
24931 03	Floor underlayment	9	694.8	129.2	14	702.7	93.8
24931 05	Mobile home decking	3	(D)	214.6	9	214.6	45.5
24931 07	Shelving	9	68.2	13.9	12	*52.7	10.1
24931 09	Door core	3	(D)		7	**155.2	26.3
24931 12	Other industrial board:						
	3/4 inch thick	17	922.6	206.4	19	592.2	128.3
24931 14	5/8 inch thick	12	552.7	124.2	16	279.8	65.0
24931 16	1/2 inch thick	12	237.7	54.5	16	139.0	28.8
24931 18	All other	14	602.8	142.2	19	*624.9	124.2
24931 19	Other (stepping, siding, etc.)	9	153.1	77.3	10	164.2	33.0
24931 20	Particleboard, produced at this location, n.s.k.	(NA)	(X)	36.6	(NA)	(X)	12.3
24932	Waferboard and oriented strand board:						
24932 00	Waferboard and oriented strand board	12	3 997.7	513.3	(?)	(?)	(?)
24933	Medium density fiberboard (MDF) produced at this location	(NA)	(X)	282.1	(NA)	(X)	131.3
	Not coated or prefinished:						
24933 14	Standard panel	12	741.1	233.8	7	*319.7	99.2
24933 15	Cut to size	10	119.3	48.3	5	*91.2	31.5
24933 18	Coated or prefinished	2					
24933 20	Medium density fiberboard (MDF) produced at this location, n.s.k.	(NA)	(X)		(NA)	(X)	.6
24934	Hardboard products made from hardboard produced at this location:						
24934 00	Hardboard products made from hardboard produced at this location (for additional detail, see table 6a-2)	12	573.7		(NA)	(X)	558.3
24935	Insulating board (fiberboard):						
24935 00	Insulating board (fiberboard), less than 31 lb per cubic foot (for additional detail, see table 6a-2)	10	205.4		10	(X)	188.9
24936	Hardboard products made from purchased hardboard	(NA)	(X)	206.4	(NA)	(X)	148.1
24936 14	Molded and cut to size (not face finished)	9	11.0	4		**83.6	16.8
24936 15	Other machined and cut, including perforated, panel stock, etc. (not face finished)	7	*274.5	41.4	5	(S)	16.7
24936 16	Coated or laminated hardboard:						
	Interior paneling	8	(S)	43.7	8	**536.3	44.5
24936 17	Other, including doorskins, garage door panels, furniture stock, and siding	16	(S)	46.2	13	212.5	39.1
24936 20	Hardboard products made from purchased hardboard, n.s.k.	(NA)	(X)	64.3	(NA)	(X)	31.0

See footnotes at end of table.

24C-18 WOODEN CONTAINERS & MISC. WOOD PRODS.

n.s.k. = not specified by kind

MANUFACTURES—INDUSTRY SERIES
 * Numbers shown below add up to 248
 Primary: 138

Table 6a-1. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

(Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendixes. For comparability of product classes and product codes between 1982 and 1987, see appendixes. For meaning of abbreviations and symbols, see introductory text.)

1987 product code	Product	1987			1982		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
2493--	RECONSTITUTED WOOD PRODUCTS—Con.						
24937 --	Prefinished particleboard and medium density fiberboard (MDF) made from purchased particleboard and MDF	(NA)	78 37.0 (X)	216.1	(NA)	(X)	110.3
24937 21	Prefinished particleboard made from purchased particleboard						
24937 31	Prefinished or coated medium density fiberboard (MDF) made from purchased MDF	51	**719.8	158.1	45	**768.0	98.4
24937 00	Prefinished particleboard and medium density fiberboard (MDF) made from particleboard and MDF, n.s.k.	23	**112.4	33.6	11	**29.2	11.9
24930 --	Reconstituted wood products, n.s.k.	(NA)	(X)	24.4	(NA)	(X)	-
24930 00	Reconstituted wood products, n.s.k., typically for establishments with 5 employees or more (see note)	(NA)	(X)	50.1	(NA)	(X)	(*)
24930 02	Reconstituted wood products, n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	45.5	(NA)	(X)	(*)
24930 02	Reconstituted wood products, n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	4.6	(NA)	(X)	(*)
2499--	WOOD PRODUCTS, N.E.C.						
	Total	(NA)	(X)	3 183.1	(NA)	(X)	2 304.8
24991 --	Mirror and picture frames	(NA)	(X)	605.1	(NA)	(X)	805.5
24991 11	Frames for mirrors and pictures:						
24991 11	Wood	110	(X)	237.5	71	(X)	144.6
24991 15	Metal	35	(X)	107.5	20	(X)	94.1
24991 31	Finished moldings for mirrors and pictures:						
24991 31	Wood	36	(S)	59.6	26	(S)	45.7
24991 41	Metal	10	(S)	13.7	9	(S)	44.7
24991 61	Framed pictures:						
24991 61	Wood	48	(X)	92.3	31	(X)	98.5
24991 71	Other than wood (metal, plastics, fiber)	28	(X)	48.2	17	(X)	50.8
24991 00	Mirror and picture frames, n.s.k.	(NA)	(X)	45.3	(NA)	(X)	27.1
24992 --	Cork and cork products:						
24992 00	Cork and cork products, including natural and waste and articles made of naturally granulated and composition cork	16	(X)	43.3	19	(X)	40.9
24994 --	Miscellaneous wood products	(NA)	(X)	1 423.8	(NA)	(X)	1 164.8
24994 11	Jewelry boxes, silverware chests, instrument cases, cigar and cigarette boxes, microscope cases, tool or utensil cases, and similar boxes, and cases; and chests	29	(X)	24.9	27	(X)	25.9
24994 14	Wood statuettes and other ornaments (including ash trays, bookends, etc.)	39	(X)	49.6	(NA)	(X)	96.3
24994 16	Wood tableware and kitchenware	29	(X)	42.8			
24994 17	Wood fences, palings, and rails assembled into fence sections	38	(X)	44.5	37	(X)	19.3
24994 19	Toothpicks, skewers, candy sticks, ice cream sticks, tongue depressors, drink mixers, and similar small wares	10	(X)	57.8	10	(X)	43.5
24994 23	Firewood and fuel wood containing an added binder, including compressed logs	10	(X)	52.2	12	(X)	17.8
24994 25	Bamboo, rattan, willow and chip, basketwork, wicker work, and related products of fibrous vegetable substances	12	(X)	48.5	7	(X)	11.7
24994 41	Lasts for boots and shoes, wood and other materials; remodeled last sole patterns, forms, shoe trees; and stretchers for boots and shoes	7	(X)	19.7	11	(X)	9.0
24994 51	Handtool handles:						
24994 51	Striking tool handles (axe, pick, hammer, etc.)	17	(X)	33.0	19	(X)	31.7
24994 54	Other handtool handles including spade, shovel, rake, scythe, and other mechanics, farm, garden, household, etc.	20	(X)	25.9	18	(X)	16.7
24994 57	Broom, mop, and paintbrush handles	16	(X)	30.4	22	(X)	32.3
24994 58	Other handles: wooden tools, tool bodies, and backs for brooms, mops, and brushes	12	(X)	18.6	26	(X)	20.8
24994 61	Clothespins	3	(D)	(D)	4	(S)	12.5
24994 62	Dowels and dowel pins (plain or sanded, grooved, or otherwise advanced in condition)	29	(X)	53.2	27	(X)	93.7
24994 71	Stepladders	20	14.7 (X)	49.0	23	(S)	38.1
24994 75	Rung ladders (nonextension, extension, and scaffolding ladders)	17	(S)	32.5	22	(S)	19.0
24994 79	Other scaffolding equipment (horses, scaffold jacks, extension planks, window jacks, etc.)	-	(X)	(D)	5	(X)	(*)
24994 85	Wooden reels for wire and cable	34	(X)	119.0	26	(X)	102.2
24994 89	Wood flour	9	(S)	21.7	10	(S)	9.2
24994 91	Other fabricated industrial parts, except hardwood furniture parts	29	(S)	26.4	8	(S)	23.0
24994 97	Wood toilet seats, including molded wood	6	(D)	(D)	9	(S)	32.0
24994 99	Miscellaneous wooden products, n.e.c., including articles of wood, not elsewhere specified, and wood turnings (except handles)	401	(X)	542.2	421	(X)	4401.2
24994 00	Miscellaneous wooden products, n.e.c., n.s.k.	(NA)	(X)	86.3	(NA)	(X)	98.9
24990 --	Wood products, n.e.c., n.s.k.	(NA)	(X)	1 111.0	(NA)	(X)	593.6
24990 00	Wood products, n.e.c., n.s.k., typically for establishments with 5 employees or more (see note)	(NA)	(X)	887.4	(NA)	(X)	463.3
24990 02	Wood products, n.e.c., n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	223.6	(NA)	(X)	140.3

See footnotes at end of table.

Table 6a-1. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

Note: In 1987 Census of Manufactures, data for establishments of small single-unit companies with up to 20 employees were estimated from administrative-record data rather than data actually collected from respondents. Employment cutoffs used for administrative records for each industry and shipments figures are included in code ending with "002". In both 1987 and 1982 Censuses of Manufactures, products not completely identified on standard forms were coded in appropriate product class (five-digit) followed by "00" or to appropriate product group code (four-digit) followed by "000".

*Data reported by all producers, not just those with shipments of \$100,000 or more.
 **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: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).
 †For 1982, manufacture of waterboard and orientated strand board was included with particleboard industry.
 ‡Data for 1987 and 1982 are not wholly comparable at the four-digit product code level due to the 1987 Standard Industrial Classification which created new Industry 2493, Reconstituted Wood Products, out of old Industry 2492, Particleboard, and parts of old Industries 2499, Wood Products, N.E.C., and 2661, Building Paper and Board Mills. Accordingly, for 1982, the "n.s.k." product codes 24930 00 and 24930 02 are combined with product codes 24990 00 and 24990 02.
 §For 1982, data for product codes 24994 14 and 24994 16 included coat and garment hangers, and carvings and household type utensils other than statuettes, tableware, and kitchenware which are classified under code 24994 99 for 1987.
 ¶For 1982, product code 24994 79 was included with product code 24994 99.

Table 6a-2. Related Products From Current Industrial Reports Series—Value of Shipments by All Producers: 1987 and 1982

[Additional detail is provided in the Current Industrial Report series. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987 product shipments		1982 product shipments	
		Quantity	Value (million dollars)	Quantity	Value (million dollars)
MA26A, PULP, PAPER, AND BOARD					
24934 —	Hardboard products (density 31 lb or more per cu ft)..... 1,000 s tons..	1 683.0	587.9	1 741.1	547.7
24934 12	Basic hardboard (not machined or face finished):				
	Standard..... 1,000 s tons..	239.2	67.9	329.0	85.3
24934 13	Tempered..... do..	108.8	22.7	(D)	(D)
24934 15	Service and other basic hardboard..... do..			22.7	6.2
24934 16	Machine and cut hardboard, including molded, cut to size, perforated, panel stock, etc. (not face finished)..... do..	391.8	109.6	207.6	53.9
24934 17	Coated or laminated hardboard:†				
	Interior paneling..... 1,000 s tons..	66.9	28.2	276.8	108.3
24934 18	Exterior siding..... do..	750.7	273.7	713.1	228.2
24934 19	Other, including doorskins, garage door panels, and furniture stock..... do..	102.9	78.9	(D)	(D)
24935 —	Structural insulating board (density less than 31 lb per cu ft but more than 10 lb per cu ft)..... do..	604.8	201.6	592.8	181.7
24935 15	Sound-deadening board, nominal 1/2 inch thick, natural finish..... do..	21.3	11.6	23.5	12.4
24935 21	Tile, and lay-in panels, except acoustical..... do..	(D)	(D)	80.0	39.0
24935 35	Roof insulation board, preformed above deck..... do..	128.1	41.3	83.4	21.1
24935 43	Other structural insulating board products, including trailer board, and insulating board for all other industrial uses such as automobile industry, furniture industry, etc..... do..	(D)	(D)	405.9	109.2

Table 6b. Product Classes—Value of Shipments by All Producers for Specified States: 1987 and 1982

[Million dollars. Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in table 2. Also, product classes are not shown if they are miscellaneous or "not specified by type" classes. Statistics for some States are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1987. For meaning of abbreviations and symbols, see introductory text. For comparability of product classes and product codes between 1982 and 1987 and explanation of terms, see appendixes]

Product class and geographic area	1987 value of product shipments	1982 value of product shipments	Product class and geographic area	1987 value of product shipments	1982 value of product shipments
24411, NAILED OR LOCK-CORNER WOODEN BOXES			24412, WOODEN BOX AND CRATE SHOOK—Con.		
United States.....	97.6	109.0	Michigan.....	11.9	6.0
California.....	30.9	29.3	Mississippi.....	2.7	(NA)
Illinois.....	3.5	(NA)	New Jersey.....	3.8	3.7
New York.....	5.0	4.3	New York.....	3.1	3.4
Ohio.....	2.7	(NA)	North Carolina.....	6.6	2.9
Pennsylvania.....	2.6	3.1			
Texas.....	7.4	13.2	Ohio.....	3.8	4.0
			Oregon.....	9.0	(NA)
24412, WOODEN BOX AND CRATE SHOOK			Pennsylvania.....	8.2	4.6
United States.....	180.8	156.2	Tennessee.....	5.0	3.2
California.....	61.3	60.4	Texas.....	8.8	7.1
Florida.....	7.7	3.1	Washington.....	12.0	18.6
			Wisconsin.....	9.1	3.5

Table 6b. **Product Classes—Value of Shipments by All Producers for Specified States: 1987 and 1982—Con.**

[Million dollars. Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in table 2. Also, product classes are not shown if they are miscellaneous or "not specified by type" classes. Statistics for some States are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1987. For meaning of abbreviations and symbols, see introductory text. For comparability of product classes and product codes between 1982 and 1987 and explanation of terms, see appendixes]

Product class and geographic area	1987 value of product shipments	1982 value of product shipments	Product class and geographic area	1987 value of product shipments	1982 value of product shipments
24912, WOOD POLES, PILES, AND POSTS OWNED AND TREATED BY SAME ESTABLISHMENT			24935, INSULATING BOARD (FIBERBOARD)		
United States	478.2	461.1	United States	205.4	188.9
Alabama	71.1	41.6	24936, HARDBOARD PRODUCTS MADE FROM PURCHASED HARDBOARD		
California	23.4	17.3	United States	208.4	149.1
Florida	13.9	27.3	California	34.6	19.2
Georgia	55.3	61.1	Illinois	14.0	(NA)
Idaho	7.9	9.1	Indiana	9.2	(NA)
Mississippi	56.7	43.7	Michigan	33.4	(NA)
North Carolina	34.4	21.0	North Carolina	20.2	17.5
Oklahoma	8.7	11.3	Oregon	4.4	(NA)
Oregon	19.6	30.6	Pennsylvania	4.8	(NA)
Texas	18.0	33.4	24937, PREFINISHED PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD (MDF) MADE FROM PURCHASED PARTICLEBOARD AND MDF		
Virginia	29.8	(NA)	United States	216.1	110.3
Washington	16.9	32.7	California	50.6	9.2
Wisconsin	4.3	2.2	Florida	6.2	(NA)
24913, OTHER WOOD PRODUCTS OWNED AND TREATED BY SAME ESTABLISHMENT			Indiana	3.5	(NA)
United States	1 265.1	617.4	Michigan	2.9	(NA)
Alabama	117.0	44.2	North Carolina	45.1	(NA)
Arkansas	32.1	33.5	Oregon	26.3	(NA)
California	33.6	13.1	24991, MIRROR AND PICTURE FRAMES		
Colorado	7.4	(NA)	United States	605.1	505.5
Florida	32.5	19.7	Arkansas	38.9	17.6
Georgia	85.8	47.0	California	100.5	85.6
Illinois	25.9	14.6	Georgia	40.9	21.1
Indiana	31.5	18.8	Illinois	56.9	95.1
Louisiana	14.6	20.6	Indiana	3.5	2.8
Mississippi	31.2	44.0	Maryland	13.1	(NA)
North Carolina	154.5	41.7	Massachusetts	20.5	36.2
Ohio	13.3	5.9	Michigan	9.8	6.0
Oregon	15.4	16.8	Missouri	4.5	(NA)
Pennsylvania	85.8	25.4	New Jersey	18.1	16.4
South Carolina	123.6	48.6	New York	29.6	35.5
Tennessee	38.5	20.1	North Carolina	52.9	31.0
Texas	33.8	52.5	Ohio	5.7	5.9
Virginia	165.0	57.4	Pennsylvania	10.9	(NA)
Washington	56.3	7.4	Texas	90.3	30.2
West Virginia	23.8	12.4	Virginia	26.9	19.6
Wisconsin	30.6	7.3	24992, CORK AND CORK PRODUCTS		
24919, CONTRACT WOOD PRESERVING			United States	43.3	40.9
United States	105.5	94.9	California	8.0	2.7
Alabama	2.5	4.0	24994, MISCELLANEOUS WOOD PRODUCTS		
California	12.9	(NA)	United States	1 423.8	1 164.8
North Carolina	2.2	(NA)	Alabama	36.9	(NA)
Oregon	6.9	(NA)	Arizona	6.4	(NA)
Pennsylvania	2.4	(NA)	Arkansas	16.7	(NA)
South Carolina	3.5	(NA)	California	185.4	(NA)
Texas	9.2	7.2	Connecticut	15.8	(NA)
Virginia	4.6	(NA)	Florida	27.0	(NA)
Washington	9.2	11.7	Georgia	24.5	(NA)
Wisconsin	2.9	4.4	Illinois	34.1	(NA)
24931, PARTICLEBOARD, PRODUCED AT THIS LOCATION			Indiana	41.1	(NA)
United States	849.1	(NA)	Iowa	36.4	(NA)
California	56.2	(NA)	Kentucky	23.4	(NA)
Georgia	87.4	(NA)	Louisiana	7.7	(NA)
Oregon	253.2	(NA)	Maine	122.9	(NA)
Virginia	78.5	(NA)	Massachusetts	21.9	(NA)
24932, WAFERBOARD AND ORIENTED STRAND BOARD			Michigan	47.4	(NA)
United States	513.3	(NA)	Minnesota	18.7	(NA)
Maine	56.7	(NA)	Mississippi	59.2	(NA)
Minnesota	158.0	(NA)	Missouri	35.9	(NA)
North Carolina	45.3	(NA)	Nebraska	3.1	(NA)
24933, MEDIUM DENSITY FIBERBOARD (MDF) PRODUCED AT THIS LOCATION			New Hampshire	34.5	(NA)
United States	282.1	131.3	New Jersey	14.1	(NA)
Michigan	23.0	(NA)	New York	70.7	(NA)
24934, HARDBOARD PRODUCTS MADE FROM HARDBOARD PRODUCED AT THIS LOCATION			North Carolina	73.0	(NA)
United States	573.7	558.3	Ohio	94.2	(NA)
Oregon	60.9	53.0	Oregon	16.3	(NA)

Table 6b. **Product Classes—Value of Shipments by All Producers for Specified States: 1987 and 1982—Con.**

[Million dollars. Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in table 2. Also, product classes are not shown if they are miscellaneous or "not specified by type" classes. Statistics for some States are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1987. For meaning of abbreviations and symbols, see introductory text. For comparability of product classes and product codes between 1982 and 1987 and explanation of terms, see appendixes]

Product class and geographic area	1987 value of product shipments	1982 value of product shipments	Product class and geographic area	1987 value of product shipments	1982 value of product shipments
24994, MISCELLANEOUS WOOD PRODUCTS—Con.			24994, MISCELLANEOUS WOOD PRODUCTS—Con.		
Pennsylvania	55.5	(NA)			
Rhode Island	2.8	(NA)			
South Carolina	11.9	(NA)			
Tennessee	33.1	(NA)			
Texas	70.9	(NA)	Washington	50.5	(NA)
Vermont	33.8	(NA)	West Virginia	2.5	(NA)
Virginia	20.9	(NA)	Wisconsin	35.9	(NA)

Table 6c. **Historical Statistics for Product Classes—Value Shipped by All Producers: 1987 and Earlier Years**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For comparability of product classes and product codes between 1982 and 1987 and explanation of terms, see appendixes]

1987 product code	Product class	1987	1986 ¹	1985 ¹	1984 ¹	1983 ¹	1982	1977	1972
2441-	Nailed wood boxes and shook	347.6	299.4	292.4	341.2	330.2	314.6	265.3	232.8
24411	Nailed or lock-corner wooden boxes	97.6	125.2	115.5	135.6	124.1	109.0	93.8	85.5
24412	Wooden box and crate shook	180.8	137.4	137.6	160.7	152.6	156.2	127.0	100.0
24410	Nailed wooden boxes and shook, n.s.k.	69.2	36.9	39.3	44.9	53.4	49.4	44.5	46.3
2448-	Wood pallets and skids	1 437.0	1 309.9	1 284.7	1 312.3	1 016.7	969.7	642.9	287.4
24480	Pallets and skids	1 437.0	1 309.9	1 284.7	1 312.3	1 016.7	969.7	642.9	287.4
2449-	Wood containers, n.e.c.	218.6	214.7	257.8	250.8	272.4	295.6	235.3	218.7
24490	Wood containers, n.e.c.	218.6	214.7	257.8	250.8	272.4	295.6	235.3	218.7
2491-	Wood preserving	2 151.9	1 733.4	1 637.8	1 578.6	1 364.7	1 325.0	892.2	461.4
24912	Wood poles, piles, and posts owned and treated by same establishment	478.2	583.2	490.3	464.3	451.2	461.1	305.5	394.3
24913	Other wood products owned and treated by same establishment ..	1 265.1	838.8	828.8	801.0	675.5	617.4	418.3	
24919	Contract wood preserving	105.5	118.1	150.3	139.6	78.4	94.9	68.6	29.1
24910	Wood preserving, n.s.k.	303.0	193.2	168.3	171.6	159.6	151.6	99.8	38.0
2493-	Reconstituted wood products	2 896.4	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
24931	Particleboard, produced at this location	849.1	1 232.0	1 032.5	936.5	712.8	567.3	476.5	286.2
24932	Waterboard and oriented strand board	513.3							
24933	Medium density fiberboard (mdf) produced at this location	282.1	244.7	216.4	225.8	228.9	131.3	84.2	(NA)
24934	Hardboard products made from hardboard produced at this location	573.7	579.5	621.1	658.4	626.0	558.3	508.0	(NA)
24935	Insulating board (fiberboard)	205.4	197.2	251.3	245.9	225.0	188.8	222.2	219.7
24936	Hardboard products made from purchased hardboard	206.4	188.9	161.4	179.8	167.5	148.1	171.3	(NA)
24937	Prefinished particleboard and medium density fiberboard (mdf) made from purchased particleboard and mdf	216.1	174.4	147.1	137.4	105.0	110.3	84.9	(NA)
24930	Reconstituted wood products, n.s.k.	50.1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
2499-	Wood products, n.e.c.	3 183.1	(NA)	(NA)	(NA)	(NA)	2 304.8	1 802.1	1 055.1
24991	Mirror and picture frames	605.1	564.0	563.1	548.2	685.5	505.5	314.6	173.0
24992	Cork and cork products	43.3	29.0	26.1	28.8	32.6	40.9	32.8	18.1
24994	Miscellaneous wood products	1 423.8	(NA)	(NA)	(NA)	(NA)	1 164.8	882.7	536.1
24990	Wood products, n.e.c., n.s.k.	1 111.0	3828.8	3728.7	3775.2	3638.1	3593.6	3372.0	327.9

¹Figures are estimates derived from a representative sample of manufacturing establishments. Standard errors associated with estimates are published in annual survey of manufactures publications for this period.

²For 1977, prefinished medium density fiberboard (MDF) made from purchased MDF was included with product class 24933.

³1987 data for product class 24990 are not completely comparable for 1986 and prior years because of 1987 SIC revision to industry 2499.

Table 7. Materials Consumed by Kind: 1987 and 1982

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

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK					
	Materials, containers, and supplies	(X)	158.5	(X)	145.4
241113	Hardwood and softwood logs, bolts, and unsliced flitches mil ft (log scale)...	32.5	6.5	(F)	(F)
	Rough lumber:				
242110	Hardwood	(S)	9.5	(S)	8.4
242121	Softwood	(S)	15.0	(S)	33.6
	Dressed lumber:				
242117	Hardwood	(S)	3.4	(F)	(F)
242128	Softwood	**116.0	27.8	108.4	17.0
243056	Plywood, hardwood and softwood	(X)	3.9	(X)	14.4
970099	All other materials and components, parts, containers, and supplies	(X)	38.4	(X)	21.5
971000	Materials, containers, and supplies, n.s.k. ²	(X)	54.0	(X)	50.5
INDUSTRY 2448, WOOD PALLETS AND SKIDS					
	Materials, containers, and supplies	(X)	811.0	(X)	540.7
241113	Hardwood and softwood logs, bolts, and unsliced flitches mil ft (log scale)...	(S)	66.5	(S)	36.4
	Rough lumber:				
242110	Hardwood	**930.2	168.2	*735.6	101.1
242121	Softwood	**247.3	35.9	*155.9	21.4
	Dressed lumber:				
242117	Hardwood	*76.0	14.5	**146.8	25.7
242128	Softwood	**301.6	49.5	**321.8	38.3
243056	Plywood, hardwood and softwood	(X)	13.8	(X)	12.0
970099	All other materials and components, parts, containers, and supplies	(X)	59.1	(X)	34.2
971000	Materials, containers, and supplies, n.s.k. ²	(X)	405.5	(X)	271.6
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.					
	Materials, parts, and supplies	(X)	118.6	(X)	158.1
241113	Hardwood and softwood logs, bolts, and unsliced flitches mil ft (log scale)...	*35.1	6.2	103.0	18.4
	Rough lumber:				
242110	Hardwood	**105.2	22.0	**214.1	28.1
242121	Softwood	(D)	(D)	(S)	3.2
	Dressed lumber:				
242117	Hardwood	(D)	(D)	*19.4	4.0
242128	Softwood	*13.6	3.1	**15.8	2.5
243056	Plywood, hardwood and softwood	(X)	(D)	(X)	5.3
	Veneer:				
243540	Hardwood	*83.3	9.8	*382.6	13.8
243640	Softwood	(S)	(D)	(S)	6.8
970099	All other materials and components, parts, containers, and supplies	(X)	30.7	(X)	52.6
971000	Materials, parts, and supplies, n.s.k. ²	(X)	30.6	(X)	23.4
INDUSTRY 2491, WOOD PRESERVING					
	Materials, parts, and supplies	(X)	1 548.1	(X)	891.2
241109	Treated in same establishment: Poles, piling, and other round or hewn wood products	(X)	222.8	(X)	194.4
	Rough lumber, including sawn ties:				
242110	Hardwood	(S)	124.1	*691.1	132.7
242121	Softwood	*1 868.0	538.8	*630.7	171.3
	Consumed in same establishment:				
286551	Croosote oil	*53.5	45.0	68.2	79.4
281108	Petroleum solvents	*18.4	11.9	*27.7	28.3
286915	Pentachlorophenol	**26.2	27.7	**57.9	26.8
281902	Water-born salts	86.0	82.6	*24.5	30.2
280015	Flame retardants	(S)	11.4	(S)	8.4
970099	All other materials, components, parts, containers, and supplies	(X)	205.4	(X)	67.4
971000	Materials, parts, and supplies, n.s.k. ²	(X)	298.4	(X)	152.3

See footnotes at end of table.

Table 7. **Materials Consumed by Kind: 1987 and 1982—Con.**

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

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS					
Materials, parts, and supplies		(X)	1 210.7	(NA)	(NA)
Logs, bolts, and unsliced fitches:					
241111	Hardwood..... mil ft (log scale).....			(NA)	(NA)
241112	Softwood..... do.....	109.1	11.2	(NA)	(NA)
241131	Pulpwood..... 1,000 cords.....	*446.6	35.5	(NA)	(NA)
242016	Chips, slabs, edgings, sawdust, and other wood waste, except planer shavings..... 1,000 s tons.....	**2 602.0	120.0	(NA)	(NA)
242017	Planer shavings..... do.....	(S)	85.6	(NA)	(NA)
		3 889.0	92.0	(NA)	(NA)
Plywood:					
243510	Hardwood..... mil sq ft sm.....	(S)	.5	(NA)	(NA)
243601	Softwood..... mil sq ft (3/8 in. basis).....	(S)	.4	(NA)	(NA)
249310	Particleboard..... mil sq ft (3/4 in. basis).....	(S)	44.0	(NA)	(NA)
249340	Hardboard (wood fiberboard)..... mil sq ft (1/8 in. basis).....	(S)	58.1	(NA)	(NA)
249330	Medium density fiberboard (MDF)..... mil sq ft (3/4 in. basis).....	(S)	26.8	(NA)	(NA)
282141	Urea and melamine resins..... mil lb (dry basis).....	1 344.9	125.9	(NA)	(NA)
282142	Phenolic and other tar acid resins..... do.....	(S)	75.4	(NA)	(NA)
282108	All other plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and shapes..... mil lb.....	(S)	18.3	(NA)	(NA)
285101	Paints, varnishes, lacquers, shellacs, japans, enamels, and allied products..... 1,000 gal.....	*5 263.1	39.0	(NA)	(NA)
289100	Adhesives and sealants..... mil lb.....	16.6	4.5	(NA)	(NA)
970099	All other materials and components, parts, containers, and supplies.....	(X)	358.4	(NA)	(NA)
971000	Materials, parts, and supplies, n.s.k. ²	(X)	115.1	(NA)	(NA)
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.					
Materials, containers, and supplies		(X)	1 388.7	(NA)	(NA)
Logs, bolts, and unsliced fitches:					
241111	Hardwood..... mil ft (log scale).....	*130.8	26.7	(NA)	(NA)
241112	Softwood..... do.....	(S)	9.1	(NA)	(NA)
Rough lumber:					
242110	Hardwood..... mil bd ft.....	**162.5	70.0	(NA)	(NA)
242121	Softwood..... do.....	*197.8	73.3	(NA)	(NA)
Dressed lumber:					
242117	Hardwood..... mil bd ft.....	91.4	34.8	(NA)	(NA)
242128	Softwood..... do.....	266.1	70.6	(NA)	(NA)
242016	Chips, slabs, edgings, sawdust, and other wood waste, except planer shavings..... 1,000 s tons.....	(S)	8.9	(NA)	(NA)
242017	Planer shavings..... do.....	16.5	.4	(NA)	(NA)
242620	Hardwood dimension and parts, excluding furniture frames..... mil bd ft.....	(S)	16.2	(NA)	(NA)
Plywood:					
243510	Hardwood..... mil sq ft sm.....	33.0	15.9	(NA)	(NA)
243601	Softwood..... mil sq ft (3/8 in. basis).....	48.9	13.0	(NA)	(NA)
249340	Hardboard (wood fiberboard)..... mil sq ft (1/8 in. basis).....	(S)	24.0	(NA)	(NA)
249330	Medium density fiberboard (MDF)..... mil sq ft (3/4 in. basis).....	(S)	4.7	(NA)	(NA)
249310	Particleboard..... do.....	(S)	6.0	(NA)	(NA)
285101	Paints, varnishes, lacquers, shellacs, japans, enamels, and allied products..... 1,000 gal.....	*1 760.1	16.7	(NA)	(NA)
289100	Adhesives and sealants..... mil lb.....	(S)	1.8	(NA)	(NA)
282141	Urea and melamine resins..... mil lb (dry basis).....	1.4	.2	(NA)	(NA)
282142	Phenolic and other tar acid resins..... do.....	1.7	.9	(NA)	(NA)
282108	All other plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and shapes..... mil lb.....	**12.6	6.0	(NA)	(NA)
970099	All other materials and components, containers, and supplies.....	(X)	300.0	(NA)	(NA)
971000	Materials, containers, and supplies, n.s.k. ²	(X)	689.7	(NA)	(NA)

¹For some establishments, data have been estimated from central unit values which are based on quantity-cost 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: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

²Total cost of materials of establishments that did not report detailed materials data, including establishments that were not mailed a form.

³For 1982, material codes 241113 and 242117 were included with material code 970099.

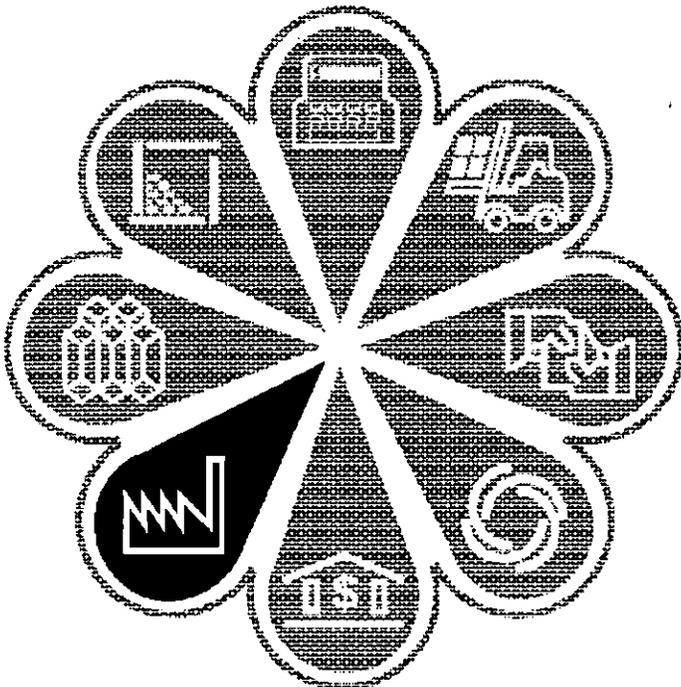
1992 Census of Manufactures

MC92-I-24C

INDUSTRY SERIES

Wooden Containers and Miscellaneous Wood Products

Industries 2441, 2448, 2449, 2491, 2493,
and 2499



U.S. Department of Commerce
Economics and Statistics Administration
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BUREAU OF THE CENSUS
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If you have any questions concerning the statistics in this report, call 301-457-4810.



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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public.

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

Policymaking agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

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 and 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.

AUTHORITY AND SCOPE

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 1992 Economic Census consists of the following eight censuses:

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Financial, Insurance, and Real Estate Industries
- Census of Transportation, Communications, and Utilities
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

MANUFACTURES—INDUSTRY SERIES

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1992 Census of Agriculture and 1992 Census of Governments are conducted separately.) The next economic census is scheduled to be taken in 1998 covering the year 1997.

AVAILABILITY OF THE DATA

The results of the economic census are available in printed reports for sale by the U.S. Government Printing Office and on compact discs for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Bureau of the Census, Washington, DC 20233-8300. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State data centers in every State as well as business and industry data centers in many States also supply economic census statistics.

WHAT'S NEW IN 1992

The 1992 Economic Census covers more of the economy than any previous census. New for 1992 are data on communications, utilities, financial, insurance, and real estate, as well as coverage of more transportation industries. The economic, agriculture, and governments censuses now collectively cover nearly 98 percent of all economic activity.

Among other changes, new 1992 definitions affect the boundaries of about a third of all metropolitan areas. Also, the Survey of Women-Owned Businesses has now been expanded to include all corporations.

HISTORICAL INFORMATION

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

INTRODUCTION III

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 1840 and subsequent censuses to include mining and some commercial activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 Manufactures Census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade and construction industries, but it was broadened in 1933 to include some of the service trades.

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 Enterprise Statistics Program, which publishes combined data from the economic census, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The census of construction industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The census of transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks, but expanded in 1987 to cover business establishments in several transportation industries. For 1992, these statistics are incorporated into a broadened census of transportation, communications, and utilities. Also new for 1992 is the census of financial, insurance, and real estate industries. This is part of a gradual expansion in coverage of industries previously subjected to government regulation.

The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic census in 1972 along with the Survey of Women-Owned Businesses.

An economic census has also been taken in Puerto Rico since 1909, in the Virgin Islands of the United States and Guam since 1958, and in the Commonwealth of the Northern Mariana Islands since 1982.

Statistical reports from the 1987 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 data published since 1967 are still available for sale on microfiche from the Census Bureau.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

While the census provides complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, with the results appearing in publication series such as Current Business Reports (retail and wholesale trade and service industries), the Annual Survey of Manufactures, Current Industrial Reports, and the Quarterly Financial Report. Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the census. The County Business Patterns program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

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 1992 Economic Census and Related Statistics*. More information on the methodology, procedures, and history of the census will be published in the *History of the 1992 Economic Census*. Contact Customer Services for information on availability.

Census of Manufactures

GENERAL

This report, from the 1992 Census of Manufactures, is one of a series of 83 industry reports, each of which provides statistics for individual industries or groups of related industries. Additional separate reports will be issued for each State and the District of Columbia and for special subjects such as manufacturers' shipments to the federal government and concentration ratios in manufacturing.

The industry reports include such statistics as number of establishments, employment, payroll, value added by manufacture, cost of materials consumed, capital expenditures, product shipments, etc.

State reports present similar statistics for each State and its important metropolitan areas (MA's), counties, and places. Selected statistical totals for "all manufacturing" have been shown in the State reports for MA's with 250 employees or more and for counties and places with 500 employees or more.

The *General Summary* report contains industry, product class, and geographic area statistics summarized in one report. The introduction to the *General Summary* discusses, at greater length, many of the subjects described in this introduction. For example, the *General Summary* text discusses the relationship of value added by manufacture to national income by industry of origin, the changes in statistical concepts over the history of the censuses, and the valuation problems arising from intracompany transfers between manufacturing plants of a company and between manufacturing plants and sales offices and sales branches of a company.

SCOPE OF CENSUS AND DEFINITION OF MANUFACTURING

The 1992 Census of Manufactures covers all establishments with one paid employee or more primarily engaged in manufacturing as defined in the *1987 Standard Industrial Classification (SIC) Manual*. This is the system of industrial classification developed by experts on classification in Government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of

Management and Budget. This classification system is used by Government agencies as well as many organizations outside the Government.

The SIC Manual defines manufacturing as the mechanical or chemical transformation of substances or materials into new products. The assembly of component parts of products also is considered to be manufacturing if the resulting product is neither a structure nor other fixed improvement. These activities are usually carried on in plants, factories, or mills that characteristically use power-driven machines and materials-handling equipment.

Manufacturing production is usually carried on for the wholesale market, for transfers to other plants of the same company, or to the order of industrial users rather than for direct sale to the household consumer. Some manufacturers in a few industries sell chiefly at retail to household consumers through the mail, through house-to-house routes, or through salespersons. Some activities of a service nature (enameling, engraving, etc.) are included in manufacturing when they are performed primarily for trade. They are considered nonmanufacturing when they are performed primarily to the order of the household consumer.

RELATIONSHIP BETWEEN ANNUAL SURVEY OF MANUFACTURES AND CENSUS OF MANUFACTURES

The Bureau of the Census conducts the annual survey of manufactures (ASM) in each of the 4 years between the censuses of manufactures. The ASM is a probability-based sample of approximately 62,000 establishments and collects the same industry statistics (employment, payroll, value of shipments, etc.) as the census of manufactures. In addition to collecting the information normally requested on the census form, the establishments in the ASM sample are requested to supply information on assets, capital expenditures, retirements, depreciation, rental payments, supplemental labor costs, costs of purchased services, and foreign content of materials consumed. Except for supplemental labor costs, the extra ASM items are collected only in census years.

ESTABLISHMENT BASIS OF REPORTING

The census of manufactures is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each

¹*Standard Industrial Classification Manual: 1987*. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

location. 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 1992, 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. This report excludes information for separately operated administrative offices, warehouses, garages, and other auxiliary units that service manufacturing establishments of the same company (see Auxiliaries).

MANUFACTURING UNIVERSE AND CENSUS REPORT FORMS

The 1992 Census of Manufactures universe includes approximately 380,000 establishments. 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. 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.** In the 1992 Census of Manufactures, approximately 143,000 small single-establishment companies were excused from filing reports. Selection of these small establishments was done on an industry-by-industry basis and was based on annual payroll and total shipments data as well as on the industry classification codes contained in the administrative records of Federal agencies. The cutoffs were selected so that these administrative-records cases would account for no more than 3 percent of the value of shipments for all manufacturing. Generally, all single-establishment companies with less than 5 employees were excused, while all establishments with more than 20 employees were mailed forms.

Information on the physical location of the establishment, as well as information on payrolls, receipts (shipments), and industry classification, was obtained from the administrative records of other Federal agencies under special arrangements, which 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" (n.s.k.) categories.

The industry classification codes included in the administrative-records 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 at the four-digit SIC level. This was especially true whenever there was a relatively fine line of demarcation between industries or between manufacturing and nonmanufacturing activity.

Sometimes these administrative-records cases were only given a two- or three-digit SIC group. For the 1992 Census of Manufactures, 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 four-digit SIC level. Establishments that did not return the classification form were coded later to those four-digit SIC industries identified as "not elsewhere classified" (n.e.c.) within the given two- or three-digit industry groups.

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 over 237,000 establishments covered in the mail canvass were divided into three groups:

- a. **ASM sample establishments.** This group consisted of approximately 62,000 establishments covering 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 (see Appendix B, Annual Survey of Manufactures).

In a census of manufactures 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 information on assets, capital expenditures, retirements, depreciation, rental payments, supplemental labor costs, and costs of purchased services. See appendix A, section 2, for an explanation of these items.

The census part of the report form is 1 of approximately 200 versions containing product, material, and special inquiries. The diversity of manufacturing activities necessitated the use of these many forms to canvass the 459 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 be performing. Respondents were requested to identify the products, the value of each product, and, in a large number of 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 material not identified on the form.

Finally, 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 112,000 establishments were included in this group. A variable cutoff, based on administrative-records payroll data and determined on an industry-by-industry basis, was used to select those establishments that were to receive 1 of the approximately 200 census of manufactures 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 consisted of approximately 63,000 establishments. For those industries where application of the variable cutoff for administrative-records 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 approximately 80 versions of the short form, which requested summary product and

material data and totals but no details on employment, payrolls, cost of materials, inventories, and capital expenditures.

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

AUXILIARIES

In this industry report, the data on employment and payroll are limited to operating manufacturing establishments. The census report form filed for auxiliaries (ES-9200) requested a description of the activity of the establishments serviced. However, the manufacturing auxiliaries were coded only to the two-digit major group of the establishments they served; whereas, the operating establishments were coded to a four-digit manufacturing industry. Data for the approximately 11,000 separately operated auxiliaries are included in the geographic area series and in a report issued as part of the 1992 Enterprise Statistics Survey.

Auxiliaries are establishments whose employees are primarily engaged in performing supporting services for other establishments of the same company, rather than for the general public or for other business firms. They can be at different locations from the establishments served or at the same location as one of those establishments but not operating as an integral part thereof and serving two establishments or more. Where auxiliary operations are conducted at the same location as the manufacturing operation and operate as an integral part thereof, they usually are included in the report for the operating manufacturing establishment.

Included in the broad category of auxiliaries are administrative offices. Employees in administrative offices are concerned with the general management of multiestablishment companies, i.e., with the general supervision and control of two units or more, such as manufacturing plants, mines, sales branches, or stores. The functions of these employees may include the following:

1. Program planning, including sales research and coordination of purchasing, production, and distribution
2. Company purchasing, including general contracts and purchasing methods
3. Company financial policy and accounting
4. General engineering, including design of product machinery and equipment, and direction of engineering effort conducted at the individual operation locations
5. Company personnel matters
6. Legal and patent matters

Other types of auxiliaries serving the plants or central management of the company include purchasing offices, sales promotion offices, research and development organizations, etc.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each of the establishments covered in the census was classified in 1 of 459 manufacturing industries in accordance with the industry definitions in the 1987 SIC Manual. The 1987 edition of this manual represents a major revision for manufacturing industries from the 1972 edition and its 1977 supplement. Appendix A of the 1987 Manual notes the revisions in the four-digit industry levels between 1972/77 and 1987.

An industry is generally defined as a group of establishments producing the same product or a closely related group of products. The product groupings from which industry classifications are derived are based on considerations such as similarity of manufacturing processes, types of materials used, types of customers, and the like. The resulting group of establishments must be significant in terms of number, value added by manufacture, value of shipments, and number of employees. The system operates in such a way that the definitions progressively become narrower with successive additions of numerical digits. For 1992, there are 20 major groups (two-digit SIC), 139 industry groups (three-digit SIC), and 459 industries (four-digit SIC). This represents an expansion of four-digit industries from 452 in 1972/77 and a reduction of three-digit groups from 143 in 1972/77. Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they originate. There are about 11,000 products identified by a seven-digit code. The seven-digit products are considered the primary products of the industry with the same four digits.

Accordingly, an establishment is usually classified in a particular industry on the basis of its major activity during a particular year, i.e., production of the products primary to that industry exceeds, in value, production of the products primary to any other single industry. In a few instances, however, the industry classification of an establishment is not only determined by the products it makes but also by the process employed in operations. Refining of nonferrous metals from ore or rolling and drawing of nonferrous metals (processes which involve heavy capitalization in specialized equipment) would be classified according to the process used during a census year. These establishments then would be "frozen" in that industry during the following ASM years.

In either a census or ASM year, establishments included in the ASM sample with certainty weight, other than those involved with heavily capitalized activities described above, 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 (see Appendix B, Annual Survey of Manufactures). 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, at the aggregate level, some industries comprise different mixes of establishments between survey years and establishment data for such industry statistics as employment and payroll may be tabulated in different industries between survey years. Hence, comparisons between prior-year and current-year published totals, particularly at the four-digit SIC 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-records 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.

While some establishments produce only the primary products of the industry in which they are classified, all establishments of an industry rarely specialize to this extent. The industry statistics (employment, inventories, value added by manufacture, total value of shipments including resales and miscellaneous receipts, etc.) shown in tables 1a through 5a, therefore, reflect not only the primary activities of the establishments in that industry but also their secondary activities. The product statistics in table 6a represent the output of all establishments whether or not they are classified in the same industry as the product. For this reason, in relating the industry statistics, especially the value of shipments to the product statistics, the composition of the industry's output shown in table 5b should be considered.

The extent to which industry and product statistics may be matched with each other is measured by two ratios which are computed from the figures shown in table 5b. The first of these ratios, called the primary product specialization ratio, measures the proportion of product shipments (both primary and secondary) of the establishments classified in the industry represented by the primary products of those establishments. The second ratio, called the coverage ratio, is the proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

However, establishments making products falling into the same industry category may use a variety of processes and materials to produce them. Also, the same industry classification (based on end products) may include both establishments that are highly integrated and those that

put only the finishing touches on an already highly fabricated item. For example, the refrigeration equipment industry includes instances of almost complete integration (production of the compressor, condensing unit, electric motor, casting, stamping of the case, and final assembly) all carried on at one plant. On the other hand, the condensing unit, the motor, and the case may be purchased and only assembled into the finished product.

In some instances, separate industry categories have been established for integrated and nonintegrated establishments. For other industries, the census provides separate statistics on the production of intermediate commodities made and used in the producing plant. For some industries characterized by many plants of the same company, separate figures on interplant transfers of products usually are shown.

Differences in the integration of production processes, types of operations, and alternatives in types of materials used should be considered when relating the industry statistics (employment, payrolls, value added, etc.) to the product and material data.

VALUE OF SHIPMENTS FOR THE INDUSTRY COMPARED WITH VALUE OF PRODUCT SHIPMENTS

This report shows value of shipments data for industries and products. In tables 1a through 5b, 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 table 6a represents the total value of all products shipped that are classified as primary to an industry.

CENSUS DISCLOSURE RULES

In accordance with Federal law governing census reports, no data are published that would disclose the data for an individual establishment or company. However, the number of establishments classified in a specific industry is not considered a disclosure, so this information may be released even though other information is withheld.

The disclosure analysis for the industry statistics in tables 1a through 5a of this report 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 new capital expenditures. However, the suppressed data are included in higher-level totals. A separate disclosure analysis is performed for new capital expenditures that can be suppressed even though value of shipments data are publishable.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1992 Census of Manufactures may be obtained on computer diskette or in tabular form. The data will be in summary form and 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) as are 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, Manufacturing and Construction Division, Bureau of the Census, Washington, DC 20233.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

—	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(NC)	Not comparable.
(S)	Withheld because estimate did not meet publication standards.
(X)	Not applicable.
(Z)	Less than half the unit shown.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
pt.	Part.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, doz, bbl, and s tons, are used in the customary sense.

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SIC's 33-35 (exc. 357)	Kenneth Hansen	301-457-4755
SIC's 357, 36-39	Bruce Goldhirsch	301-457-4817
Import/export publications	Foreign Trade Division	301-457-3041
Industry analysis and forecasting	International Trade Administration	202-377-4356

Users' Guide for Locating Statistics in This Report by Table Number

[For explanation of terms, see appendixes]

Item	Four-digit industry statistics						Five-digit product class and seven-digit product statistics				
	Historical	Operating ratios	By geographic area	Summary and supplemental	By employment size	By industry and product class specialization	Materials consumed by kind	Industry-product analysis	Product shipments	Product class by geographic area	Historical product class
Number of companies	1a			3a					*6a		
Number of establishments	1a		2	3a	4	5a					
Employment and payroll:											
Number of employees	1a	1b	2	3a	4	5a					
Payroll	1a	1b	2	3a	4	5a					
Supplemental labor costs				3a							
Production workers	1a	1b	2	3a	4	5a					
Production-worker hours	1a	1b	2	3a	4	5a					
Production-worker wages	1a	1b	2	3a	4	5a					
Shipments, cost of materials, and value added:											
Value of shipments (four-digit)	1a	1b	2	3a	4	5a		5b			
Product class shipments (five-digit)									6a	6b	6c
Product shipments (seven-digit)									6a		
Value added by manufacture	1a	1b	2	3a	4	5a					
Cost of materials	1a	1b	2	3a	4	5a					
Fuels and electric energy				3a							
Materials consumed by kind							7				
Inventories:											
Total, end of year	1a			3a	4						
By stage of fabrication				3a							
Capital expenditures, assets, rental payments, and purchased services:											
New capital expenditures	1a		2	3b	4	5a					
Used plant and equipment expenditures				3b							
Gross assets				3b							
Depreciation				3b							
Retirements of buildings and machinery				3b							
Rental payments				3b							
Foreign content of materials consumed				3c							
Purchased services				3c							
Ratios:											
Specialization	1a							5b			
Coverage	1a							5b			

*Number of companies with shipments of more than \$100 thousand.

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Description of Industries and Summary of Findings

This report shows 1992 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC code and title

2441	Nailed Wood Boxes and Shook
2448	Wood Pallets and Skids
2449	Wood Containers, N.E.C.
2491	Wood Preserving
2493	Reconstituted Wood Products
2499	Wood Products, N.E.C.

The industry statistics (employment, payroll, cost of materials, value of shipments, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments but also their activities in the manufacture of secondary products as well as their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 through 5a) with product statistics (table 6) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5b, which shows the value of primary and secondary products shipped by establishments classified in the specified industry and the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

Establishment data were tabulated based on industry definitions included in the *1987 Standard Industrial Classification (SIC) Manual*¹. The 1987 edition represents a major revision for manufacturing industries from the 1972 edition and its 1977 supplement. In addition to the 1987 SIC revision, changes were made to the product class (five-digit) and product code (seven-digit) categories. The product class and product code comparability between the 1992 and 1987 censuses is shown in appendix C. This appendix presents, in tabular form, the linkage from 1992 to 1987, and 1987 to 1992.

¹*Standard Industrial Classification Manual: 1987*. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

All dollar figures included in this report are at prices current for the year specified and, therefore, unadjusted for changes in price levels. Consequently, when making comparisons to prior years, users should take into consideration the inflation that has occurred.

INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK

This industry is made up of establishments primarily engaged in manufacturing nailed and lock-corner wood boxes (lumber or plywood), and shook for nailed and lock-corner boxes.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 2441, Nailed Wood Boxes and Shook, had employment of 5.9 thousand. The employment figure was unchanged from 1987.

The leading States in employment in 1992 were California, Michigan, and Texas, accounting for approximately 44 percent of the industry's employment. The leading States in 1987 were California, Pennsylvania, Wisconsin, and Washington.

The total value of shipments for establishments classified in this industry was \$444.0 million.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2441 shipped \$339.6 million nailed wood boxes and shook products considered primary to the industry, \$70.2 million of secondary products, and had \$34.2 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 83 percent (specialization ratio). In 1987, the specialization ratio was 91 percent.

Establishments in this industry also accounted for 81 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio was 79 percent.

The products primary to industry 2441, no matter in what industry they were produced, appear in table 6a and aggregate to \$421.1 million. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the nailed wood boxes and shook industry amounted to \$255.8 million. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 12 percent of the total value of shipments.

INDUSTRY 2448, WOOD PALLETS AND SKIDS

This industry is made up of establishments primarily engaged in manufacturing wood or wood and metal combination pallets and skids.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 2448, Wood Pallets and Skids, had employment of 28.7 thousand. The employment figure was 12 percent above the 25.7 thousand reported in 1987.

The leading States in employment in 1992 were California, Ohio, Pennsylvania and Texas, accounting for approximately 27 percent of the industry's employment. This represents a shift from 1987 when California, Ohio, Michigan, and Pennsylvania were the leading States.

The total value of shipments for establishments classified in this industry was \$2.1 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2448 shipped \$1.9 billion of wood pallets and skids products considered primary to the industry, \$171.9 million of secondary products, and had \$85.6 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 92 percent (specialization ratio). In 1987, the specialization ratio was 93 percent.

Establishments in this industry also accounted for 93 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio was 94 percent.

The products primary to industry 2448, no matter in what industry they were produced, appear in table 6a and aggregate to \$2.0 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the wood pallets and skids industry amounted to \$1.2 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 13 percent of the total value of shipments.

INDUSTRY 2449, WOOD CONTAINERS, N.E.C.

This industry is made up of establishments primarily engaged in manufacturing wood containers, not elsewhere classified, such as cooperage, wirebound boxes and crates, and other veneer and plywood containers. Establishments primarily engaged in manufacturing tobacco hogshead stock are classified in industry 2429. Establishments primarily engaged in manufacturing cooperage stock are classified in industry 2429.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 2449, Wood Containers, N.E.C., had employment of 5.4 thousand. The employment figure was unchanged from 1987. Compared with 1991, employment decreased 17 percent. The 1991 data are based on the Census Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The leading States in employment in 1992 were Georgia, North Carolina, and California, accounting for approximately 33 percent of the industry's employment. The leading States in 1987 were Georgia, North Carolina, Mississippi, and California.

The total value of shipments for establishments classified in this industry was \$343.3 million.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2449 shipped \$313.9 million of wood containers, not elsewhere classified, considered primary to the industry, \$18.0 million of secondary products, and had \$11.4 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 95 percent (specialization ratio). In 1987, the specialization ratio was 92 percent.

Establishments in this industry also accounted for 97 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio was 96 percent.

The products primary to industry 2449, no matter in what industry they were produced, appear in table 6a and aggregate to \$324.8 million. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the wood containers, not elsewhere classified, industry amounted to \$178.0 million. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 26 percent of the total value of shipments.

INDUSTRY 2491, WOOD PRESERVING

This industry is made up of establishments primarily engaged in treating wood, sawed or planed in other establishments, with creosote or other preservatives to prevent decay and to protect against fire and insects. Also included in this industry are establishments primarily engaged in cutting, treating, and selling poles, parts, and piling. Establishments primarily engaged in manufacturing other wood products which they may also treat with preservatives are not included.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 2491, Wood Preserving, had employment of 10.8 thousand. The employment figure was 8 percent below the 11.8 thousand reported in 1987.

The leading States in employment in 1992 were Alabama, Virginia, Texas, and South Carolina, accounting for approximately 33 percent of the industry's employment. This represents a shift from 1987 when Alabama, Virginia, Georgia, and South Carolina accounted for approximately 31 percent of the industry's employment.

The total value of shipments for establishments classified in this industry was \$2.7 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2491 shipped \$2.5 billion of preservatives treated wood products considered primary to the industry, \$74.2 million of secondary products, and had \$120.2 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 97 percent (specialization ratio). In 1987, the specialization ratio also was 97 percent.

Establishments in this industry also accounted for 96 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio was 95 percent.

The products primary to industry 2491, no matter in what industry they were produced, appear in table 6a and aggregate to \$2.6 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the wood preserving industry amounted to \$2.0 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 10 percent of the total value of shipments.

INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS

This industry is made up of establishments primarily engaged in manufacturing reconstituted wood products, such as hardboard, particleboard, cellulosic fiberboard, medium density fiberboard, waferboard, and oriented strandboard.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 2493, Reconstituted Wood Products, had employment of 22.8 thousand. The employment figure was 4 percent above the 22.0 thousand reported in 1987. Compared with 1991, employment increased 9 percent. The 1991 data are based on the Census Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The leading States in employment in 1992 were Oregon, North Carolina, California, and Michigan, accounting for approximately 32 percent of the industry's employment. This represents a shift from 1987 when Oregon, North Carolina, Mississippi, and Virginia accounted for approximately 37 percent of the industry's employment.

The total value of shipments for establishments classified in this industry was \$4.0 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2493 shipped \$3.9 billion of reconstituted wood products considered primary to the industry, \$41.5 million of secondary products, and had \$41.0 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 99 percent (specialization ratio). In 1987, the specialization ratio was 98 percent.

Establishments in this industry also accounted for 98 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio was 95 percent.

The products primary to industry 2493, no matter in what industry they were produced, appear in table 6a and aggregate to \$4.0 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the reconstituted wood products industry amounted to \$2.0 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 20 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 2 percent of the total value of shipments.

INDUSTRY 2499, WOOD PRODUCTS, N.E.C.

This industry is made up of establishments primarily engaged in manufacturing miscellaneous wood products, not elsewhere classified, and products from rattan, reed, splint, straw, veneer strips, wicker, and willow.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 2499, Wood Products, N.E.C., had employment of 51.1 thousand. The employment figure was 9 percent below the 56.3 thousand reported in 1987. Compared with 1991, employment decreased 12 percent. The 1991 data are based on the Census Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The leading States in employment in 1992 were California, Ohio, New York, and Maine, accounting for approximately 32 percent of the industry's employment. This represents a shift from 1987 when California, New York, Maine, and Texas were the leading States.

The total value of shipments for establishments classified in this industry was \$3.7 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2499 shipped \$3.3 billion of wood products, not elsewhere classified, considered primary to the industry, \$181.2 million of secondary products, and had \$229.1 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 95 percent (specialization ratio). In 1987, the specialization ratio also was 95 percent.

Establishments in this industry also accounted for 94 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio also was 94 percent.

The products primary to industry 2499, no matter in what industry they were produced, appear in table 6a and aggregate to \$3.5 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the wood products, not elsewhere classified, industry amounted to \$1.7 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 22 percent of the total value of shipments.

Table 1a. Historical Statistics for the Industry: 1992 and Earlier Years

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

Year ¹	All establishments ³			All employees		Production workers			Value added by manufacture ⁴ (million dollars)	Cost of materials ⁵ (million dollars)	Value of shipments ⁶ (million dollars)	New capital expenditures ⁷ (million dollars)	End-of-year inventories ⁸ (million dollars)	Ratios	
	Companies ² (no.)	Total (no.)	With 20 employees or more (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						Specialization ⁹ (per cent)	Coverage ¹⁰ (per cent)
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK															
1992 Census	291	304	87	5.9	101.2	4.7	9.1	67.1	189.3	255.8	444.0	7.8	49.3	83	81
1991 ASM	(NA)	(NA)	(NA)	6.2	100.0	5.0	10.2	73.2	199.3	245.9	443.7	4.7	48.0	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	6.0	97.5	4.8	9.4	67.7	191.6	240.6	431.3	4.6	46.1	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	6.2	94.5	4.9	10.0	64.5	185.5	229.0	392.9	9.0	48.0	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	6.1	88.4	4.9	9.9	59.2	183.0	193.6	378.0	8.4	38.4	(NA)	(NA)
1987 Census	304	308	95	5.9	84.7	4.9	9.0	57.4	146.5	182.0	325.0	5.5	37.0	91	79
1986 ASM	(NA)	(NA)	(NA)	5.6	77.3	4.5	8.2	54.7	157.1	181.8	338.5	6.5	24.8	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	6.0	79.1	4.8	8.9	56.0	146.8	179.6	329.7	4.8	21.8	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	6.7	80.9	5.8	10.0	59.3	147.6	187.4	336.8	14.0	29.2	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	7.1	84.6	6.0	10.6	58.1	153.9	184.8	334.8	12.5	37.8	(NA)	(NA)
1982 Census	335	338	90	6.4	76.5	5.3	9.4	56.0	137.9	166.7	306.8	6.9	29.9	90	81
1981 ASM	(NA)	(NA)	(NA)	6.7	63.7	5.5	10.2	46.1	104.7	128.7	235.7	5.2	23.8	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	7.8	70.8	6.5	11.8	51.6	127.8	157.1	283.3	5.6	29.8	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	8.9	74.1	7.4	13.4	55.5	118.7	179.0	296.9	4.8	33.6	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	9.2	78.9	8.0	14.8	58.7	116.8	176.9	297.4	9.4	33.0	(NA)	(NA)
1977 Census	391	396	110	8.6	68.6	7.5	13.7	53.6	116.2	147.4	263.3	5.4	31.2	89	83
INDUSTRY 2448, WOOD PALLETS AND SKIDS															
1992 Census	1 883	1 912	457	28.7	449.4	23.4	44.8	311.0	961.4	1 183.8	2 143.3	52.8	154.2	92	93
1991 ASM	(NA)	(NA)	(NA)	27.1	413.4	22.8	43.1	295.6	813.0	1 173.2	1 987.3	48.8	181.8	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	28.3	416.6	24.0	45.5	297.1	802.0	1 155.1	1 948.6	62.3	181.2	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	29.1	394.6	24.5	44.1	280.8	767.5	1 080.8	1 843.7	49.2	156.4	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	26.9	362.7	22.8	42.0	252.2	625.5	1 026.7	1 644.1	38.1	132.4	(NA)	(NA)
1987 Census	1 678	1 701	415	25.7	328.0	21.7	38.0	237.9	616.8	880.2	1 496.1	43.8	115.6	93	94
1986 ASM	(NA)	(NA)	(NA)	20.7	284.6	16.3	27.9	191.5	588.8	803.5	1 394.1	28.3	107.5	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	21.2	301.8	17.4	33.2	209.1	598.3	771.9	1 363.9	39.7	110.5	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	22.3	268.2	18.8	34.3	200.8	602.7	804.2	1 400.9	34.5	104.9	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	22.5	237.0	19.3	34.4	170.4	412.4	627.1	1 051.8	34.3	103.0	(NA)	(NA)
1982 Census	1 649	1 677	362	22.1	230.4	18.4	32.7	165.0	420.5	589.1	1 012.3	29.4	104.3	92	93
1981 ASM	(NA)	(NA)	(NA)	22.7	237.7	19.4	35.6	178.0	425.0	549.2	974.1	39.9	89.8	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	22.9	220.2	19.7	36.2	162.9	438.6	595.5	1 029.7	26.7	88.1	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	24.6	220.7	21.7	40.3	168.2	398.3	606.5	1 001.2	35.6	83.5	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	23.2	205.5	20.6	38.9	157.2	383.9	548.8	936.0	54.7	42.6	(NA)	(NA)
1977 Census	1 267	1 290	348	20.3	163.8	17.9	32.1	126.3	303.1	397.3	698.0	21.3	58.1	90	91
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.															
1992 Census	217	225	50	5.4	89.4	4.4	8.6	58.6	164.2	178.0	343.3	6.1	59.9	95	97
1991 ASM	(NA)	(NA)	(NA)	6.5	120.3	5.4	9.9	83.5	190.9	251.0	433.1	5.3	81.3	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	7.2	121.5	5.9	10.7	83.4	195.6	277.6	470.2	5.2	70.0	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	6.9	110.5	5.7	10.6	78.7	158.2	225.3	380.5	4.8	50.8	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	5.4	73.6	4.7	8.9	52.9	130.1	148.8	272.3	1.3	41.5	(NA)	(NA)
1987 Census	198	208	51	5.4	70.4	4.7	8.6	50.4	111.6	136.2	248.3	2.8	39.9	92	96
1986 ASM	(NA)	(NA)	(NA)	5.0	58.3	4.4	8.2	46.2	84.0	151.0	235.8	3.0	48.1	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	5.8	69.4	5.1	9.6	54.0	96.0	183.6	279.3	2.1	58.6	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	6.1	68.6	5.3	10.0	52.9	121.3	147.6	275.1	2.8	50.7	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	7.1	85.7	6.2	12.6	68.1	131.4	169.8	309.2	4.0	57.0	(NA)	(NA)
1982 Census	216	235	72	7.4	84.0	6.5	12.5	65.9	144.6	168.8	315.8	3.7	57.2	95	97
1981 ASM	(NA)	(NA)	(NA)	6.6	91.0	7.7	14.8	71.5	168.1	196.4	366.1	3.1	72.9	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	9.5	87.3	8.4	14.8	68.8	144.2	187.4	327.8	2.8	68.5	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	8.9	77.9	8.0	15.9	62.4	122.1	170.9	266.8	7.0	51.0	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	8.8	72.0	7.9	14.8	57.8	132.2	157.1	291.0	7.3	43.3	(NA)	(NA)
1977 Census	239	263	82	8.9	67.2	8.0	15.5	53.7	120.4	134.4	255.8	2.9	50.5	93	97
INDUSTRY 2491, WOOD PRESERVING															
1992 Census	407	486	179	10.8	232.8	8.3	17.2	150.4	678.5	2 046.7	2 694.8	56.2	458.4	97	96
1991 ASM	(NA)	(NA)	(NA)	11.7	232.8	9.1	17.3	153.2	657.6	1 932.8	2 605.0	42.0	390.0	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	13.0	245.8	10.2	18.8	161.8	696.5	1 977.5	2 642.7	57.2	408.0	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	12.1	223.4	9.4	17.4	147.0	579.9	1 768.3	2 366.2	45.4	351.2	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	11.7	214.3	8.8	18.0	145.1	605.0	1 670.3	2 265.0	46.2	374.9	(NA)	(NA)
1987 Census	456	540	202	11.8	207.7	9.1	18.2	140.6	552.6	1 620.1	2 169.6	44.1	365.5	97	95
1986 ASM	(NA)	(NA)	(NA)	11.1	181.1	8.6	17.1	127.9	504.1	1 269.3	1 774.0	35.3	324.7	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	11.1	184.0	9.0	18.2	133.4	525.9	1 206.4	1 683.5	47.7	323.4	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	10.7	171.7	8.8	18.3	127.0	495.2	1 177.4	1 625.5	43.5	302.9	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	10.2	155.7	8.1	15.7	108.3	334.3	1 031.7	1 378.4	23.8	298.9	(NA)	(NA)
1982 Census	428	524	184	10.9	159.4	8.6	16.5	108.2	383.7	978.5	1 360.2	35.9	315.3	98	96
1981 ASM	(NA)	(NA)	(NA)	12.3	173.5	9.8	19.9	117.3	419.6	972.8	1 389.0	43.4	269.5	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	13.2	170.6	10.6	21.2	118.3	449.7	975.7	1 397.4	43.3	284.0	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	12.9	153.8	10.4	20.8	105.5	394.4	867.8	1 246.6	46.4	242.6	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	12.9	142.2	10.2	21.0	93.8	385.7	781.4	1 166.8	36.3	219.5	(NA)	(NA)
1977 Census	368	457	192	12.6	126.1	9.9	19.7	82.9	327.1	657.5	962.6	30.3	212.5	97	97
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS															
1992 Census	195	288	180	22.8	614.3	18.5	39.9	458.8	1 930.7	2 029.8	3 980.6	142.8	302.3	99	98
1991 ASM	(NA)	(NA)	(NA)	21.0	537.0	17.1	36.9	395.8	1 284.6	1 756.1	3 040.6	187.3	302.3	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	22.3	554.3	18.2	39.1	407.1	1 285.0	1 778.8	3 042.6	130.2	295.0	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	22.2	546.6	18.2	39.5	401.0	1 476.5	1 706.8	3 198.8	132.9	275.0	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	22.8	532.0	18.3	38.7	393.0	1 390.8	1 584.0	2 971.3	151.6	263.0	(NA)	(NA)
1987 Census	158	240	154	22.0	504.5	17.7	37.1	370.4	1 371.1	1 488.9	2 864.9	149.9	257.2	98	95

See footnotes at end of table.

MANUFACTURES—INDUSTRY SERIES

WOODEN CONTAINERS & MISC. WOOD PRODS. 24C-7

Table 1a. Historical Statistics for the Industry: 1992 and Earlier Years—Con.

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

Year ¹	All establishments ²			All employees		Production workers			Value added by manufacture ⁴ (million dollars)	Cost of materials ⁵ (million dollars)	Value of shipments (million dollars)	New capital expenditures ⁶ (million dollars)	End-of-year inventories ⁴ (million dollars)	Ratios	
	Companies ² (no.)	Total (no.)	With 20 employees or more (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						Specialization ⁷ (per cent)	Coverage ⁸ (per cent)
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.															
1992 Census	2 644	2 754	589	51.1	889.4	42.3	81.0	607.9	2 007.0	1 726.6	3 716.8	67.7	537.9	95	94
1991 ASM	(NA)	(NA)	(NA)	58.1	936.1	47.7	93.1	675.1	1 890.2	1 922.7	3 816.0	60.9	583.1	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	61.1	944.8	50.3	93.3	668.1	1 995.3	1 894.8	3 871.8	67.2	577.2	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	56.6	872.6	45.7	90.0	616.4	1 850.9	1 780.0	3 585.5	88.9	534.4	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	54.0	817.4	45.0	84.0	567.2	1 667.3	1 572.5	3 241.5	41.2	508.0	(NA)	(NA)
1987 Census	3 223	3 324	671	56.3	824.2	46.7	86.5	577.4	1 726.0	1 587.0	3 295.5	74.3	489.8	95	94

¹In annual survey of manufactures (ASM) years, data are estimates based on a representative sample of establishments canvassed annually and may differ from results of a complete canvass of all establishments. ASM publication shows percentage standard errors. Unless otherwise noted, for data prior to 1977, see 1977 Census of Manufactures, vol. II, table 1 of the industry chapter.

²For the Census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Beginning in 1982, all respondents were requested to report their inventories at cost or market prior to adjustment to LIFO cost. This is a change from prior years when respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, 1982 data for inventories and value added by manufacture are not comparable to prior-year data.

⁵Cost of materials is the sum of five components: the cost of (1) parts used in the manufacture of finished goods (materials, parts, containers, and supplies incorporated into products or otherwise directly consumed in the process); (2) purchased items later resold without further manufacture; (3) fuels; (4) electricity; and (5) commissions or fees to outside parties for contract manufacturing. A separate cost for each of the five components is shown in table 3a. Detailed data on materials consumed by type, are shown in table 7.

⁶Detailed data on new machinery and equipment expenditures are provided in table 3c.

⁷Represents ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for establishments classified in the industry.

⁸Represents ratio of primary products shipped by establishments classified in industry to total shipments of such products by all manufacturing establishments, wherever classified.

Table 1b. Selected Operating Ratios for the Industry: 1992 and Earlier Years

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

Year	Payroll per employee (dollars)	Production workers as percent of total employment (percent)	Annual hours of production workers (number)	Average hourly earnings of production workers (dollars)	Cost of materials as percent of value of shipments (percent)	Cost of materials and payroll as percent of value of shipments (percent)	Value added per employee (dollars)	Payroll as percent of value added (percent)	Value added per production worker hour (dollars)
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK									
1992 Census	17 153	80	1 936	7.37	58	80	32 085	53	20.80
1991 ASM	16 129	81	2 040	7.18	55	78	32 145	50	19.54
1990 ASM	16 250	80	1 958	7.20	56	78	31 933	51	20.38
1989 ASM	15 242	79	2 041	6.45	58	82	27 177	56	16.85
1988 ASM	14 492	80	2 020	5.98	51	75	30 000	48	18.48
1987 Census	14 356	83	1 837	6.38	56	82	24 831	58	16.28
1986 ASM	13 804	80	1 822	6.67	54	77	28 054	49	19.16
1985 ASM	13 183	80	1 854	6.29	54	78	24 467	54	16.49
1984 ASM	12 075	87	1 724	5.93	56	80	22 030	55	14.76
1983 ASM	11 915	85	1 767	5.48	55	80	21 676	55	14.52
1982 Census	11 953	83	1 774	5.96	54	79	21 547	55	14.67
1981 ASM	9 507	82	1 855	4.52	55	82	15 627	61	10.26
1980 ASM	9 077	83	1 815	4.37	55	80	16 385	55	10.83
1979 ASM	8 326	83	1 811	4.14	60	85	13 337	62	8.86
1978 ASM	8 576	87	1 850	3.97	59	88	12 696	68	7.89
1977 Census	7 977	87	1 827	3.91	56	82	13 512	59	8.48
INDUSTRY 2448, WOOD PALLETS AND SKIDS									
1992 Census	15 659	82	1 915	6.94	55	76	33 498	47	21.46
1991 ASM	15 255	84	1 890	6.86	59	80	30 000	51	18.88
1990 ASM	14 721	85	1 896	6.53	59	81	28 339	52	17.63
1989 ASM	13 560	84	1 800	6.37	59	80	26 375	51	17.40
1988 ASM	13 483	85	1 842	6.00	62	85	23 253	58	14.89
1987 Census	12 763	84	1 751	6.26	59	81	24 000	53	16.23
1986 ASM	13 749	79	1 712	6.86	58	78	28 444	48	21.10
1985 ASM	14 236	82	1 908	6.30	57	79	28 222	50	18.02
1984 ASM	12 027	84	1 824	5.85	57	77	27 027	44	17.57
1983 ASM	10 533	86	1 782	4.95	60	82	18 329	57	11.99
1982 Census	10 425	83	1 777	5.05	58	81	19 027	55	12.86
1981 ASM	10 471	85	1 835	5.00	56	81	18 722	56	11.94
1980 ASM	9 816	86	1 838	4.50	58	79	19 153	50	12.12
1979 ASM	8 972	88	1 857	4.17	61	83	16 191	55	9.88
1978 ASM	8 858	89	1 888	4.04	59	81	16 547	54	9.87
1977 Census	8 069	88	1 793	3.93	57	80	14 931	54	9.44
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.									
1992 Census	16 556	81	1 955	6.81	52	78	30 407	54	19.09
1991 ASM	16 508	83	1 833	8.43	58	86	29 369	63	19.28
1990 ASM	16 875	82	1 814	7.79	59	85	27 167	62	18.28
1989 ASM	16 014	83	1 880	7.42	59	88	22 928	70	14.92
1988 ASM	13 630	87	1 894	5.94	55	82	24 093	57	14.62
1987 Census	13 037	87	1 830	5.86	55	83	20 687	63	12.98
1986 ASM	11 660	88	1 864	5.63	64	89	16 800	69	10.24
1985 ASM	11 968	88	1 882	5.63	66	91	16 552	72	10.00
1984 ASM	11 246	87	1 887	5.29	54	79	19 885	57	12.13
1983 ASM	12 070	87	2 032	5.40	55	83	18 507	65	10.43
1982 Census	11 351	88	1 923	5.27	53	80	19 541	58	11.57
1981 ASM	10 581	90	1 922	4.83	53	79	19 547	54	11.36
1980 ASM	9 189	88	1 762	4.65	57	84	15 179	61	9.74
1979 ASM	8 753	90	1 988	3.92	60	87	13 719	64	7.68
1978 ASM	8 182	90	1 873	3.91	54	79	15 023	54	8.93
1977 Census	7 551	90	1 938	3.46	53	79	13 528	56	7.77

24C-8 WOODEN CONTAINERS & MISC. WOOD PRODS.

MANUFACTURES—INDUSTRY SERIES

Table 1b. Selected Operating Ratios for the Industry: 1992 and Earlier Years—Con.

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

Year	Payroll per employee (dollars)	Production workers as percent of total employment (percent)	Annual hours of production workers (number)	Average hourly earnings of production workers (dollars)	Cost of materials as percent of value of shipments (percent)	Cost of materials and payroll as percent of value of shipments (percent)	Value added per employee (dollars)	Payroll as percent of value added (percent)	Value added per production worker hour (dollars)
INDUSTRY 2491, WOOD PRESERVING									
1992 Census	21 556	77	2 072	8.74	76	85	62 824	34	39.45
1991 ASM	19 897	78	1 901	8.86	74	83	56 205	35	38.01
1990 ASM	18 908	78	1 843	8.61	75	84	53 577	35	37.05
1989 ASM	18 463	78	1 851	8.45	75	84	47 926	39	33.33
1988 ASM	18 316	75	2 045	8.06	74	83	51 709	35	33.61
1987 Census	17 602	77	2 000	7.73	75	84	46 831	38	30.36
1986 ASM	16 315	77	1 988	7.48	72	82	45 414	38	29.48
1985 ASM	16 577	81	2 022	7.33	72	83	47 378	35	28.90
1984 ASM	16 047	82	2 080	6.94	72	83	46 280	35	27.06
1983 ASM	15 265	79	1 938	6.90	75	86	32 775	47	21.29
1982 Census	14 624	79	1 919	6.56	72	84	35 202	42	23.25
1981 ASM	14 106	80	2 031	5.89	70	83	34 114	41	21.09
1980 ASM	12 924	80	2 000	5.58	70	82	34 068	38	21.21
1979 ASM	11 922	81	2 000	5.07	70	82	30 574	39	18.96
1978 ASM	11 023	79	2 059	4.47	67	79	29 899	37	18.37
1977 Census	10 008	79	1 990	4.21	68	81	25 960	39	16.60
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS									
1992 Census	26 943	81	2 157	11.50	51	66	84 680	32	48.39
1991 ASM	25 571	81	2 158	10.73	58	75	61 171	42	34.81
1990 ASM	24 857	82	2 148	10.41	58	77	57 623	43	32.86
1989 ASM	24 622	82	2 170	10.15	53	70	66 509	37	37.38
1988 ASM	23 333	80	2 115	10.16	53	71	61 000	38	35.94
1987 Census	22 932	80	2 096	9.98	52	70	62 323	37	36.96
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.									
1992 Census	17 405	83	1 915	7.50	46	70	39 276	44	24.78
1991 ASM	16 112	82	1 952	7.25	50	75	32 534	50	20.30
1990 ASM	15 463	82	1 855	7.16	49	73	32 673	47	21.40
1989 ASM	15 417	81	1 969	6.85	49	73	32 701	47	20.57
1988 ASM	15 137	83	1 887	6.75	49	74	30 876	49	19.85
1987 Census	14 639	83	1 852	6.68	48	73	30 657	48	19.95

Note: For qualifications of data, see footnotes on table 1a.

Table 2. Industry Statistics for Selected States: 1992 and 1987

[Excludes data for auxiliaries. States with 100 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry and geographic area	1992										1987			
	All establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	All employees ² (1,000)	Value added by manufacture (million dollars)	
	Total (no.)	With 20 employees or more (no.)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK														
United States	E1	304	87	5.9	101.2	4.7	9.1	67.1	189.3	255.8	444.0	7.8	5.9	146.5
California	E1	73	29	1.8	33.2	1.4	3.0	21.8	58.5	105.6	163.0	3.3	G	(D)
Illinois	—	8	3	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Kentucky	—	4	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Michigan	—	13	6	.4	5.5	.3	.6	3.7	11.2	9.5	20.9	.4	C	7.7
Minnesota	—	3	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
New Hampshire	—	4	3	.1	1.7	.1	.2	1.3	2.5	4.2	6.2	(D)	(NA)	(NA)
New Jersey	E5	12	3	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
New York	E3	22	3	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
North Carolina	E1	13	4	.2	4.2	.2	.5	2.9	7.4	9.5	16.9	.2	C	5.6
Ohio	E2	18	3	.3	5.7	.3	.5	3.4	10.9	12.8	23.7	(D)	E	5.2
Oklahoma	—	6	3	.1	2.1	.1	.2	1.6	5.3	5.0	10.3	.2	(NA)	(NA)
Oregon	—	5	3	.3	3.0	.2	.3	2.4	5.4	8.8	13.6	(D)	C	(D)
Pennsylvania	—	9	2	.1	2.0	.1	.2	1.4	4.3	4.4	8.6	.2	C	7.4
Texas	—	16	4	.4	5.1	.3	.8	3.9	7.9	10.3	18.8	.2	E	(D)
Washington	—	10	4	.3	6.3	.3	.5	4.3	10.9	30.4	41.8	1.0	E	8.6
Wisconsin	—	9	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.3	6.2

See footnotes at end of table.

MANUFACTURES—INDUSTRY SERIES

WOODEN CONTAINERS & MISC. WOOD PRODS. 24C-9

Table 2. Industry Statistics for Selected States: 1992 and 1987—Con.

[Excludes data for auxiliaries. States with 100 employees or more are shown. For meaning of abbreviations and symbols, see Introductory text. For explanation of terms, see appendixes]

Industry and geographic area	1992										1987			
	All establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	All employees ² (1,000)	Value added by manufacture (million dollars)	
	Total (no.)	With 20 employees or more (no.)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
INDUSTRY 2448, WOOD PALLETS AND SKIDS														
United States	E1	1 912	457	28.7	449.4	23.4	44.6	311.0	961.4	1 183.8	2 143.3	52.6	25.7	616.8
Alabama	E1	44	8	.6	8.8	.6	1.1	6.7	19.8	21.4	41.4	1.2	.8	18.1
Arizona	-	17	3	.2	2.3	.2	.3	1.7	5.8	8.3	14.1	.3	(NA)	(NA)
Arkansas	-	44	17	.9	13.5	.8	1.5	9.7	27.7	43.3	71.2	(D)	.6	11.2
California	E1	103	39	2.2	39.1	1.8	3.5	26.4	87.0	117.8	204.4	3.6	2.3	61.5
Colorado	-	13	2	.1	2.1	.1	.2	1.2	4.5	3.8	8.2	.2	(NA)	(NA)
Connecticut	-	14	3	.2	3.7	.2	.3	2.6	7.0	7.7	14.8	(D)	C	(D)
Florida	E6	31	7	.5	7.1	.4	.7	5.3	15.3	23.2	38.4	.9	.4	9.5
Georgia	E1	63	16	1.1	18.2	.9	1.7	12.1	38.2	42.4	80.7	1.9	.9	19.0
Idaho	E8	10	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Illinois	E2	75	21	1.1	17.9	.9	1.7	12.4	36.3	41.7	77.9	2.0	F	(D)
Indiana	E1	105	23	1.5	19.6	1.2	2.1	14.4	43.0	46.9	89.8	2.1	G	(D)
Iowa	-	37	7	.6	10.0	.5	.9	6.5	21.0	27.3	47.8	1.4	E	(D)
Kansas	(D)	14	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Kentucky	E1	63	16	.9	11.4	.8	1.5	8.7	26.2	36.0	64.0	1.6	1.0	21.5
Louisiana	-	26	5	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Maine	-	10	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
Maryland	E3	12	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
Massachusetts	E1	28	2	.2	3.4	.2	.3	2.3	6.6	7.7	14.5	.3	E	(D)
Michigan	E1	113	23	1.5	26.5	1.2	2.3	17.0	66.2	84.6	149.7	2.5	1.6	45.2
Minnesota	E1	38	5	.3	5.0	.3	.5	3.4	9.8	13.9	23.6	.5	E	(D)
Mississippi	-	38	12	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.5	.7	17.2
Missouri	-	78	16	1.1	16.6	.9	1.8	11.7	37.9	45.0	82.3	2.4	1.1	23.8
Nebraska	-	15	3	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
New Jersey	E2	32	3	.3	5.2	.2	.4	3.2	11.3	11.8	23.0	.2	.3	10.5
New York	E2	57	12	.7	13.6	.6	1.2	9.7	29.6	31.0	60.6	2.4	1.0	19.3
North Carolina	-	70	28	1.5	24.8	1.2	2.5	16.2	46.4	55.3	101.9	3.1	1.0	23.4
Ohio	E1	142	31	1.9	27.7	1.5	3.0	19.2	62.1	71.5	133.9	3.2	G	(D)
Oregon	-	15	4	.2	4.1	.2	.4	2.6	8.0	13.0	21.0	1.2	.3	7.3
Pennsylvania	E1	154	28	1.8	29.4	1.5	2.8	21.2	73.9	82.3	156.3	3.8	1.5	36.7
South Carolina	E1	33	7	.5	5.5	.4	.7	4.2	12.1	14.6	26.8	.3	.3	6.0
Tennessee	E1	90	12	.9	12.7	.8	1.4	8.7	26.4	34.0	60.3	1.6	1.0	23.9
Texas	E1	79	28	1.8	27.1	1.5	3.0	18.6	52.3	73.1	125.4	3.5	1.5	30.2
Utah	-	12	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	(NA)	(NA)
Virginia	E2	47	6	.9	16.4	.8	1.5	11.2	28.7	36.2	65.8	3.0	F	(D)
Washington	-	23	6	.6	9.2	.5	.8	6.3	13.0	24.3	37.2	.8	.4	11.4
West Virginia	-	14	4	A	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	E	(D)
Wisconsin	-	96	31	1.7	28.3	1.4	2.7	19.8	53.5	64.5	117.8	2.1	1.4	34.0
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.														
United States	E2	225	50	5.4	89.4	4.4	8.6	58.6	184.2	178.0	343.3	6.1	5.4	111.6
Alabama	E9	6	3	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
Arkansas	-	4	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
California	E3	38	4	.5	6.3	.3	.6	4.3	14.7	23.5	38.6	.7	.7	3.7
Florida	E4	9	3	.3	4.5	.3	.5	3.4	6.1	12.3	18.1	(D)	.3	(D)
Georgia	E1	6	3	.7	10.5	.6	1.2	6.9	21.4	17.9	39.1	(D)	.7	15.7
Kentucky	-	7	3	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
Mississippi	-	4	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
Missouri	-	6	2	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	4.6
North Carolina	E4	13	5	.6	7.6	.5	1.0	5.6	10.8	14.1	24.9	.5	.7	9.0
South Carolina	E6	6	5	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	9.0
Tennessee	-	5	3	.3	4.8	.3	.6	3.4	6.5	8.0	14.5	.1	E	(D)
Texas	E1	14	3	.3	4.0	.2	.5	3.0	7.1	5.4	11.9	.1	(NA)	(NA)
Wisconsin	-	6	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.2	9.2
INDUSTRY 2491, WOOD PRESERVING														
United States	E1	486	178	10.8	232.8	8.3	17.2	150.4	678.5	2 046.7	2 694.8	56.2	11.8	552.6
Alabama	-	29	19	1.3	27.4	1.0	2.1	17.3	70.9	227.4	298.4	8.6	1.0	41.2
Arkansas	-	12	8	.5	10.4	.4	.8	7.1	31.5	94.4	122.7	1.7	.4	12.8
California	E4	25	5	.3	6.4	.2	.5	4.1	19.2	40.3	57.7	1.9	.6	31.0
Florida	E1	18	7	.3	7.0	.2	.5	3.7	20.7	93.9	113.4	1.1	.3	11.7
Georgia	-	24	8	.5	10.9	.4	.7	6.2	33.6	102.6	134.4	2.9	.8	38.1
Illinois	-	16	3	.2	4.8	.2	.3	3.5	15.2	44.2	59.8	3.0	.2	11.5
Kentucky	E3	11	5	.2	3.6	.1	.3	2.0	8.4	34.6	43.0	(D)	C	(D)
Louisiana	-	12	4	.2	4.6	.2	.4	3.2	11.4	31.3	43.2	(D)	.3	14.3
Maryland	-	8	2	.1	2.9	.1	.2	1.8	14.4	51.1	66.0	(D)	C	(D)
Massachusetts	-	7	3	.1	2.4	.1	.2	1.6	8.1	45.9	52.4	.9	(NA)	(NA)
Minnesota	E2	11	4	.2	4.1	.2	.4	2.3	11.8	31.2	43.1	(D)	C	(D)
Mississippi	-	18	9	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	33.1
Missouri	E1	14	3	.3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
New Jersey	E2	5	3	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
North Carolina	E1	31	10	.5	10.0	.4	.8	6.2	31.2	140.2	166.8	2.2	.6	39.8
Ohio	E1	16	3	.2	4.1	.2	.3	2.7	11.3	40.7	49.9	(D)	C	(D)
Oregon	E1	13	7	.3	8.4	.3	.6	6.1	24.0	48.7	71.0	1.8	.6	27.2
Pennsylvania	E1	21	7	.4	7.5	.3	.6	5.5	21.6	85.6	107.9	1.5	E	(D)
South Carolina	-	16	6	.7	16.2	.6	1.2	10.2	42.8	140.4	180.7	3.7	.8	27.5
Tennessee	-	9	2	.2	3.6	.2	.4	2.5	4.4	35.1	42.1	.8	E	(D)

See footnotes at end of table.

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MANUFACTURES—INDUSTRY SERIES

Table 2. Industry Statistics for Selected States: 1992 and 1987—Con.

[Excludes data for auxiliaries. States with 100 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry and geographic area	E1	1992							1987					
		All establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	All employees ² (1,000)	Value added by manufacture (million dollars)
		Total (no.)	With 20 employees or more (no.)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
INDUSTRY 2491, WOOD PRESERVING—Con.														
Texas	E1	26	12	.8	15.0	.6	1.3	11.0	45.4	75.8	115.1	2.1	F	(D)
Virginia	E1	20	12	.8	18.7	.6	1.2	10.9	55.6	182.7	237.6	7.0	1.0	49.0
Washington		16	12	.7	19.8	.6	1.1	12.8	67.8	127.0	191.9	2.8	.5	25.4
West Virginia	E3	9	4	.2	4.1	.2	.4	2.9	11.7	47.0	57.5	1.1	C	(D)
Wisconsin		12	5	.2	6.3	.2	.4	3.8	9.2	64.7	74.6	.8	.2	11.1
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS														
United States		288	180	22.8	614.3	18.5	39.9	458.8	1 930.7	2 029.8	3 980.6	142.8	22.0	1 371.1
Alabama		7	3	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	.3	29.7
Arkansas		3	3	.4	10.9	.3	.8	8.4	27.7	31.2	59.1	.2	.4	21.1
California		27	16	1.5	38.1	1.2	2.5	28.7	90.2	136.9	229.0	6.3	1.3	82.0
Colorado		4	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
Georgia		14	10	1.2	29.4	.9	2.0	21.9	132.7	127.3	260.4	13.5	.6	42.8
Idaho		3	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	C	(D)
Illinois	E2	9	7	.8	14.2	.6	1.3	8.5	26.8	33.1	59.9	1.7	.7	21.3
Indiana		12	6	.4	7.1	.3	.6	4.9	24.7	12.3	36.6	3.5	.3	8.3
Louisiana		6	5	.9	24.9	.8	1.7	20.3	55.9	76.7	134.0	(D)	.8	33.1
Maine		4	4	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Michigan		16	11	1.4	43.5	1.1	2.3	31.7	163.9	134.6	300.1	8.4	1.3	89.6
Minnesota		11	8	1.3	40.8	1.1	2.2	33.5	202.7	118.9	325.8	8.4	.6	(D)
Mississippi		8	5	G	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.9	81.9
Montana		3	2	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
New Mexico		3	2	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
New York		3	3	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
North Carolina		20	17	2.1	54.0	1.7	3.7	38.1	105.2	182.3	286.9	14.0	2.2	91.4
North Dakota		1	1	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Ohio		8	4	.4	11.4	.3	.5	5.6	46.1	38.4	84.6	(D)	F	(D)
Oregon		24	22	2.4	76.2	1.9	4.2	56.5	182.6	279.0	461.9	11.2	2.5	192.6
Pennsylvania		11	5	1.0	32.7	.9	2.0	26.2	119.9	84.0	203.2	8.3	F	(D)
South Carolina		9	7	1.0	25.6	.8	1.7	19.9	54.8	88.4	143.5	7.0	F	(D)
South Dakota		1	1	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Texas		16	11	1.1	29.9	.9	2.1	23.3	126.5	122.7	251.0	10.5	F	(D)
Virginia		11	9	1.3	32.7	1.1	2.4	24.0	98.5	96.5	197.0	4.9	1.5	90.1
Washington		10	5	.3	6.6	.2	.5	4.0	20.1	18.8	38.8	2.1	(NA)	(NA)
Wisconsin		8	7	.9	24.8	.7	1.6	18.0	108.4	101.7	211.6	2.7	.6	54.6
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.														
United States	E2	2 754	589	51.1	889.4	42.3	81.0	607.9	2 007.0	1 726.6	3 716.8	67.7	56.3	1 726.0
Alabama		54	9	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	3.5	1.0	29.3
Arizona	E5	30	8	.4	5.3	.3	.5	3.3	9.5	9.1	19.0	.2	.3	8.2
Arkansas		47	12	1.4	19.8	1.3	2.4	15.2	54.6	48.9	103.5	1.6	1.5	35.9
California	E1	309	64	6.6	121.3	5.3	10.2	75.9	270.3	298.3	561.2	7.5	7.3	210.5
Colorado	E6	35	2	.2	2.8	.2	.3	1.9	7.1	4.4	11.3	(D)	C	(D)
Connecticut	E1	21	4	.3	5.1	.2	.4	4.0	10.1	14.2	24.1	(D)	E	(D)
Florida	E3	92	17	1.4	20.3	1.1	2.0	12.7	45.0	57.1	102.1	1.3	1.3	40.6
Georgia	E4	51	11	.7	10.9	.6	1.0	7.3	21.7	27.2	48.7	1.1	1.7	55.1
Idaho	E2	16	1	.1	1.6	.1	.2	1.2	3.5	4.4	7.7	(D)	E	(D)
Illinois	E4	106	25	2.8	48.8	2.0	4.0	30.8	94.8	73.8	170.2	2.2	2.7	83.8
Indiana	E1	85	22	1.7	27.0	1.3	2.6	18.0	49.6	54.9	104.5	(D)	1.4	37.7
Iowa		32	5	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	F	(D)
Kansas	E1	23	5	.3	3.8	.2	.4	3.0	13.5	5.9	19.5	.2	E	(D)
Kentucky	E1	30	8	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.2	.5	16.3
Louisiana	E1	21	4	.2	3.1	.2	.4	2.3	6.8	7.5	14.4	.4	2	6.5
Maine	E1	63	27	2.8	49.8	2.4	5.0	38.0	100.9	55.8	155.8	3.0	3.5	102.5
Maryland	E4	24	8	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.5	.6	18.8
Massachusetts	E4	65	12	1.1	22.7	.9	1.7	15.2	47.0	45.2	92.1	.8	1.4	41.8
Michigan	E1	87	13	1.0	21.3	.8	1.6	13.6	46.8	49.0	96.0	1.3	1.6	58.8
Minnesota		62	14	.9	14.1	.8	1.4	10.1	30.9	28.9	59.6	(D)	F	(D)
Mississippi	E4	50	15	2.4	38.3	2.0	4.2	26.4	85.4	79.0	164.6	5.4	2.1	66.0
Missouri	E2	89	21	1.6	22.3	1.3	2.4	15.6	52.9	46.0	98.3	1.7	1.4	39.7
Montana	E2	22	4	.2	2.7	.2	.3	2.0	5.4	4.7	10.1	.1	(NA)	(NA)
New Hampshire	E1	41	11	.7	14.5	.6	1.2	9.7	27.4	16.6	44.4	1.0	1.1	34.1
New Jersey	E2	43	7	.5	9.0	.3	.7	5.3	17.5	21.9	40.0	.3	F	(D)
New York	E1	168	49	3.1	60.8	2.5	4.9	39.2	107.8	95.7	202.4	(D)	H	(D)
North Carolina	E4	111	38	2.5	45.2	2.2	4.0	32.2	116.0	87.2	203.1	3.3	3.1	113.2
Ohio		142	28	4.1	75.0	3.6	6.7	57.9	277.5	124.5	397.7	8.2	2.3	81.4
Oklahoma	E1	21	4	.2	4.1	.2	.3	2.8	10.0	8.9	18.8	.2	2	4.3
Oregon	E2	96	12	.9	12.6	.7	1.2	7.9	26.6	25.9	52.3	1.0	1.0	28.2
Pennsylvania	E2	108	13	.9	16.1	.8	1.5	12.0	31.7	35.3	67.2	1.1	1.8	53.2
South Carolina	E4	32	9	.6	8.7	.5	1.0	6.3	17.2	15.8	32.8	.7	F	(D)
Tennessee	E1	71	22	1.5	21.2	1.3	2.3	14.9	46.3	41.3	86.4	1.1	G	(D)
Texas	E4	129	25	2.6	42.6	2.2	4.4	30.4	101.8	88.0	189.0	3.5	3.3	96.5
Utah	E1	18	3	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

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Table 2. Industry Statistics for Selected States: 1992 and 1987—Con.

[Excludes data for auxiliaries. States with 100 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry and geographic area	1992											1987		
	E ¹	All establishments		All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	All employees ² (1,000)	Value added by manufacture (million dollars)
		Total (no.)	With 20 employees or more (no.)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.—Con.														
Vermont.....	—	35	9	.7	14.5	.5	1.1	10.5	29.6	30.2	59.8	(D)	F	(D)
Virginia.....	—	56	17	1.4	23.4	1.1	2.1	14.3	38.4	35.9	71.9	1.7	1.8	46.3
Washington.....	E2	76	12	.9	18.9	.7	1.2	11.3	38.2	31.3	68.0	1.6	G	(D)
West Virginia.....	E1	19	1	.2	2.1	.1	.2	1.5	6.2	5.6	12.0	.5	E	(D)
Wisconsin.....	E2	94	18	1.6	27.5	1.4	2.5	20.7	51.8	42.2	93.0	2.2	1.0	29.0

Note: For qualifications of data, see footnotes on table 1a.

¹Payroll and sales data for some 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 the items shown 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 for those States where estimated value of shipments data based on administrative-record data account for 10 percent or more of figure shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²Statistics for some producing States have been withheld to avoid disclosing data for individual companies. However, for States with 100 employees or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: C—100 to 249 employees; E—250 to 499 employees; F—500 to 999 employees; G—1,000 to 2,499 employees; H—2,500 to 4,999 employees; I—5,000 to 9,999 employees; J—10,000 to 24,999 employees; K—25,000 to 49,999 employees; L—50,000 to 99,999 employees; M—100,000 employees or more.

Table 3a. Summary Statistics for the Industry: 1992

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

Item	Nailed wood boxes and shooks (SIC 2441)	Wood pallets and skids (SIC 2448)	Wood containers, n.e.c. (SIC 2449)	Wood preserving (SIC 2491)	Reconstituted wood products (SIC 2493)	Wood products, n.e.c. (SIC 2499)
Companies.....number.....	291	1 883	217	407	195	2 644
All establishments.....number.....	304	1 912	225	486	288	2 754
With 1 to 19 employees.....number.....	217	1 455	175	307	108	2 165
With 20 to 99 employees.....number.....	80	437	35	168	80	500
With 100 employees or more.....number.....	7	20	15	11	100	89
Employment and labor costs:						
Employees.....1,000.....	5.9	28.7	5.4	10.8	22.8	51.1
Compensation, total.....mil dol.....	124.8	534.0	108.3	286.1	779.9	1 094.7
Annual payroll.....mil dol.....	101.2	449.4	89.4	232.8	614.3	889.4
Fringe benefits.....mil dol.....	23.6	84.5	18.9	53.3	165.6	205.3
Social Security and other legally required payments.....mil dol.....	11.8	50.6	10.4	26.1	76.6	104.8
Employer voluntary payments.....mil dol.....	11.8	34.0	8.4	27.1	89.0	100.5
Production workers:						
Average for year.....1,000.....	4.7	23.4	4.4	8.3	18.5	42.3
March.....1,000.....	4.7	23.3	4.6	8.5	18.3	42.0
May.....1,000.....	4.9	23.6	4.5	8.6	18.6	42.0
August.....1,000.....	4.9	23.9	4.3	8.4	18.7	42.5
November.....1,000.....	4.4	23.0	4.1	7.8	18.6	42.8
Hours.....millions.....	9.1	44.8	8.6	17.2	39.9	81.0
Wages.....mil dol.....	67.1	311.0	58.6	150.4	458.8	607.9
Cost of materials ¹.....mil dol.....	255.8	1 183.8	178.0	2 046.7	2 029.8	1 726.6
Materials, parts, containers, etc., consumed ².....mil dol.....	220.2	1 080.6	160.7	1 913.0	1 727.8	1 533.1
Resales.....mil dol.....	22.9	49.7	8.6	78.7	22.3	112.7
Fuels.....mil dol.....	1.9	11.7	1.2	20.1	72.8	15.9
Purchased electricity.....mil dol.....	4.9	28.1	4.7	16.6	187.7	45.6
Contract work.....mil dol.....	5.8	13.7	2.7	18.3	19.2	19.3
Quantity of electric energy used for heat and power:						
Purchased.....mil kWh.....	72.9	450.6	87.4	285.5	4 067.5	713.1
Generated less sold.....mil kWh.....	—	(D)	—	(D)	(D)	(D)
Total value of shipments.....mil dol.....	444.0	2 143.3	343.3	2 694.8	3 980.6	3 716.8
Value added.....mil dol.....	189.3	961.4	164.2	678.5	1 930.7	2 007.0
Inventories by stage of fabrication:						
Beginning of 1992.....mil dol.....	47.6	153.2	66.1	425.5	303.6	509.4
Finished goods.....mil dol.....	17.0	29.6	18.2	240.1	122.6	226.7
Work in process.....mil dol.....	7.0	25.1	8.5	113.2	31.4	91.6
Materials and supplies.....mil dol.....	23.7	98.5	39.4	72.2	149.6	191.2
End of 1992.....mil dol.....	49.3	154.2	59.9	458.4	302.3	537.9
Finished goods.....mil dol.....	18.7	30.3	17.1	270.5	107.6	236.5
Work in process.....mil dol.....	6.3	26.4	8.5	113.1	26.4	98.5
Materials and supplies.....mil dol.....	24.2	97.6	34.3	74.7	168.4	202.9

Note: For qualifications of data, see footnotes on table 1a.

¹Data on purchased services for the repair of buildings and machinery and for communication services are not included in cost of materials, etc., but are shown in table 3c.

²Data on materials consumed by type are shown in table 7. Data on amount purchased or transferred from foreign sources are shown in table 3c.

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Table 3b. Gross Book Value of Depreciable Assets, Capital Expenditures, Retirements, Depreciation, and Rental Payments: 1992

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

Item	Nailed wood boxes and shooK (SIC 2441)	Wood pallets and skids (SIC 2448)	Wood containers, n.e.c. (SIC 2449)	Wood preserving (SIC 2491)	Reconstituted wood products (SIC 2493)	Wood products, n.e.c. (SIC 2499)
Gross book value of depreciable assets:						
Total:						
Beginning of year	88.7	559.8	84.4	521.7	3 141.3	972.1
New capital expenditures ¹	7.8	52.8	6.1	56.2	142.8	67.7
Used capital expenditures .....	.9	10.1	.6	7.4	5.1	9.4
Retirements	1.5	14.1	1.3	14.9	54.0	18.5
End of year	96.0	608.5	89.9	570.4	3 235.1	1 030.7
Buildings and other structures:						
Beginning of year	18.9	112.9	16.4	96.2	453.5	209.5
New capital expenditures	2.5	10.6	1.3	23.2	10.7	11.5
Used capital expenditures	(Z)	1.0	.2	1.0	.2	1.0
Retirements	(Z)	2.1	(Z)	.8	4.5	1.4
End of year	21.4	122.5	17.8	119.6	460.0	220.6
Machinery and equipment:						
Beginning of year	69.8	446.8	68.0	425.6	2 687.8	762.6
New capital expenditures ¹	5.3	42.2	4.8	32.9	132.1	56.1
Used capital expenditures .....	.9	9.1	.4	6.5	4.9	8.4
Retirements	1.5	12.0	1.2	14.2	49.6	17.1
End of year	74.6	486.0	72.0	450.8	2 775.1	810.1
Depreciation charges during 1992:						
Total:	8.4	57.5	7.4	38.8	183.1	62.5
Buildings and other structures	1.2	8.4	.9	6.4	20.3	10.3
Machinery and equipment	7.2	49.0	6.5	32.5	162.9	52.2
Rental payments:						
Total:	6.8	25.9	3.2	15.5	10.4	48.1
Buildings and other structures	3.8	14.5	1.6	9.0	5.4	28.3
Machinery and equipment	3.0	11.4	1.6	6.4	5.0	19.8

¹Data on new machinery and equipment expenditures by type are provided in table 3c.

Table 3c. Supplemental Industry Statistics Based on Sample Estimates: 1992

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

Item	Nailed wood boxes and shooK (SIC 2441)		Wood pallets and skids (SIC 2448)		Wood containers, n.e.c. (SIC 2449)	
	Amount (million dollars)	Relative standard error of estimate ¹ (percent)	Amount (million dollars)	Relative standard error of estimate ¹ (percent)	Amount (million dollars)	Relative standard error of estimate ¹ (percent)
Purchased services:						
Cost of purchased services for the repair of—						
Buildings and other structures .....	.5	(X)	3.8	(X)	.2	(X)
Response coverage ratio (percent) ²	67.6	(X)	87.2	(X)	81.4	(X)
Machinery	1.1	(X)	22.3	(X)	2.8	(X)
Response coverage ratio (percent) ²	68.6	(X)	69.0	(X)	81.4	(X)
Other purchased services:						
Communications	1.5	(X)	3.9	(X)	.4	(X)
Response coverage ratio (percent) ²	68.2	(X)	82.9	(X)	81.4	(X)
Legal .....	.2	(X)	2.0	(X)	.4	(X)
Response coverage ratio (percent) ²	68.6	(X)	66.5	(X)	81.4	(X)
Accounting and bookkeeping .....	.5	(X)	3.3	(X)	.4	(X)
Response coverage ratio (percent) ²	67.9	(X)	68.6	(X)	81.4	(X)
Advertising .....	.4	(X)	1.9	(X)	.1	(X)
Response coverage ratio (percent) ²	67.6	(X)	66.6	(X)	81.4	(X)
Software and other data processing .....	.2	(X)	.3	(X)	.1	(X)
Response coverage ratio (percent) ²	67.6	(X)	62.8	(X)	81.4	(X)
Refuse removal, including hazardous waste .....	.2	(X)	2.5	(X)	.2	(X)
Response coverage ratio (percent) ²	68.6	(X)	64.2	(X)	81.4	(X)
New machinery and equipment expenditures	5.3	(X)	42.2	(X)	4.8	(X)
Automobiles, trucks, etc., for highway use	(S)	(X)	6.9	20	1.0	6
Computers and peripheral data processing equipment	(S)	(X)	2.4	61	(Z)	(X)
All other	(S)	(X)	32.8	6	3.6	3
Adjustment ratio ³	(S)	(X)	1.5	(X)	1.9	(X)
Cost of materials, components, parts, etc., used	220.2	(X)	1 080.6	(X)	160.7	(X)
Materials purchased or transferred from foreign sources ⁴ .....	.7	36	20.6	22	1.3	19
Materials purchased or transferred from domestic sources	219.5	1	1 060.0	1	159.4	1
Adjustment ratio ³	1.5	(X)	1.5	(X)	1.6	(X)

See footnotes at end of table.

Table 3c. Supplemental Industry Statistics Based on Sample Estimates: 1992—Con.

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

Item	Wood preserving (SIC 2491)		Reconstituted wood products (SIC 2493)		Wood products, n.e.c. (SIC 2499)	
	Amount (million dollars)	Relative standard error of estimate ¹ (percent)	Amount (million dollars)	Relative standard error of estimate ¹ (percent)	Amount (million dollars)	Relative standard error of estimate ¹ (percent)
Purchased services:						
Cost of purchased services for the repair of—						
Buildings and other structures	2.2	(X)	5.0	(X)	4.0	(X)
Response coverage ratio (percent) ²	54.8	(X)	91.2	(X)	72.2	(X)
Machinery	19.9	(X)	78.6	(X)	28.1	(X)
Response coverage ratio (percent) ²	55.3	(X)	93.6	(X)	75.9	(X)
Other purchased services:						
Communications	2.8	(X)	4.9	(X)	6.1	(X)
Response coverage ratio (percent) ²	50.2	(X)	89.3	(X)	62.6	(X)
Legal	2.1	(X)	2.0	(X)	4.0	(X)
Response coverage ratio (percent) ²	54.7	(X)	92.2	(X)	72.0	(X)
Accounting and bookkeeping	2.5	(X)	1.7	(X)	6.5	(X)
Response coverage ratio (percent) ²	55.0	(X)	92.0	(X)	75.0	(X)
Advertising	2.5	(X)	3.3	(X)	10.6	(X)
Response coverage ratio (percent) ²	52.0	(X)	92.8	(X)	69.6	(X)
Software and other data processing	1.1	(X)	1.2	(X)	1.5	(X)
Response coverage ratio (percent) ²	54.8	(X)	91.1	(X)	70.1	(X)
Refuse removal, including hazardous waste	5.4	(X)	5.3	(X)	3.3	(X)
Response coverage ratio (percent) ²	51.5	(X)	93.6	(X)	70.8	(X)
New machinery and equipment expenditures	32.9	(X)	132.1	(X)	56.1	(X)
Automobiles, trucks, etc., for highway use	4.0	31	1.0	9	5.4	54
Computers and peripheral data processing equipment	.8	25	1.4	9	1.7	34
All other	28.1	5	129.6	1	49.1	7
Adjustment ratio ³	1.7	(X)	1.2	(X)	.8	(X)
Cost of materials, components, parts, etc., used	1 913.0	(X)	1 727.8	(X)	1 533.1	(X)
Materials purchased or transferred from foreign sources ⁴	.1	12	85.8	61	(S)	(X)
Materials purchased or transferred from domestic sources	1 912.9	1	1 642.0	4	(S)	(X)
Adjustment ratio ³	1.7	(X)	1.4	(X)	(S)	(X)

Note: The amounts shown for purchased services reflect only those services that establishments purchase from other companies. Amounts purchased by separate central administrative offices and services provided to establishments by central administrative offices are excluded.

¹For description of relative standard error of estimate, see Qualifications of the Data in appendixes.

²A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight, see appendix B) for those ASM establishments that reported to the weighted total employment for all ASM establishments classified in the industry.

³Detail has been adjusted upwards to account for nonresponse. Inverse of the ratio shown represents a measure of the response of the inquiry. (See appendixes for further explanation.)

⁴Data may understate the true cost of imported parts, components, and supplies since some respondents do not know the origin of these materials. Includes cases where materials were purchased from secondary suppliers or where they were transferred from company-operated warehouses or other distribution points. Direct purchases from foreign suppliers and importers by domestic manufacturing establishments are believed to be reported accurately.

Table 4. Industry Statistics by Employment Size of Establishment: 1992

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

Industry and employment size class	E ¹	All establishments (no.)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
			Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK												
Total	E1	304	5.9	101.2	4.7	9.1	67.1	189.3	255.8	444.0	7.8	49.3
Establishments with an average of—												
1 to 4 employees	E6	79	.2	2.6	.1	.2	1.7	5.6	6.0	11.6	.4	.7
5 to 9 employees	E1	68	.5	8.9	.4	.7	6.2	18.6	18.3	34.7	.8	3.2
10 to 19 employees	E1	70	1.0	16.8	.8	1.5	10.9	33.3	29.7	62.9	1.0	4.0
20 to 49 employees	E1	60	1.8	32.8	1.4	2.7	20.0	60.7	72.1	132.8	1.6	14.9
50 to 99 employees	—	20	1.4	25.8	1.2	2.5	18.1	42.7	85.6	129.6	1.6	13.7
100 to 249 employees	—	7	1.0	14.3	.9	1.6	10.2	28.4	46.1	72.4	2.4	12.7
Covered by administrative records ²	E9	77	.2	2.8	.2	.3	1.8	4.6	6.0	10.7	.3	.6
INDUSTRY 2448, WOOD PALLETS AND SKIDS												
Total	E1	1 912	28.7	449.4	23.4	44.8	311.0	961.4	1 183.8	2 143.3	52.8	154.2
Establishments with an average of—												
1 to 4 employees	E6	576	1.2	16.6	1.0	1.9	12.3	37.1	49.0	86.2	2.4	6.4
5 to 9 employees	E2	427	2.9	38.3	2.3	4.2	28.2	94.6	98.1	189.9	4.2	14.2
10 to 19 employees	E1	452	6.4	95.1	5.2	9.6	66.3	218.3	258.1	476.7	11.8	31.8
20 to 49 employees	—	361	10.7	169.0	8.8	18.8	118.2	360.6	437.4	798.9	18.0	57.7
50 to 99 employees	E1	76	4.8	82.6	4.0	7.9	57.6	160.1	210.1	370.2	13.1	24.8
100 to 249 employees	E1	20	2.6	47.8	2.1	4.3	30.5	90.6	133.1	221.4	3.3	19.4
Covered by administrative records ²	E9	545	1.6	16.8	1.3	2.1	11.8	35.2	50.6	85.7	2.7	7.1

See footnotes at end of table.

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Table 4. Industry Statistics by Employment Size of Establishment: 1992—Con.

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

Industry and employment size class	E ¹	All establishments (no.)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
			Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.												
Total	E2	225	5.4	89.4	4.4	8.6	58.6	164.2	178.0	343.3	6.1	59.9
Establishments with an average of—												
1 to 4 employees	E7	106	.2	2.9	.1	.3	2.0	5.4	7.6	13.1	.3	1.1
5 to 9 employees	E4	38	.2	3.6	.2	.3	2.5	7.2	8.7	15.9	.3	1.3
10 to 19 employees	E1	31	.4	6.2	.3	.6	4.3	13.4	21.1	35.0	.7	3.9
20 to 49 employees	E3	17	.5	8.4	.5	.9	6.2	16.2	20.3	37.1	.8	4.2
50 to 99 employees	E2	18	1.2	20.1	1.0	2.0	12.9	35.6	31.9	67.5	.5	10.2
100 to 249 employees	E2	13	2.7	48.2	2.2	4.5	30.6	86.3	88.4	174.7	3.7	39.3
250 to 499 employees	-	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Covered by administrative records ²	E9	120	.4	3.7	.3	.5	2.6	7.1	9.2	16.3	.4	1.3
INDUSTRY 2491, WOOD PRESERVING												
Total	E1	488	10.8	232.8	8.3	17.2	150.4	678.5	2 046.7	2 694.8	56.2	458.4
Establishments with an average of—												
1 to 4 employees	E8	120	.2	4.0	.2	.3	2.7	9.9	30.2	39.9	1.0	7.2
5 to 9 employees	E3	90	.6	12.1	.5	1.0	8.2	35.8	105.7	140.4	2.4	24.0
10 to 19 employees	E1	97	1.4	26.6	1.0	1.9	18.4	90.7	303.7	381.9	6.3	64.4
20 to 49 employees	-	121	3.8	86.3	2.8	6.0	51.9	280.0	886.0	1 152.0	17.4	185.0
50 to 99 employees	-	47	3.2	70.9	2.6	5.3	49.3	188.8	505.6	690.1	22.9	137.9
100 to 249 employees	E1	11	1.6	32.9	1.3	2.7	21.9	73.3	215.4	290.5	6.2	36.9
Covered by administrative records ²	E9	129	.3	4.5	.3	.5	3.0	9.6	33.2	42.8	1.1	7.7
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS												
Total	-	288	22.8	614.3	18.5	39.9	458.8	1 930.7	2 029.8	3 980.6	142.8	302.3
Establishments with an average of—												
1 to 4 employees	E9	38	.1	1.3	.1	.1	1.0	2.7	3.4	6.1	.2	.7
5 to 9 employees	E3	36	.2	4.8	.2	.4	3.4	9.8	11.6	23.6	.6	1.8
10 to 19 employees	E3	34	.5	9.6	.4	.7	6.3	19.1	23.0	41.8	1.1	3.8
20 to 49 employees	-	49	1.7	38.1	1.3	2.9	25.5	110.1	164.9	276.0	9.1	31.1
50 to 99 employees	-	31	2.1	60.4	1.7	3.5	40.6	142.5	194.9	340.9	11.9	31.8
100 to 249 employees	-	85	12.8	354.0	10.3	22.8	265.7	1 259.6	1 234.9	2 506.8	84.3	160.3
250 to 499 employees	-	13	5.4	146.1	4.6	9.6	116.3	386.9	397.0	785.3	35.4	72.9
500 to 999 employees	-	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Covered by administrative records ²	E9	54	.3	4.3	.2	.5	3.2	7.4	10.5	17.9	.8	1.8
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.												
Total	E2	2 754	51.1	889.4	42.3	81.0	607.9	2 007.0	1 726.6	3 718.8	67.7	537.9
Establishments with an average of—												
1 to 4 employees	E7	1 224	2.2	32.0	2.0	3.2	22.1	72.0	70.4	142.0	2.1	18.6
5 to 9 employees	E3	540	3.8	54.8	2.9	5.1	38.9	119.8	113.7	232.1	3.6	29.8
10 to 19 employees	E1	401	5.5	95.1	4.4	8.3	63.7	206.2	203.8	407.8	7.2	57.1
20 to 49 employees	E1	375	11.5	199.3	9.3	17.4	130.7	408.8	399.7	806.6	16.1	111.9
50 to 99 employees	E1	125	8.5	155.5	6.9	14.3	103.1	302.3	259.3	561.8	9.7	84.7
100 to 249 employees	E1	67	9.9	177.9	8.2	16.1	117.4	366.1	334.7	693.7	12.8	109.1
250 to 499 employees	E4	17	5.8	94.5	5.0	9.3	68.4	225.6	186.1	410.2	5.1	75.5
500 to 999 employees	E5	4	4.0	80.5	3.5	7.3	63.6	306.1	158.8	462.9	11.1	51.1
1,000 to 2,499 employees	-	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Covered by administrative records ²	E9	1 231	3.0	33.3	2.7	3.8	22.4	68.4	77.0	145.5	2.0	19.2

Note: For qualifications of data, see footnotes on table 1a. Data shown as (D) are included in underscored figures above.

¹Payroll and sales data for some small single-establishment manufacturing 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 the items shown 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 for those employment-size classes where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²Report forms were not mailed to small single-establishment companies with up to 20 employees (cutoff varied by industry). Payroll and sales data for 1992 were obtained from administrative records supplied by other agencies of the Federal Government. Those data were then used in conjunction with industry averages to estimate the items shown. Data are also included in respective employment-size classes shown.

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Table 5a. Industry Statistics by Industry and Primary Product Class Specialization: 1992

[Table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. Measures of plant specialization shown are (1) industry specialization: ratio of primary product shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment; and (2) product class specialization: ratio of largest primary product class shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment. See appendix for method of computing ratios. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry or product class code	Industry or primary product class	All establishments (number)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)
			Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
2441	Nailed wood boxes and shook: All establishments in industry	304	5.9	101.2	4.7	9.1	67.1	189.3	255.8	444.0	7.8
	Establishments with this product class primary:										
24411	Nailed or lock-corner wooden boxes	73	1.9	31.4	1.5	3.0	20.5	61.9	58.3	121.0	1.4
24412	Wooden box and crate shook	108	3.0	53.2	2.4	4.8	36.5	95.5	161.4	254.9	5.0
2448	Wood pallets and skids: All establishments in industry	1 912	28.7	449.4	23.4	44.8	311.0	961.4	1 183.8	2 143.3	52.8
2449	Wood containers, n.e.c.: All establishments in industry	225	5.4	89.4	4.4	8.6	58.6	164.2	178.0	343.3	6.1
2491	Wood preserving: All establishments in industry	486	10.8	232.8	8.3	17.2	150.4	678.5	2 046.7	2 694.8	56.2
	Establishments with this product class primary:										
24912	Wood poles, piles, and posts owned and treated by same establishment	63	2.6	62.7	2.0	4.3	40.0	150.2	389.6	537.4	14.4
24913	Other wood products owned and treated by same establishment	175	6.0	130.1	4.7	9.6	82.8	435.1	1 449.6	1 855.1	34.7
24919	Contract wood preserving	29	.5	10.8	.3	.7	6.8	28.8	46.2	75.1	1.9
2493	Reconstituted wood products: All establishments in industry	288	22.8	614.3	18.5	39.9	458.8	1 930.7	2 029.8	3 980.6	142.8
	Establishments with this product class primary:										
24931	Particleboard, produced at this location	45	6.0	164.7	4.9	10.4	125.5	385.0	557.5	943.7	22.8
24932	Waferboard and oriented strand board	26	3.7	109.1	3.1	7.1	89.2	660.0	442.8	1 111.8	58.2
24933	Medium density fiberboard (MDF) produced at this location	16	2.1	58.0	1.7	3.8	44.4	167.7	214.7	386.8	18.6
24934	Hardboard products made from hardboard produced at this location	20	4.6	132.5	3.8	7.9	99.8	360.5	324.5	689.0	21.5
24935	Cellulosic fiberboard (insulating board)	6	.7	21.2	.6	1.2	15.9	46.9	50.2	98.9	1.5
24936	Hardboard products made from purchased hardboard	27	1.4	30.3	1.1	2.3	18.5	78.7	76.4	153.8	6.1
24937	Prefinished particleboard and medium density fiberboard (MDF) made from purchased particleboard and MDF	63	3.3	74.2	2.5	5.2	48.3	180.2	292.8	473.1	10.4
2499	Wood products, n.e.c.: All establishments in industry	2 754	51.1	889.4	42.3	81.0	607.9	2 007.0	1 726.6	3 716.8	67.7
	Establishments with this product class primary:										
24991	Mirror and picture frames	223	11.1	189.5	9.2	19.2	130.4	470.8	370.3	840.0	9.4
24992	Cork and cork products	16	.4	9.3	.3	.6	5.8	39.3	51.2	89.5	1.9
24994	Miscellaneous wood products	865	28.3	522.4	23.3	45.0	357.0	1 132.7	979.6	2 101.4	44.2

Note: For qualifications of data, see footnotes on table 1a.

Table 5b. Industry-Product Analysis-Value of Industry and Primary Product Shipments; Specialization and Coverage Ratios: 1992 and Earlier Census Years

[Million dollars. An establishment is assigned to an industry based on shipment values of products representing largest amount considered primary to an industry. Frequently, establishment shipments comprise mixtures of products assigned to an industry (primary), those considered primary to other industries (secondary), and receipts for activities such as merchandising or contract work (total miscellaneous receipts). Subtotals for total value of shipments show this product pattern for an industry. Primary products specialization ratio is the primary products value of shipments divided by the sum of primary products value of shipments plus secondary products value of shipments. The extent of which an industry's primary products are shipped by establishments classified both in and out of an industry is the coverage ratio and is calculated by dividing the primary products value of shipments by the value of primary products shipments made in all industries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry	1992	1987	1982
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK			
Total value of shipments	444.0	325.0	306.8
Primary products value of shipments	339.6	274.7	254.1
Secondary products value of shipments	70.2	28.8	29.6
Total miscellaneous receipts	34.2	21.5	23.0
Value of resales	27.1	16.2	15.7
Contract receipts	3.7	1.5	6.2
Other miscellaneous receipts	3.4	3.8	1.1
Sales of scrap and refuse .....	.3	(NA)	.4
Other miscellaneous receipts	2.5	(NA)	.5
Other miscellaneous receipts, n.s.k. ....	.6	(NA)	.2
Primary products specialization ratio	83	91	90
Value of primary products shipments made in all industries	421.1	347.6	314.6
Value of primary products shipments made in this industry	339.6	274.7	254.1
Value of primary products shipments made in other industries	81.5	72.9	60.5
Coverage ratio	81	79	81

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Table 5b. Industry-Product Analysis-Value of Industry and Primary Product Shipments; Specialization and Coverage Ratios: 1992 and Earlier Census Years-Con.

(Million dollars. An establishment is assigned to an industry based on shipment values of products representing largest amount considered primary to an industry. Frequently, establishment shipments comprise mixtures of products assigned to an industry (primary), those considered primary to other industries (secondary), and receipts for activities such as merchandising or contract work (total miscellaneous receipts). Subtotals for total value of shipments show this product pattern for an industry. Primary products specialization ratio is the primary products value of shipments divided by the sum of primary products value of shipments plus secondary products value of shipments. The extent of which an industry's primary products are shipped by establishments classified both in and out of an industry is the coverage ratio and is calculated by dividing the primary products value of shipments by the value of primary products shipments made in all industries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry	1992	1987	1982
INDUSTRY 2448, WOOD PALLETS AND SKIDS			
Total value of shipments	2 143.3	1 496.1	1 012.3
Primary products value of shipments	1 885.9	1 352.8	904.9
Secondary products value of shipments	171.9	99.7	73.9
Total miscellaneous receipts	85.6	43.5	33.5
Value of resales	61.1	26.1	22.0
Contract receipts	8.7	3.9	3.3
Other miscellaneous receipts	15.7	13.5	8.2
Sales of scrap and refuse	4.0	(NA)	2.6
Other miscellaneous receipts	7.8	(NA)	4.0
Other miscellaneous receipts, n.s.k.	3.9	(NA)	1.6
Primary products specialization ratio	92	93	92
Value of primary products shipments made in all industries	2 020.2	1 437.0	969.7
Value of primary products shipments made in this industry	1 885.9	1 352.8	904.9
Value of primary products shipments made in other industries	134.3	84.2	64.8
Coverage ratio	93	94	93
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.			
Total value of shipments	343.3	248.3	315.8
Primary products value of shipments	313.9	210.8	286.4
Secondary products value of shipments	18.0	18.5	15.2
Total miscellaneous receipts	11.4	19.0	14.2
Value of resales	10.1	12.7	3.9
Contract receipts .....	.7	5.1	(D)
Other miscellaneous receipts .....	.6	1.2	(D)
Sales of scrap and refuse .....	.5	(NA)	(D)
Other miscellaneous receipts .....	.2	(NA)	1.0
Other miscellaneous receipts, n.s.k.	-	(NA)	-
Primary products specialization ratio	95	92	95
Value of primary products shipments made in all industries	324.8	218.6	295.6
Value of primary products shipments made in this industry	313.9	210.8	286.4
Value of primary products shipments made in other industries	10.9	7.7	9.2
Coverage ratio	97	96	97
INDUSTRY 2491, WOOD PRESERVING			
Total value of shipments	2 694.8	2 169.6	1 360.2
Primary products value of shipments	2 500.5	2 051.7	1 269.6
Secondary products value of shipments	74.2	69.2	26.7
Total miscellaneous receipts	120.2	48.6	63.9
Value of resales	94.5	27.0	43.2
Contract receipts	18.8	10.9	10.8
Other miscellaneous receipts	6.8	11.0	9.9
Sales of scrap and refuse .....	.5	(NA)	(D)
Other miscellaneous receipts	6.0	(NA)	7.9
Other miscellaneous receipts, n.s.k. ....	.3	(NA)	(D)
Primary products specialization ratio	97	97	98
Value of primary products shipments made in all industries	2 608.5	2 151.9	1 325.0
Value of primary products shipments made in this industry	2 500.5	2 051.7	1 269.6
Value of primary products shipments made in other industries	108.0	100.2	55.4
Coverage ratio	96	95	96
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS			
Total value of shipments	3 980.6	2 864.9	(NA)
Primary products value of shipments	3 898.1	2 763.5	(NA)
Secondary products value of shipments	41.5	42.2	(NA)
Total miscellaneous receipts	41.0	59.2	(NA)
Value of resales	28.7	49.8	(NA)
Contract receipts	(D)	1.6	(NA)
Other miscellaneous receipts	(D)	7.8	(NA)
Sales of scrap and refuse	4.6	(NA)	(NA)
Other miscellaneous receipts	(D)	(NA)	(NA)
Other miscellaneous receipts, n.s.k.	(D)	(NA)	(NA)
Primary products specialization ratio	99	98	(NA)
Value of primary products shipments made in all industries	3 979.6	2 896.4	(NA)
Value of primary products shipments made in this industry	3 898.1	2 763.5	(NA)
Value of primary products shipments made in other industries	81.8	132.8	(NA)
Coverage ratio	98	95	(NA)

Table 5b. Industry-Product Analysis-Value of Industry and Primary Product Shipments; Specialization and Coverage Ratios: 1992 and Earlier Census Years-Con.

(Million dollars. An establishment is assigned to an industry based on shipment values of products representing largest amount considered primary to an industry. Frequently, establishment shipments comprise mixtures of products assigned to an industry (primary), those considered primary to other industries (secondary), and receipts for activities such as merchandising or contract work (total miscellaneous receipts). Subtotals for total value of shipments show this product pattern for an industry. Primary products specialization ratio is the primary products value of shipments divided by the sum of primary products value of shipments plus secondary products value of shipments. The extent of which an industry's primary products are shipped by establishments classified both in and out of an industry is the coverage ratio and is calculated by dividing the primary products value of shipments by the value of primary products shipments made in all industries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry	1992	1987	1982
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.			
Total value of shipments	3 716.8	3 295.5	(NA)
Primary products value of shipments	3 306.5	2 983.3	(NA)
Secondary products value of shipments	181.2	144.5	(NA)
Total miscellaneous receipts	229.1	167.7	(NA)
Value of resales	189.4	124.7	(NA)
Contract receipts	28.6	27.4	(NA)
Other miscellaneous receipts	11.1	15.6	(NA)
Sales of scrap and refuse	5.4	(NA)	(NA)
Other miscellaneous receipts	4.8	(NA)	(NA)
Other miscellaneous receipts, n.s.k.	1.0	(NA)	(NA)
Primary products specialization ratio	95	95	(NA)
Value of primary products shipments made in all industries	3 516.0	3 183.1	(NA)
Value of primary products shipments made in this industry	3 306.5	2 983.3	(NA)
Value of primary products shipments made in other industries	209.5	199.8	(NA)
Coverage ratio	94	94	(NA)

Note: For qualifications of data, see footnotes on table 1a.

Table 6a. Product and Product Classes-Quantity and Value of Shipments by All Producers: 1992 and 1987

[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 further explanation, see Value of Shipments in appendixes. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	1992		1987	
		Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)	Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)
2441-	NAILED WOOD BOXES AND SHOOK				
	Total	(NA)	421.1	(NA)	347.6
24411	Nailed or lock-corner wooden boxes	(NA)	126.6	(NA)	97.6
24411 27	Made from lumber	72	65.8	57	57.8
24411 63	Made from veneer and plywood, and combination wood and fiber boxes, including wood and part wooden cigar boxes	55	55.9	45	38.1
24411 00	Nailed or lock-corner wooden boxes, n.s.k.	(NA)	4.9	(NA)	1.7
24412	Wooden box and crate shook	(NA)	229.5	(NA)	180.8
	Made from lumber:				
24412 11	For fruits and vegetables	35	60.9	25	31.3
24412 15	For industrial and other uses	132	114.1	110	104.6
24412 25	Made from veneer and plywood for fruits, vegetables, meat, industrial, and other uses	26	40.7	33	39.6
24412 00	Wooden box and crate shook, n.s.k.	(NA)	13.8	(NA)	5.2
24410	Nailed wood boxes and shook, n.s.k.	(NA)	65.0	(NA)	69.2
24410 00	Nailed wood boxes and shook, n.s.k. ³	(NA)	54.4	(NA)	55.2
24410 02	Nailed wood boxes and shook, n.s.k. ⁴	(NA)	10.7	(NA)	14.0
2448-	WOOD PALLETS AND SKIDS				
	Total	(NA)	2 020.2	(NA)	1 437.0
24480	Pallets and skids	(NA)	2 020.2	(NA)	1 437.0
24480 82	Pallets, wooden, flat	1 027	1 449.3	640	820.5
24480 64	Pallet containers	64	73.5	49	49.2
24480 65	Skids, wooden	167	105.9	118	69.5
24480 66	Pallets and skids, wood and metal combination	67	92.6	49	59.8
24480 00	Wood pallets and skids, n.s.k. ³	(NA)	213.2	(NA)	334.5
24480 02	Wood pallets and skids, n.s.k. ⁴	(NA)	85.7	(NA)	103.5
2449-	WOOD CONTAINERS, N.E.C.				
	Total	(NA)	324.8	(NA)	218.6
24490	Wood containers, n.e.c.	(NA)	324.8	(NA)	218.6
24490 11	Wirebound boxes made from lumber	12	25.4	12	23.7
	Wirebound boxes made from veneer and plywood:				
24490 21	For fruits and vegetables	14	78.0	14	68.2
24490 43	For industrial and other uses, including meat and poultry	14	21.2	(NA)	19.9
24490 61	Veneer and plywood containers, including pails, drums, tubs, fruit and vegetable baskets, hampers, etc.	22	31.1	14	27.0
24490 73	Slack and tight cooerage (hogsheads, barrels, kags, tubs, etc.) new and reoovered used	19	97.4	(NA)	36.8
24490 00	Wood containers, n.e.c., n.s.k. ³	(NA)	55.5	(NA)	27.4
24490 02	Wood containers, n.e.c., n.s.k. ⁴	(NA)	16.3	(NA)	17.6

See footnotes at end of table.

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MANUFACTURES-INDUSTRY SERIES

Table 6a. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1992 and 1987—Con.

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

Product code	Product	1992			1987		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
2491—	WOOD PRESERVING						
	Total	(NA)	(X)	2 608.5	(NA)	(X)	2 151.9
24912	Wood poles, piles, and posts owned and treated by same establishment.....	(NA)	(X)	540.4	(NA)	(X)	478.2
	Not more than 15 feet in length treated with:						
24912 01	Pentachlorophenol.....	11	(X)	31.3	14	(X)	31.5
24912 03	Arsenical chemicals.....	41	(X)	84.9	33	(X)	67.7
24912 05	Creosote.....	9	(X)	8.5	13	(X)	18.5
24912 07	Other chemicals.....	3	(X)	1.6	4	(X)	2.9
	More than 15 feet in length treated with:						
24912 09	Pentachlorophenol..... thousands.....	25	(S)	169.2	29	(S)	129.9
24912 12	Arsenical chemicals..... thousands.....	35	(S)	70.8	22	(S)	26.4
24912 14	Creosote..... thousands.....	24	(S)	93.5	20	**3	384.9
24912 16	Other chemicals..... thousands.....	8	(S)	32.6	8	**1	205.3
24912 00	Wood poles, piles, and posts owned and treated by same establishment, n.s.k.....	(NA)	(X)	50.0	(NA)	(X)	51.0
24913	Other wood products owned and treated by same establishment.....	(NA)	(X)	1 723.5	(NA)	(X)	1 265.1
24913 02	Railway crossies and mine ties (except switch or bridge)..... thousands.....	17	(S)	168.3	(NA)	*9	187.1
	Lumber, rough and dressed, not edged, treated with:						
24913 05	Fire-retardant, interior and exterior..... mil bd ft.....	18	**77.0	46.6	17	*58.2	27.5
24913 07	Pentachlorophenol..... mil bd ft.....	12	*166.5	63.3	13	(S)	26.2
24913 09	Arsenical chemicals..... mil bd ft.....	92	**2 676.2	1 033.0	79	**2	061.5
24913 12	Other chemicals..... mil bd ft.....	29	(S)	89.5	22	(S)	138.4
24913 14	Wood siding, flooring, other edged lumber..... mil bd ft.....	15	**59.7	24.6	7	*116.2	46.2
24913 17	Switch and bridge ties..... thousands.....	12	(S)	29.2	14	(S)	16.2
24913 21	Other wood treated products, n.e.c., including plywood, wood fence pickets, palling, and rails.....	38	(X)	101.7	(NA)	(X)	60.1
24913 00	Other wood products owned and treated by same establishment, n.s.k.....	(NA)	(X)	167.4	(NA)	(X)	100.0
24919	Contract wood preserving.....	(NA)	(X)	122.6	(NA)	(X)	105.5
	Contract wood treating service (receipts for treating wood owned by others):						
24919 05	Arsenical chemicals.....	61	(X)	45.5	48	(X)	35.0
24919 07	Creosote.....	12	(X)	42.1	14	(X)	43.3
24919 11	Other chemicals, including fire-retardant and pentachlorophenol.....	21	(X)	27.3	(NA)	(X)	18.5
24919 00	Contract wood preserving, n.s.k.....	(NA)	(X)	7.7	(NA)	(X)	8.7
24910	Wood preserving, n.s.k.....	(NA)	(X)	221.9	(NA)	(X)	303.0
24910 00	Wood preserving, n.s.k. ³	(NA)	(X)	179.2	(NA)	(X)	225.5
24910 02	Wood preserving, n.s.k. ⁴	(NA)	(X)	42.8	(NA)	(X)	77.6
2493—	RECONSTITUTED WOOD PRODUCTS						
	Total	(NA)	(X)	3 979.6	(NA)	(X)	2 896.4
24931	Particleboard, produced at this location.....	(NA)	(X)	950.0	(NA)	(X)	849.1
24931 03	Floor underlayment..... mil sq ft (3/4 in. basis).....	8	339.2	60.4	9	694.8	129.2
24931 05	Mobile home decking..... mil sq ft (3/4 in. basis).....	3	(*)	(*)	3	(D)	(D)
24931 20	Industrial board (furniture, fixtures, cabinets, toys, games, electronic cabinets, etc.)..... mil sq ft (3/4 in. basis).....	19	2 823.7	664.4	(NA)	2 315.8	527.3
24931 21	Other, including stepping, siding, shelving, and door core, etc..... mil sq ft (3/4 in. basis).....	10	*709.1	*173.2	(NA)	(D)	(D)
24931 00	Particleboard, produced at this location, n.s.k.....	(NA)	(X)	52.1	(NA)	(X)	36.6
24932	Waferboard and oriented strand board.....	(NA)	(X)	1 131.6	(NA)	(X)	513.3
24932 05	Sheathing panels..... mil sq ft (3/8 in. basis).....	9	4 183.4	700.8			
24932 07	Underlayment panels..... mil sq ft (3/8 in. basis).....	7	*579.5	109.9			
24932 09	Panels with surface treatment (overlays, filled, and sanded)..... mil sq ft (3/8 in. basis).....	3	(D)	(D)	12	3 997.9	513.3
24932 21	Other panels, n.e.c..... mil sq ft (3/8 in. basis).....	4	(D)	(D)			
24932 00	Waferboard and oriented strand board, n.s.k.....	(NA)	(X)	—			
24933	Medium density fiberboard (MDF) produced at this location.....	(NA)	(X)	383.4	(NA)	(X)	282.1
24933 14	Standard panel, not coated or prefinished..... mil sq ft (3/4 in. basis).....	7	715.3	234.2	12	741.1	233.8
24933 16	All other, including cut to size, prefinished..... mil sq ft (3/4 in. basis).....	9	403.0	141.9	(NA)	119.3	48.3
24933 00	Medium density fiberboard (MDF) produced at this location, n.s.k.....	(NA)	(X)	7.4	(NA)	(X)	—

See footnotes at end of table.

Table 6a. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1992 and 1987—Con.

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

Product code	Product	1992			1987		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
2493—	RECONSTITUTED WOOD PRODUCTS—Con.						
24934	Hardboard products made from hardboard produced at this location	(NA)	(X)	682.1	(NA)	(X)	573.7
	Basic hardboard (not machined or coated):						
24934 12	Standard						
24934 14	Service, tempered, and other basic hardboard	5	1 267.8	116.9			
24934 16	Machined and cut hardboard, including molded, cut to size, perforated, panel stock, etc., not coated	3	(D)	(D)			
24934 17	Interior paneling	3	(D)	(D)			
24934 18	Exterior siding	4	**176.8	25.6	12	(X)	573.7
24934 19	Other, including doorskins, garage door panels, and furniture stock	5	(S)	301.7			
24934 00	Hardboard products made from hardboard produced at this location, n.s.k.	3	(D)	(D)			
24935	Cellulosic fiberboard (insulating board)	(NA)	(X)	104.3	(NA)	(X)	205.4
24935 00	Cellulosic fiberboard (insulating board)	5	1 097.4	104.3	10	(NA)	205.4
24936	Hardboard products made from purchased hardboard	(NA)	(X)	174.1	(NA)	(X)	206.4
24936 12	Machined and cut hardboard, including molded, cut to size, perforated, panel stock, etc., not coated	8	(S)	22.7	(NA)	(NA)	52.4
	Coated or laminated hardboard:						
24936 16	Interior paneling	6	100.4	46.4	8	(S)	43.7
24936 17	Other, including doorskins, garage door panels, furniture stock, and siding	21	(S)	61.6	16	(S)	46.2
24936 00	Hardboard products made from purchased hardboard, n.s.k.	(NA)	(X)	43.4	(NA)	(X)	64.3
24937	Prefinished particleboard and medium density fiberboard (MDF) made from purchased particleboard and MDF	(NA)	(X)	434.6	(NA)	(X)	216.1
24937 21	Prefinished particleboard made from purchased particleboard	53	**719.6	313.7	51	**719.6	158.1
24937 31	Prefinished or coated medium density fiberboard (MDF) made from purchased MDF	30	(S)	71.9	23	*112.4	33.6
24937 00	Prefinished particleboard and medium density fiberboard (MDF) made from purchased particleboard and MDF, n.s.k.	(NA)	(X)	49.0	(NA)	(X)	24.4
24930	Reconstituted wood products, n.s.k.	(NA)	(X)	119.5	(NA)	(X)	50.1
24930 00	Reconstituted wood products, n.s.k. ⁶	(NA)	(X)	101.6	(NA)	(X)	45.5
24930 02	Reconstituted wood products, n.s.k. ⁷	(NA)	(X)	17.9	(NA)	(X)	4.6

Product code	Product	1992		1987	
		Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)	Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)
2499—	WOOD PRODUCTS, N.E.C.				
	Total	(NA)	3 516.0	(NA)	3 183.1
24991	Mirror and picture frames	(NA)	814.5	(NA)	605.1
	Frames for mirrors and pictures:				
24991 11	Wood	123	293.2	110	237.5
24991 15	Metal	29	119.6	35	107.5
	Finished moldings for mirrors and pictures:				
24991 31	Wood	48	54.0	36	59.8
24991 41	Metal	13	21.7	10	13.7
	Framed pictures:				
24991 61	Wood	60	200.9	48	92.3
24991 71	Other than wood (metal, plastics, fiber)	28	59.1	28	48.2
24991 00	Mirror and picture frames, n.s.k.	(NA)	66.1	(NA)	46.3
24992	Cork and cork products	(NA)	68.4	(NA)	43.3
24992 00	Cork and cork products, including natural and waste and articles made of natural, granulated, and composition cork	28	68.4	16	43.3
24994	Miscellaneous wood products	(NA)	2 001.5	(NA)	1 423.8
24994 11	Jewelry boxes; silverware chests; instrument cases; cigar and cigarette boxes; microscope, tool, or utensil cases; etc.	44	42.9	29	24.9
24994 14	Wood statuettes and other ornaments, including ashtrays, bookends, etc.	44	55.8	39	49.6
24994 16	Wood tableware and kitchenware	35	50.0	29	42.8
24994 17	Wood fences, palings, and rails assembled into fence sections	40	50.6	38	44.5
24994 19	Toothpicks, skewers, candy sticks, ice cream sticks, tongue depressors, drink mixers, and similar small wares	12	59.3	10	57.8

See footnotes at end of table.

24C-20 WOODEN CONTAINERS & MISC. WOOD PRODS.

MANUFACTURES—INDUSTRY SERIES

Table 6a. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1992 and 1987—Con.

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

Product code	Product	1992		1987	
		Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)	Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)
2499—	WOOD PRODUCTS, N.E.C.—Con.				
24994	Miscellaneous wood products—Con.				
24994 23	Firewood and fuel wood containing an added binder, including compressed logs	29	72.4	10	52.2
24994 25	Bamboo, rattan, willow and chip, basketwork, wickerwork, and related products of fibrous vegetable substances	17	43.2	12	48.5
24994 41	Lasts for boots and shoes, wood and other materials; remodeled last sole patterns and forms; shoe trees; and stretchers	5	11.9	7	19.7
	Handtool handles:				
24994 51	Striking tool handles (axe, pick, hammer, etc.)	15	25.1	17	33.0
24994 54	Other handtool handles, including spade, shovel, rake, scythe, and other mechanics, farm, garden, household, etc.	20	30.7	20	25.9
24994 57	Broom, mop, and paintbrush handles	13	24.3	16	30.4
24994 58	Other handles: wooden tools, tool bodies, and backs for brooms, mops, and brushes	16	17.8	12	18.6
24994 62	Dowels and dowel pins (plain or sanded, grooved, or otherwise advanced in condition)	30	51.4	29	53.2
24994 71	Stepladders	14	55.0	20	49.0
24994 75	Rung ladders (nonextension, extension, and scaffolding ladders)	18	13.8	17	32.5
24994 85	Wooden reels for wire and cable	36	163.1	34	119.0
24994 89	Wood flour	8	25.7	9	21.7
24994 91	Other fabricated industrial parts, except hardwood furniture parts	37	50.7	29	26.4
24994 97	Wood toilet seats, including molded wood	7	101.0	6	(⁶)
24994 98	Miscellaneous wooden products, n.e.c., including articles of wood, n.e.c., and wood turnings (except handles)	562	1 010.9	(NA)	⁵ 587.8
24994 00	Miscellaneous wood products, n.s.k.	(NA)	46.1	(NA)	86.3
24990	Wood products, n.e.c., n.s.k.	(NA)	631.6	(NA)	1 111.0
24990 00	Wood products, n.e.c., n.s.k. ³	(NA)	486.1	(NA)	887.4
24990 02	Wood products, n.e.c., n.s.k. ⁴	(NA)	145.5	(NA)	223.6

¹Data reported by all producers, not just those with shipments of \$100,000 or more.

²For 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: *10 to 19 percent estimated; **20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

³Typically for establishments with 5 employees or more.

⁴Typically for establishments with less than 5 employees.

⁵For 1982, data for codes 24931 05 and 24931 21 are combined to avoid disclosing data for individual companies.

⁶Typically for establishments with 20 employees or more.

⁷Typically for establishments with less than 20 employees.

⁸For 1987, data for product codes 24994 97 and 24994 98 were combined to avoid disclosing data for individual companies.

Table 6b. Product Classes—Value of Shipments by All Producers for Specified States: 1992 and 1987

(Million dollars. Product classes shown are those where the data are geographically dispersed, provided dispersion is not approximated by data in table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some States are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1992. For meaning of abbreviations and symbols, see introductory text]

Product class and geographic area	1992 value of product shipments	1987 value of product shipments	Product class and geographic area	1992 value of product shipments	1987 value of product shipments
24411, NAILED OR LOCK-CORNER WOODEN BOXES			24412, WOODEN BOX AND CRATE SHOOK—Con.		
United States	126.6	97.8	Michigan	10.3	11.9
Alabama	2.7	(NA)	New York	8.8	3.1
California	40.0	30.9	North Carolina	9.1	6.6
Illinois	2.0	3.5	Ohio	6.6	3.8
Massachusetts	6.1	(NA)	Oklahoma	5.6	(NA)
Michigan	8.5	(NA)	Oregon	8.6	9.0
New Jersey	2.1	(NA)	Pennsylvania	14.2	8.2
New York	5.4	(NA)	South Carolina	3.0	(NA)
Ohio	6.0	5.0	Tennessee	2.2	5.0
Pennsylvania	2.6	2.7	Texas	9.2	8.8
Tennessee	7.0	(NA)	Washington	15.4	12.0
Texas	4.7	7.4	Wisconsin	7.7	9.1
24412, WOODEN BOX AND CRATE SHOOK			24912, WOOD POLES, PILES, AND POSTS OWNED AND TREATED BY SAME ESTABLISHMENT		
United States	229.5	180.8	United States	540.4	478.2
Alabama	2.2	(NA)	Alabama	113.4	71.1
California	82.2	61.3	California	19.9	23.4
Georgia	4.3	(NA)	Florida	15.7	13.9
Illinois	6.4	(NA)	Georgia	48.9	55.3
Massachusetts	2.0	(NA)			

See footnotes at end of table.

Table 6b. Product Classes—Value of Shipments by All Producers for Specified States: 1992 and 1987—Con.

(Million dollars. Product classes shown are those where the data are geographically dispersed, provided dispersion is not approximated by data in table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some States are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1992. For meaning of abbreviations and symbols, see introductory text.)

Product class and geographic area	1992 value of product shipments	1987 value of product shipments	Product class and geographic area	1992 value of product shipments	1987 value of product shipments
24912, WOOD POLES, PILES, AND POSTS OWNED AND TREATED BY SAME ESTABLISHMENT—Con.			24934, HARDBOARD PRODUCTS MADE FROM HARDBOARD PRODUCED AT THIS LOCATION		
Idaho	17.1	7.9	United States	682.1	573.7
Mississippi	39.5	58.7	Oregon	81.3	60.9
Montana	4.4	(NA)	24935, CELLULOSIC FIBERBOARD (INSULATING BOARD)		
North Carolina	35.8	34.4	United States	104.3	205.4
Oregon	21.6	19.6	24936, HARDBOARD PRODUCTS MADE FROM PURCHASED HARDBOARD		
South Carolina	28.7	(NA)	United States	174.1	208.4
Texas	18.3	18.0	Illinois	23.8	14.0
Virginia	14.6	29.8	Indiana	10.5	9.2
Washington	41.3	16.9	North Carolina	21.3	20.2
Wisconsin	17.1	4.3	24937, PREFINISHED PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD (MDF) MADE FROM PURCHASED PARTICLEBOARD AND MDF		
24913, OTHER WOOD PRODUCTS OWNED AND TREATED BY SAME ESTABLISHMENT			United States	434.6	216.1
United States	1 723.5	1 285.1	Alabama	7.4	(NA)
Alabama	150.1	117.0	California	39.0	50.6
Arkansas	82.6	32.1	Illinois	25.3	(NA)
California	16.0	33.8	Indiana	18.2	3.5
Colorado	7.5	7.4	Michigan	10.3	2.9
Florida	62.0	32.5	New York	5.0	(NA)
Georgia	90.6	85.8	North Carolina	63.0	45.1
Illinois	43.9	25.9	Oregon	52.1	26.3
Indiana	27.5	31.5	Texas	19.2	(NA)
Kentucky	24.0	(NA)	24991, MIRROR AND PICTURE FRAMES		
Louisiana	20.9	14.6	United States	814.5	805.1
Maryland	56.4	(NA)	California	162.5	100.5
Massachusetts	42.7	(NA)	Florida	32.1	(NA)
Michigan	15.1	(NA)	Georgia	7.3	40.9
Mississippi	50.4	(NA)	Illinois	70.9	56.9
Missouri	30.8	(NA)	Indiana	4.6	3.5
New Jersey	8.8	(NA)	Maryland	11.1	13.1
North Carolina	119.6	154.5	Massachusetts	38.1	20.5
Ohio	37.1	13.3	Michigan	11.0	9.8
Oregon	19.6	15.4	Minnesota	9.5	(NA)
Pennsylvania	95.9	65.8	Missouri	5.9	4.5
South Carolina	148.2	123.6	New Jersey	7.4	18.1
Tennessee	32.6	38.5	New York	50.6	29.6
Texas	66.0	33.8	Pennsylvania	4.9	10.9
Virginia	202.7	185.0	South Carolina	14.0	(NA)
Washington	109.1	56.3	Texas	59.9	90.3
West Virginia	56.5	23.8	Virginia	18.5	26.9
Wisconsin	47.8	30.8	24992, CORK AND CORK PRODUCTS		
24919, CONTRACT WOOD PRESERVING			United States	68.4	43.3
United States	122.8	105.5	California	26.6	8.0
California	9.0	12.9	24994, MISCELLANEOUS WOOD PRODUCTS		
Georgia	2.6	(NA)	United States	2 001.5	1 423.8
Illinois	6.1	(NA)	Alabama	49.9	36.9
Louisiana	2.1	(NA)	Arizona	12.2	6.4
Michigan	2.3	(NA)	Arkansas	32.2	16.7
Mississippi	3.5	(NA)	California	240.7	185.4
Ohio	2.4	(NA)	Colorado	2.5	(NA)
Oregon	13.5	6.9	Connecticut	17.9	15.8
Texas	9.3	9.2	Florida	55.7	27.0
Virginia	9.6	4.8	Georgia	27.0	24.5
Washington	11.2	9.2	Idaho	4.2	(NA)
24931, PARTICLEBOARD, PRODUCED AT THIS LOCATION			Illinois	51.6	34.1
United States	950.0	849.1	Indiana	57.7	41.1
California	49.7	56.2	Iowa	26.0	36.4
Georgia	68.4	87.4	Kansas	2.7	(NA)
North Carolina	34.9	(NA)	Kentucky	29.7	23.4
Oregon	285.7	253.2	Louisiana	8.9	7.7
Virginia	78.8	78.5	Maine	150.9	122.9
24932, WAFERBOARD AND ORIENTED STRAND BOARD			Maryland	14.9	(NA)
United States	1 131.6	513.3	Massachusetts	24.2	21.8
Maine	101.4	56.7	Michigan	64.6	47.4
Minnesota	275.5	156.0	Minnesota	34.7	18.7
24933, MEDIUM DENSITY FIBERBOARD (MDF) PRODUCED AT THIS LOCATION			Mississippi	69.0	59.2
United States	383.4	282.1	Missouri	53.3	35.9
North Carolina	55.9	(NA)	Montana	5.1	(NA)
South Carolina	70.7	(NA)	Nebraska	3.6	3.1
			New Hampshire	32.8	34.5

See footnotes at end of table.

24C-22 WOODEN CONTAINERS & MISC. WOOD PRODS.

MANUFACTURES—INDUSTRY SERIES

Table 6b. Product Classes—Value of Shipments by All Producers for Specified States: 1992 and 1987—Con.

[Million dollars. Product classes shown are those where the data are geographically dispersed, provided dispersion is not approximated by data in table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some States are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1992. For meaning of abbreviations and symbols, see introductory text.]

Product class and geographic area	1992 value of product shipments	1987 value of product shipments	Product class and geographic area	1992 value of product shipments	1987 value of product shipments
24994, MISCELLANEOUS WOOD PRODUCTS—Con.			24994, MISCELLANEOUS WOOD PRODUCTS—Con.		
New Jersey.....	21.9	14.1	South Carolina.....	9.4	11.9
New Mexico.....	3.5	(NA)	Tennessee.....	52.8	33.1
New York.....	99.9	70.7	Texas.....	53.2	70.9
North Carolina.....	78.6	73.0	Utah.....	5.2	(NA)
Ohio.....	269.7	94.2	Vermont.....	46.4	33.8
Oklahoma.....	4.4	(NA)	Virginia.....	32.8	20.9
Oregon.....	34.1	16.3	Washington.....	49.0	50.5
Pennsylvania.....	42.5	55.5	West Virginia.....	10.7	2.5
Rhode Island.....	6.1	2.8	Wisconsin.....	105.6	35.9

Note: For qualifications of data, see footnotes on table 6a.

Table 6c. Historical Statistics for Product Classes—Value Shipped by All Producers: 1992 and Earlier Years

[Million dollars. For meaning of abbreviations and symbols, see introductory text.]

Product code	Product class	1992	1991 ¹	1990 ¹	1989 ¹	1988 ¹	1987	1982	1977
2441-	Nailed wood boxes and shook	421.1	482.9	454.3	399.8	398.3	347.6	314.8	265.3
24411	Nailed or lock-corner wooden boxes.....	126.6	126.7	116.1	111.4	137.5	97.6	109.0	93.8
24412	Wooden box and crate shook.....	229.5	276.0	252.7	219.7	192.2	180.8	156.2	127.0
24410	Nailed wood boxes and shook, n.s.k.....	65.0	80.2	85.5	68.6	68.6	69.2	49.4	44.5
2448-	Wood pallets and skids	2 020.2	1 802.9	1 845.0	1 748.4	1 502.3	1 437.0	969.7	642.9
24480	Pallets and skids.....	2 020.2	1 802.9	1 845.0	1 748.4	1 502.3	1 437.0	969.7	642.9
2449-	Wood containers, n.e.c.	324.8	344.2	385.6	307.2	220.1	218.6	295.6	235.3
24490	Wood containers, n.e.c.....	324.8	344.2	385.6	307.2	220.1	218.6	295.6	235.3
2491-	Wood preserving	2 608.5	2 534.2	2 525.5	2 360.1	2 248.4	2 151.9	1 325.0	692.2
24912	Wood poles, piles, and posts owned and treated by same establishment.....	540.4	519.9	509.7	446.5	452.4	478.2	461.1	305.5
24913	Other wood products owned and treated by same establishment.....	1 723.5	1 641.8	1 618.4	1 505.7	1 379.8	1 265.1	617.4	418.2
24919	Contract wood preserving.....	122.6	121.2	117.3	109.0	106.0	105.5	94.9	68.6
24910	Wood preserving, n.s.k.....	221.9	251.3	282.2	298.9	310.2	303.0	151.6	99.8
2493-	Reconstituted wood products	3 979.6	3 045.7	3 049.7	3 239.6	2 995.8	2 896.4	(NA)	(NA)
24931	Particleboard, produced at this location.....	950.0	798.3	821.8	886.4	856.6	849.1	567.3	476.5
24932	Waferboard and oriented strand board.....	1 131.6	720.0	681.6	766.0	547.9	513.3	144.7	284.2
24933	Medium density fiberboard (MDF) produced at this location.....	383.4	315.5	294.5	295.2	277.4	282.1		
24934	Hardboard products made from hardboard produced at this location.....	682.1	566.6	571.6	586.2	586.3	573.7	558.3	508.0
24935	Cellulosic fiberboard (insulating board).....	104.3	149.3	166.5	176.2	187.2	205.4	188.9	222.2
24936	Hardboard products made from purchased hardboard.....	174.1	256.5	261.3	254.7	241.8	206.4	148.1	171.3
24937	Prefinished particleboard and medium density fiberboard (MDF) made from purchased particleboard and MDF.....	434.6	166.3	186.0	210.9	226.3	216.1	110.3	284.9
24930	Reconstituted wood products, n.s.k.....	119.5	73.3	66.4	64.0	72.3	50.1	(NA)	(NA)
2499-	Wood products, n.e.c.	3 516.0	3 777.8	3 850.7	3 581.4	3 201.7	3 183.1	2 304.8	1 602.1
24991	Mirror and picture frames.....	814.5	895.8	865.5	827.0	609.1	605.1	505.5	314.6
24992	Cork and cork products.....	68.4	71.1	78.5	73.1	63.0	43.3	40.9	32.8
24994	Miscellaneous wood products.....	2 001.5	1 752.6	1 777.1	1 651.6	1 436.1	1 423.8	1 164.8	882.7
24990	Wood products, n.e.c., n.s.k.....	631.6	1 058.3	1 129.5	1 029.7	1 093.4	1 111.0	359.6	237.0

¹Figures are estimates derived from a representative sample of manufacturing establishments. Standard errors associated with estimates are published in annual survey of manufactures publications for this period.

²For 1977, prefinished medium density fiberboard (MDF) was included with product class 24933.

³Data prior to 1987 is not completely comparable with data since 1987 because of 1987 SIC revisions to industry 2499.

Table 7. Materials Consumed by Kind: 1992 and 1987

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

Material code	Material	1992		1987	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
INDUSTRY 2441, NAILED WOOD BOXES AND SHOOK					
	Materials, ingredients, containers, and supplies	(X)	220.2	(X)	158.5
241113	Logs, bolts, and unsliced fitches .....mil ft log scale..	** 18.4	3.9	32.5	6.5
242110	Rough lumber:				
242121	Hardwood	(X)	7.3	(X)	9.5
	Softwood	(S)	11.8	(S)	15.0
242117	Dressed lumber:				
242128	Hardwood	(S)	9.0	(S)	3.4
243001	Softwood	*205.4	64.7	**116.0	27.8
970099	Veneer and plywood	(X)	28.6	(X)	3.9
	All other materials and components, parts, containers, and supplies	(X)	42.7	(X)	38.4
971000	Materials, ingredients, containers, and supplies, n.s.k. ²	(X)	52.3	(X)	54.0
INDUSTRY 2448, WOOD PALLETS AND SKIDS					
	Materials, ingredients, containers, and supplies	(X)	1 080.6	(X)	811.0
241113	Logs, bolts, and unsliced fitches .....mil ft log scale..	(S)	71.8	(S)	66.5
242110	Rough lumber:				
242121	Hardwood	(X)	277.5	(X)	166.2
	Softwood	(S)	66.4	**247.3	35.9
242117	Dressed lumber:				
242128	Hardwood	**275.1	60.2	*78.0	14.5
243001	Softwood	*531.1	103.6	**301.6	49.5
970099	Veneer and plywood	(X)	13.0	(X)	13.8
	All other materials and components, parts, containers, and supplies	(X)	90.3	(X)	59.1
971000	Materials, ingredients, containers, and supplies, n.s.k. ²	(X)	397.8	(X)	405.5
INDUSTRY 2449, WOOD CONTAINERS, N.E.C.					
	Materials, ingredients, containers, and supplies	(X)	160.7	(X)	118.6
241113	Logs, bolts, and unsliced fitches .....mil ft log scale..	(S)	14.6	*35.1	6.2
242110	Rough lumber:				
242121	Hardwood	(X)	39.1	(X)	22.0
	Softwood	(S)	1.7	(D)	(D)
242117	Dressed lumber:				
242128	Hardwood	(S)	3.1	(D)	(D)
243001	Softwood	(S)	4.7	*13.6	3.1
970099	Veneer and plywood	(X)	24.3	(X)	(D)
	All other materials and components, parts, containers, and supplies	(X)	33.4	(X)	30.7
971000	Materials, ingredients, containers, and supplies, n.s.k. ²	(X)	39.7	(X)	30.6
INDUSTRY 2491, WOOD PRESERVING					
	Materials, ingredients, containers, and supplies	(X)	1 913.0	(X)	1 548.1
241109	Treated in same establishment:				
	Poles, piling, and other round or hewn wood products	(X)	216.3	(X)	222.8
	Rough lumber, including sawn ties:				
242110	Hardwood	(S)	132.3	(S)	124.1
242121	Softwood	(S)	360.8	*1 868.0	538.8
242103	Dressed lumber	*1 704.1	540.9	(NA)	(³)
286551	Consumed in same establishment:				
286915	Creosote oil	**46.7	38.3	*53.5	45.0
281902	Pentachlorophenol	(S)	24.0	**26.2	27.7
280015	Water-born salts	(S)	78.0	86.0	62.6
970099	Flame retardants	(X)	6.8	(X)	11.4
	All other materials and components, parts, containers, and supplies	(X)	196.3	(X)	³ 217.3
971000	Materials, ingredients, containers, and supplies, n.s.k. ²	(X)	319.4	(X)	298.4

See footnotes at end of table.

24C-24 WOODEN CONTAINERS & MISC. WOOD PRODS.

MANUFACTURES—INDUSTRY SERIES

Table 7. Materials Consumed by Kind: 1992 and 1987—Con.

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

Material code	Material	1992		1987	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
INDUSTRY 2493, RECONSTITUTED WOOD PRODUCTS					
	Materials, ingredients, containers, and supplies	(X)	1 727.8	(X)	1 210.7
241113	Logs, bolts, and unsliced flitches .....mil ft log scale..	(D)	(D)	*555.7	46.7
241131	Pulpwood .....1,000 standard cords..	(D)	(D)	**2 602.0	120.0
242016	Chips, slabs, edgings, sawdust, and other wood waste, except planer shavings .....1,000 s tons..	5 767.8	174.5	(S)	85.6
242017	Planer shavings.....1,000 s tons..	4 376.2	139.7	3 889.0	92.0
249340	Hardboard (wood fiberboard).....mil sq ft (1/8 in. basis)..	(S)	37.8	(S)	58.1
249330	Medium density fiberboard (MDF).....mil sq ft (3/4 in. basis)..	*93.3	30.1	(S)	26.8
249310	Particleboard (wood).....mil sq ft (3/4 in. basis)..	*477.1	106.1	(S)	44.0
285101	Paints, varnishes, lacquers, stains, shellacs, japans, enamels, and allied products.....1,000 gallons..	**7 496.9	62.2	*5 263.1	39.0
289110	Urethane adhesives.....mil lb (dry basis)..	(D)	(*)	(NA)	(*)
282141	Urea and melamine resins.....mil lb (dry basis)..	*1 617.2	184.5	1 344.9	125.9
282142	Phenolic and other tar acid resins.....mil lb (dry basis)..	**462.2	114.2	(S)	75.4
291106	Petroleum wax.....mil lb (dry basis)..	*266.1	44.7	(NA)	(*)
190054	Vinyl and paper overlays.....mil sq ft sm..	*1 688.8	86.8	(NA)	(*)
308311	Plastics laminates.....	(X)	6.2	(X)	(*)
282108	All other plastics resins consumed in the form of granules, pellets, powders, liquids, etc.....	(X)	27.7	(X)	18.3
970099	All other materials and components, parts, containers, and supplies.....	(X)	*377.6	(X)	³ 363.8
971000	Materials, ingredients, containers, and supplies, n.s.k. ²	(X)	93.3	(X)	115.1
INDUSTRY 2499, WOOD PRODUCTS, N.E.C.					
	Materials, ingredients, containers, and supplies	(X)	1 533.1	(X)	1 388.7
Logs, bolts, and unsliced flitches:					
241111	Hardwood.....mil ft log scale..	(S)	54.8	*130.8	26.7
241112	Softwood.....mil ft log scale..	(S)	10.5	(S)	9.1
Rough lumber:					
242110	Hardwood.....mil bd ft..	(S)	101.9	**162.5	70.0
242121	Softwood.....mil bd ft..	*120.4	58.4	*197.8	73.3
Dressed lumber:					
242117	Hardwood.....mil bd ft..	(S)	45.3	91.4	34.8
242128	Softwood.....mil bd ft..	(S)	91.1	266.1	70.6
242011	Chips, slabs, edgings, shavings, sawdust, and other wood waste.....1,000 s tons..	(S)	22.9	(S)	9.3
242620	Hardwood dimension and parts, excluding furniture frames.....mil bd ft..	(S)	21.1	(S)	16.2
Plywood:					
243510	Hardwood.....mil sq ft sm..	**45.7	19.4	33.0	15.9
243601	Softwood.....mil sq ft (3/8 in. basis)..	(S)	27.4	48.9	13.0
249300	Reconstituted wood products including particleboard, oriented strandboard, medium density fiberboard, and hardboard.....	(X)	21.9	(X)	34.7
285101	Paints, varnishes, lacquers, stains, shellacs, japans, enamels, and allied products.....1,000 gallons..	(S)	20.6	*1 760.1	16.7
321105	Glass (float, sheet, and plate).....	(X)	21.2	(X)	(*)
340004	Fabricated metal products, including forgings.....	(X)	29.7	(X)	(*)
265001	Paperboard containers, boxes, and corrugated paperboard.....	(X)	37.6	(X)	(*)
970099	All other materials and components, parts, containers, and supplies.....	(X)	397.3	(X)	³ 308.9
971000	Materials, ingredients, containers, and supplies, n.s.k. ²	(X)	551.8	(X)	689.7

¹For 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: *10 to 19 percent estimated; **20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

²Total cost of materials of establishments that did not report detailed materials data, including establishments that were not mailed a form.

³For 1987, these materials were included with material code 970099.

⁴For 1992, this material is included with material code 970099.

Appendix A. Explanation of Terms

This appendix is in two sections. Section 1 includes items requested of all establishments mailed census of manufactures forms including annual survey of manufactures (ASM) forms. Note that this section also includes several items (number of establishments and companies, value added, classes of products, and specialization and coverage ratios) not included on the report forms but derived from information collected on the forms. Section 2 covers supplementary items requested only from establishments included in the ASM sample. Results of the supplementary ASM inquiries are included in table 3c of this report.

SECTION 1. ITEMS COLLECTED OR DERIVED BASED ON ALL CENSUS OF MANUFACTURES (INCLUDING ASM) REPORT FORMS

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.

In this report, data are shown for establishments in operation at any time during the year. A comparison with the number of establishments in operation at the end of the year will be provided in the Introduction of the *General Summary* subject report.

Employment and related items. The report forms requested separate information on production workers for a specific payroll period within each quarter of the year and on other employees as of the payroll period which included the 12th of March.

All 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 truckdrivers and their helpers), advertising, credit, collection, installation and servicing of own products, clerical and routine office function, 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 to the plant and utilized as a separate work force.

In addition to reports sent to operating manufacturing establishments, information on employment during the payroll period which included March 12 and annual payrolls also was requested of auxiliary units (e.g., administrative offices, warehouses, and research and development

laboratories) of multiestablishment companies. However, these figures are not included in the totals for individual industries shown in this report. They are included in the *General Summary* and geographic area reports as a separate category.

Payroll. This item includes the gross earnings of all employees on the payrolls of operating manufacturing establishments paid in the calendar year 1992. 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' supplemental labor costs, both those required by Federal and State laws and those incurred voluntarily or as part of collective bargaining agreements. (Supplemental labor costs are explained later in this appendix.)

As in the case of employment figures, the payrolls of separate auxiliary units of multiestablishment companies are not included in the totals for individual industries or industry groups.

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.

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.

The important components of this cost item are (1) 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) electric energy purchased, (3) fuels consumed for heat, power, or the generation of electricity, (4) work done by

others on materials or parts furnished by manufacturing establishments (contract work), and (5) products bought and resold in the same condition. (See discussion of duplication of data below.)

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. Information on the establishments consuming less than a specified amount (usually \$25,000) of a specific material were not requested to report consumption of that material separately. Also, the cost of materials for the small establishments for which either administrative records or short forms were used was imputed as "not specified by kind." (See Census of Manufactures for the importance of administrative records in the industry.)

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 resold without further processing. Included are all items made by or for the establishments from materials 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. (See discussion of duplication of data below.)

Individual products. As in previous censuses, data were collected for most industries on the quantity and value of individual products shipped. In the 1992 census program, information was collected on the output of almost 11,000 individual product items. The term "product," as used in the census of manufactures, represents the finest level of detail for which output information was requested. Consequently, it is not necessarily synonymous with the term "product" as used in the marketing sense. In some cases, it may be much more detailed and, in other cases, it is more aggregative. For example, "pharmaceutical preparations" was distributed into over 100 terms; whereas, "motor gasoline" was reported as a single item.

Approximately 6,300 of the product items were listed separately on the 1992 census report forms. Data for

about 4,500 products were obtained in the monthly, quarterly, or annual surveys comprising the Current Industrial Reports series of the Census Bureau. Totals for the year 1992 for these items, as derived from the commodity surveys, are shown in the "products shipped" table.

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 1987 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 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.

Classes of products. To summarize the product information, the separate products were aggregated into classes of products that, in turn, were grouped into all primary products of each industry. The code structure used is a seven-digit number for the individual product, a five-digit number for the class of product, and a four-digit number for the total primary products in an industry. (See Census of Manufactures, Industry Classification of Establishments, for application of the coding structure to the assignment of SIC codes for establishments.)

In the 1992 census, the 11,000 products were grouped into approximately 1,500 separate classes on the basis of general similarity of manufacturing processes, types of materials used, etc. However, the grouping of products was affected by the economic significance of the class and, in some cases, dissimilar products were grouped because the products were not sufficiently significant to warrant separate classes.

Duplication in cost of materials and value of shipments. 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.

Value added by manufacture. 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 (see footnote in table 1a), 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.

New and used capital expenditures. For establishments in operation and any known plants under construction, manufacturers were asked to report their new 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.

The totals for new expenditures include expenditures 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 used plant and equipment (although reported in the census), expenditures for land, and cost of maintenance and repairs charged as current operating expenses.

Manufacturers also were requested to report the value of all used buildings and equipment purchased during the year at the purchase price. 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. Furthermore, if the establishment changed ownership during the year, the cost of the fixed assets (building and equipment) was to be reported under used capital expenditures.

Total expenditures for used plant and equipment is a universe figure; it is collected on all census forms. However, the breakdown of this figure between expenditures for used buildings and other structures and expenditures for used machinery and equipment is collected only on the ASM form. The data for total new capital expenditures, new building expenditures, and new machinery expenditures, as well as the data for total used expenditures, are shown in table 3b.

End-of-year inventories. Respondents were asked to report their 1991 and 1992 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). 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.

SECTION 2. ITEMS COLLECTED ONLY ON ASM REPORT FORMS

The following items were collected only from establishments included in the ASM sample:

Supplemental labor costs. Supplemental labor costs 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

Because of this change in reporting instructions, the 1982 through 1992 data for inventories and value added by manufacture included in the tables of this report are not comparable to the prior-year data shown in table 1a of this report and in historical census of manufactures and annual survey of manufactures publications.

In using inventory data by stage of fabrication for "all industries" and at the two-digit industry 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 another 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 individual industries, industry groups, and "all manufacturing", which are aggregates of figures reported by establishments in specified industries.

Specialization and coverage ratios. These items are not collected on the report forms but are derived from the data shown in table 5b. 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 5a and data on product shipments shown in tables 6a through 6c.

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.

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.

While the excluded items do benefit employees and all or part of their cost generally is similar to the items covered in the ASM labor costs statistics, accounting records generally do not provide reliable figures on net employee benefits of these types.

Retirements of depreciable assets. Included in this item is the gross value of assets sold, retired, scrapped, destroyed, etc., during 1992. 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.

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.

Rental payments. Total rental payments is 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.

Depreciable assets. Total value of gross depreciable assets is collected on all census forms. However, the detail for depreciable assets is collected only on the ASM forms. The data encompass all fixed depreciable assets on the books of establishments at the beginning and end of the year. 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 new and used capital expenditures, less retirements, equalled assets at the end of the year.

New and used capital expenditures. The data for total new capital expenditures, new building expenditures, new machinery expenditures, and total used capital expenditures are collected on all census forms. However, the breakdown between expenditures for used buildings and other structures and expenditures for used machinery and equipment is collected only on the ASM form. (See further explanation on capital expenditures in section 1.)

Quantity of electric energy consumed for heat and power. Data on the cost of purchased electric energy are collected on all census forms. However, data on the quantity of purchased electric energy are collected only on the ASM forms. 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.

Breakdown of new capital expenditures for machinery and equipment. ASM establishments were requested to separate their capital expenditures for new machinery and equipment into (1) automobiles, trucks, etc., for highway use, (2) computers and peripheral data processing equipment, and (3) all other.

The category "automobiles, trucks, etc., for highway use" is intended to measure expenditures for vehicles designed for highway use that were acquired through a purchase or lease-purchase agreement. Vehicles normally operating off public highways (vehicles specifically designed to transport materials, property, or equipment on mining, construction, logging, and petroleum development projects) are excluded from this item.

Foreign content of cost of materials. Establishments included in the ASM sample panel were requested to provide information on foreign-made materials purchased or transferred from foreign sources. This includes materials acquired from a central warehouse or other domestic establishment of the same company but made in an operation outside of the 50 States, District of Columbia, Puerto Rico, or U.S. territories.

Cost of purchased services. 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 reflect the costs paid directly by the establishment, and exclude 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, such as painting, roof repairs, replacing parts, and overhauling equipment. Such 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 were capitalized are considered capital expenditures for used buildings and machinery and are, 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.

Three basic approaches were utilized to produce these statistics.

1. For items 1 through 6, data were estimated (imputed) for all non-ASM establishments using the available data in the establishment record and industry-based parameters. The statistics were then generated by simply tabulating all census records including the imputed value for non-ASM establishments and the unweighted value for ASM establishments. Separate imputation rates were developed and are shown in the table. For quantity of purchased electricity for heat and power (item 7), a similar procedure was used; however, the imputation parameters were geographically-based instead of industry-based. For quantities of generated less sold electricity, no imputation was performed for non-ASM establishments. The estimates for these items are simply tabulations of unweighted ASM values.

Since the published statistics for these items were developed from the complete census universe and not just the ASM establishments, there are no sampling variances associated with these statistics. However, there is an unknown level of bias for each of the items due to the imputation of the non-ASM establishments. This bias is felt to be small due to the strong correlation between the items being imputed and the collected items that were used to generate the impute values.

2. For items 8 and 9, the estimates were developed using a ratio estimation methodology. For item 8, an estimate of the breakout of new capital expenditures for machinery and equipment into the three categories was made from ASM establishments reporting these categories. The estimated proportions were then applied to the corresponding census value for new capital expenditures for machinery and equipment to produce the estimates.

The estimates for item 9, foreign content of cost of materials, were developed in a similar manner based on costs of parts, supplies, and components (item 5a) as the control total for the three categories.

For items 8 and 9, an adjustment ratio of the following form was computed:

$$R_j = \frac{NMc}{TMEasm}$$

where:

NMc = the census value of new capital expenditures for machinery and equipment

TMEasm = the weighted ASM value of new capital expenditures for machinery and equipment from reporters of the detailed breakout data

3. For item 10, cost of purchased services, the estimates were made by simply tabulating weighted data for all the ASM records that reported the item. A response coverage ratio (a measure of the extent to which respondents reported for each item) is shown in table 3c for the types of services. It is derived for each item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight, see appendix B) for those ASM establishments that reported the specific inquiry to the weighted total employment for all ASM establishments classified in the industry.

Appendix B.

Annual Survey of Manufactures Sampling and Estimating Methodologies

DESCRIPTION OF SURVEY SAMPLE

The annual survey of manufactures (ASM) contains two components. The mail portion of the survey is a probability sample of about 64,000 manufacturing establishments selected from a total of about 216,000 establishments. These 216,000 establishments represent all manufacturing establishments of multiunit companies and all single-establishment companies mailed schedules in the 1987 Census of Manufactures. This mail portion is supplemented annually by a Social Security Administration list of new manufacturing establishments opened after 1987 and a list of new multiunit manufacturing establishments identified from the Census Bureau's Company Organization Survey.

For the current panel, all establishments of companies with 1987 shipments in manufacturing in excess of \$500 million were included in the survey panel with certainty. There are approximately 500 such companies collectively accounting for approximately 18,000 establishments. For the remaining portion of the mail survey, the establishment was defined as the sampling unit. For this portion, all establishments with 250 employees or more and establishments with a very large value of shipments also were included in the survey panel with certainty. A total of 12,100 establishments were selected from this portion of the universe with certainty. Therefore, of the 64,000 manufacturing establishments included in the ASM panel, approximately 31,000 are selected with certainty. These certainty establishments collectively account for approximately 80 percent of the total value of shipments in the 1987 census.

Smaller establishments in the remaining portion of the mail survey were sampled with probabilities ranging from 0.999 to 0.005 in accordance with mathematical theory for optimum allocation of a sample. The probabilities of selection assigned to the smaller establishments were proportional to measures of size determined for each establishment. The measures of size depend directly upon each establishment's 1987 product class values and the historic variability of the year-to-year shipments of each product class. Product classes displaying more volatile year-to-year change in shipments at the establishment level were sampled at a heavier rate.

This method of assigning measures of size was used in order to maximize the precision (that is, minimize the variance of estimates of the year-to-year change) in the value of product class shipments. Implicitly, it also gave weight differences in employment, value added, and other

general statistics, since these are highly correlated with value of shipments. Individual sample selection probabilities were obtained by multiplying each establishment's final measure of size by an overall sampling fraction coefficient calculated to yield a total expected sample size.

The sample selection procedure gave each establishment in the sampling frame an independent chance of selection. This method of independent selection permits the rotation of small establishments out of a given sample panel without introducing a bias into the survey estimates.

The nonmail portion of the survey includes all single-establishment companies that were tabulated as administrative records in the 1987 Census of Manufactures. Although this portion contained approximately 134,000 establishments, it accounted for less than 2 percent of the estimate for total value of shipments at the total manufacturing level. This portion was not sampled; rather, the data for every establishment in this group were estimated based on selected information obtained annually from the administrative records of the Internal Revenue Service and the Social Security Administration. This administrative-records information, which includes payroll, total employment, industry classification, and physical location of the establishment, was obtained under conditions which safeguard the confidentiality of both tax and census records. Estimates of data other than payroll and employment for these small establishments were developed from industry averages.

The corresponding estimates for the mail and nonmail establishments were added together, along with the base-year differences, as defined in the Description of Estimating Procedure section, to produce the figures shown in this publication.

DESCRIPTION OF ESTIMATING PROCEDURES

Most of the ASM estimates for the years 1988-1991 were computed using a difference estimation procedure. For each item, a base-year difference was developed. This base-year difference is equal to the difference between the 1987 census published number for an item total and the linear ASM estimate of the total for 1987. The ASM linear estimate was obtained by multiplying each sample establishment's data by its sample weight (the reciprocal of its probability of selection) and summing the weighted values.

These base-year differences were then added to the corresponding current-year linear estimates, which include the sum of the estimates for the mail and nonmail

establishments, to produce the estimates for the years 1983-1991. Estimates developed by this procedure usually are far more reliable than comparable linear estimates developed from the current sample data alone.

However, the 1992 sample estimates for the purchased service items, shown in table 3c, are strictly ASM linear estimates developed only from ASM establishments that reported the specific item.

The remaining estimates in table 3c, showing the breakdown of expenditures for new machinery and equipment and costs of parts (separated into purchases from foreign sources and purchases from domestic sources), were computed as ratio estimates. To do this, linear estimates of the new machinery detail items were developed from the ASM establishments and were ratio adjusted to the corresponding census total for new machinery. In a similar fashion, the ASM linear estimates of the detailed purchased materials items were ratio adjusted to the corresponding census total for cost of parts.

QUALIFICATIONS OF THE DATA

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

The particular sample selected for the ASM is one of a large number of 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 theoretical, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data for selected statistics in this report. They are presented 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:

1. From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
2. From two standard errors below to two standard errors above the derived estimate for about 19 of 20 of all possible samples.
3. 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 as 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 in the course of 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 only moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown.

The concept of complete coverage under the conditions prevailing for the ASM is not identical to the complete coverage of the census of manufactures, as the censuses have been conducted. Nearly all types of operational errors that affect the ASM also occur in the censuses. The ASM and the censuses, are conducted under quite different conditions, and operational errors can be better controlled in the ASM than in the censuses. As a result, for many of the census figures, the errors are of the same order of size as the total errors of the corresponding annual survey estimates. The differences between the census and ASM operating conditions also disturb, to some degree, the comparability of the ASM and census data.

Any figures shown in the tables in this publication having an associated standard error exceeding 15 percent may be of limited reliability. However, the figure may be combined with higher-level totals, creating a broader aggregate, which then may be of acceptable reliability.

Appendix C. Product Code Reference Tables

Part 1. Comparability of Product Classes and Product Codes That Changed: 1992 to 1987

1992	1987	1992	1987	1992	1987	1992	1987
24112 20	24112 28	24351 01	24351 00	24490 43	24490 41	24932 05	24932 00
24112 21	24112 28	24351 05	24351 00	24490 43	24490 51	24932 07	24932 00
24112 26	24112 23	24351 07	24351 00	24490 73	24490 71	24932 09	24932 00
24112 26	24112 28	24351 47	24351 00	24490 73	24490 81	24932 21	24932 00
24114 06	24114 08	24365 01	24365 00	24913 02	24913 01	24933 16	24933 15
24114 08	24114 10	24365 05	24365 00	24913 02	24913 03	24933 16	24933 18
24114 31	24114 15	24365 11	24365 00	24913 21	24913 15		
24114 31	24114 29	24365 21	24365 00	24913 21	24913 19	24934 12	24934 00
24114 31	24114 33	24365 23	24365 00			24934 14	24934 00
24114 31	24114 35			24919 11	24919 01	24934 16	24934 00
24290 87	24290 61	24366 07	24366 00	24919 11	24919 03	24934 17	24934 00
24290 87	24290 83	24366 11	24366 00	24919 11	24919 09	24934 18	24934 00
		24366 13	24366 00			24934 19	24934 00
		24366 15	24366 00	24931 20	24931 12		
		24366 17	24366 00	24931 20	24931 14	24936 12	24936 14
24315 87	24315 98			24931 20	24931 16	24936 12	24936 15
24315 97	24315 98			24931 20	24931 18		
		24367 03	24367 00	24931 21	24931 18		
		24367 21	24367 00	24931 21	24931 07	24994 98	24994 61
24317 25	24317 21	24367 23	24367 00	24931 21	24931 09	24994 98	24994 79
24317 25	24317 31	24367 25	24367 00	24931 21	24931 19	24994 98	24994 99

Part 2. Comparability of Product Classes and Product Codes That Changed: 1987 to 1992

1987	1992	1987	1992	1987	1992	1987	1992
24112 23	24112 26	24351 00	24351 01	24490 41	24490 43	24932 00	24932 05
24112 28	24112 20	24351 00	24351 05	24490 51	24490 43	24932 00	24932 07
24112 28	24112 21	24351 00	24351 07	24490 71	24490 73	24932 00	24932 09
24112 28	24112 26	24351 00	24351 47	24490 81	24490 73	24932 00	24932 21
24114 08	24114 06	24365 00	24365 01	24913 01	24913 02	24933 15	24933 16
24114 10	24114 06	24365 00	24365 05	24913 03	24913 02	24933 18	24933 16
24114 15	24114 31	24365 00	24365 11	24913 15	24913 21		
24114 29	24114 31	24365 00	24365 21	24913 19	24913 21		
24114 33	24114 31	24365 00	24365 23			24934 00	24934 12
24114 35	24114 31			24919 01	24919 11	24934 00	24934 14
		24366 00	24366 07	24919 03	24919 11	24934 00	24934 16
24290 61	24290 87	24366 00	24366 11	24919 09	24919 11	24934 00	24934 17
24290 83	24290 87	24366 00	24366 13			24934 00	24934 18
		24366 00	24366 15	24931 07	24931 21	24934 00	24934 19
		24366 00	24366 17	24931 09	24931 21		
24315 98	24315 87			24931 12	24931 20	24936 14	24936 12
24315 98	24315 97			24931 14	24931 20	24936 15	24936 12
		24367 00	24367 03	24931 16	24931 20		
		24367 21	24367 21	24931 18	24931 20	24994 61	24994 98
24317 21	24317 25	24367 00	24367 23	24931 18	24931 20	24994 79	24994 98
24317 31	24317 25	24367 00	24367 25	24931 19	24931 21	24994 99	24994 98

Part 3. Current Industrial Reports by Product Code

[Not applicable for this report]

Publication Program

1992 CENSUS OF MANUFACTURES

Publications of the 1992 Census of Manufactures, containing preliminary and final data on manufacturing establishments in the United States, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services, Bureau of the Census, Washington, DC 20233-8300.

Preliminary Reports

Industry series—83 reports (MC92-I-20A(P) to -39D(P))

Preliminary industry data are issued in 83 separate reports covering 459 industries. Preliminary summary data for the United States and States are released in one report.

Final Reports

Industry series—83 reports (MC92-1-20A to -39D)

Each of the 83 reports provides information for a group of related industries ("dairy products" includes industries for butter, cheese, milk, etc.). Final figures for the United States are shown for each of the 459 manufacturing industries on quantity and value of products shipped and materials consumed, cost of fuels and electric energy, capital expenditures, assets, rents, inventories, employment, payroll, payroll supplements, hours worked, value added by manufacture, number of establishments, and number of companies. Comparative statistics for earlier years are provided where available.

For each industry, data on value of shipments, value added by manufacture, capital expenditures, employment, and payroll are shown by employment-size class of establishment, State, and degree of primary product specialization.

Geographic area series—51 reports (MC92-A-1 to -51)

A separate report is being published for each State and the District of Columbia. Each report presents data for industry groups and industries on value of shipments, cost of materials, value added by manufacture, employment, payroll, hours worked, new capital expenditures, and number of manufacturing establishments for the State, MA's, counties, and selected places. Comparative statistics for earlier census years are shown for the State and large MA's. Manufacturing totals are presented for each county and for places with significant manufacturing activity. Detailed statistics (including inventories, assets, rents, and energy costs) are presented only in statewide totals.

Subject series—3 reports (MC92-S-1 to -3)

Each of the three reports contains detailed statistics for an individual subject, such as concentration ratios in manufacturing, manufacturers' shipments to the Federal Government, and a general national-level summary.

Reference series—1 report (MC92-R-1)

The *Numerical List of Manufactured and Mineral Products* includes a description of the principal products and services published in the 1992 Censuses of Manufactures and Mineral Industries.

Location of Manufacturing Plants—1 report (MC92-LM)

This report includes data for number of establishments by four-digit SIC industry and by employment-size class for counties, incorporated places of 2,500 inhabitants or more, and Zip Codes for each State. This report is available only on compact disc-read only memory (CD-ROM).

Analytical Reports—2 reports (AR92-1 and -2)

Exports From Manufacturing Establishments (AR92-1)

This report presents data on exports by two- and three-digit SIC industry groups for the United States and States. Information is presented on value of direct report shipments and estimates of the employment required to manufacture these products. Included are estimates of employment in manufacturing and nonmanufacturing establishments that supply parts, materials, and services for production of manufactured exports.

Selected Characteristics of Manufacturing Establishments That Export (AR92-2)

This report presents data on the number of manufacturing companies and establishments that export by major group, State, employment size, and ratios of exports to shipments.

Electronic Media

All data included in the printed reports are available on CD-ROM. The CD-ROM's provide the same information found in the reports as well as additional information not published in the final reports, such as location of manufacturing plants. Electronic media products are available for users who wish to summarize, rearrange, or process large amounts of data. These products, with corresponding technical documentation, are sold by Data User Services Division, Customer Services, Bureau of the Census, Washington, DC 20233-8300.

OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, financial, insurance, real estate, service industries, construction industries, mineral industries, transportation, communications, utilities, enterprise statistics, minority-owned businesses, and women-owned businesses also are available from the 1992 Economic Census. A separate series of reports covers the census of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Commonwealth of the Northern Mariana Islands. Separate announcements describing these reports are available free of charge from Data User Services Division, Customer Services, Bureau of the Census, Washington, DC 20233-8300.