Flat Glass: 2001 Issued September 2002

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Current Industrial Reports

Current data are released electronically on Internet for all individual surveys as they become available. Use: http://www.census.gov/mcd/. Individual reports can be accessed by choosing "Current Industrial Reports (CIR)," clicking on "CIRs by Subsector;" then choose the survey of interest. Follow the menu to view the PDF file or to download the worksheet file (WK format) to your personal computer.

These data are also available on Internet through the U.S. Department of Commerce and STAT-USA by subscription. The Internet address is: www.stat-usa.gov/. Follow the prompts to register. Also, you may call 202-482-1986 or 1-800-STAT-USA, for further information.

SUMMARY OF FINDINGS. For the year 2001, 6.4 billion square feet of flat glass were produced

and 6.4 billion square feet of flat glass were shipped. The reported value of shipments was \$2.1 billion. Automotive glass accounted for 26 percent of both production and shipments (in square footage) of flat glass for the year.

In 2001, 5.0 billion square feet of flat glass were shipped out of float glass facilities for sale or further fabrication within a company. These external shipments accounted for 78.5 percent of the total quantity of shipments and 72.2 percent of the total value of shipments. Exports reported by flat glass manufacturers amounted to 380 million square feet, 5.9 percent of their total shipments.

For general CIR information, explanation of general terms and historical note, see the appendix.

Address inquiries concerning these data to Primary Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Tracy Fenwick, 301-457-1603.

 $For \ mail \ or \ fax\ copies\ of\ this\ publication,\ please\ contact\ the\ Information\ Services\ Center,\ MCD,\ Washington,\ DC\ 20233-6900,\ or\ call\ 301-457-4673.$



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Table 1. Summary of Flat Glass Shipments and Sales: 2001 and 2000

Product description	Shipments quantity pro consumed w compa Total (short tons)	duced and ithin each	Value of sl Current dollars (\$1,000)	dollars dollars 1/		Inventory (end of year) (1,000 sq ft)	Producer Price Index (1982=100.0)
2001	(Short tons)	(1,000 5q 10)	(01,000)	(01,000)	(1,000 sq ft)	(1,000 34 10)	(1002-100.0)
Flat glass	5,260,040	6,380,598	2,090,593	2,177,701	1,329,047	886,516	96.0
Exports 2/	344,512	379,542	140,434	146,285	(X)	(X)	96.0
Outside customer sales 3/	4,095,764	5,011,594	1,510,184	1,573,108	(X)	(X)	96.0
2000							
Flat glass	5,461,566	6,586,773	2,152,363	2,265,645	r / 1,313,511	893,485	95.0
Exports 2/	371,486	403,441	154,457	162,586	(X)	(X)	95.0
Outside customer sales 3/	4,253,192	5,092,110	1,594,701	1,678,633	(X)	(X)	95.0

r/Revised by 5 percent or more from previously published data. $\quad X \; \text{Not applicable}.$

^{1/}A djustments for price changes were made to the data using the producer price index for flat glass as published by the Bureau of LaborStatistics (BLS).

^{2/}Exports reported by flat glass manufacturers only.
3/Shipments and sales to nonraw glass producing companies.

Table 2a. Summary of Production, Shipments, and Inventories of Flat Glass: 2001

					Shipments	(includes	Quantity	
				quantity produced and		produced		
Product				consumed v		and		
code	Product description	Production		company)		consumed		
		No.					within each	Inventory
		of	Total	Total	Total	Total	company	(end of year)
		cos.	(short tons)	(1,000 sq ft)	(short tons)	(1,000 sq ft)	(1,000 sq ft)	(1,000 sq ft)
3272111	Flat glass	6	5,417,006	6,392,073	5,260,040	6,380,598	1,329,047	886,516
	Automotive	(X)	1,238,447	1,673,067	1,218,065	1,649,710	897,156	290,267
	Standard greens/blue greens	(X)	555,730	840,776	550,221	838,388	(D)	111,287
3272111001	Less than 2.9 mm thick	5	332,130	598,433	329,486	598,932	(D)	62,733
3272111006	2.9 mm or thicker	5	223,600	242,343	220,735	239,456	(D)	48,554
	High performance greens/blue greens/							
	blues	(X)	364,287	501,720	354,625	487,972	(D)	93,822
3272111011	Less than 2.9 mm thick	3	(D)	(D)	(D)	(D)	(D)	(D)
3272111016	2.9 mm or thicker	3	(D)	(D)	(D)	(D)	(D)	(D)
	Privacy (high performance uncoated							
	dark gray) and other automotive	(X)	318,430	330,571	313,219	323,350	155,292	85,158
3272111021	Privacy (high performance uncoated							
	dark gray)	4	(D)	(D)	(D)	(D)	(D)	(D)
3272111026	Other automotive	4	(D)	(D)	(D)	(D)	(D)	(D)
	Nonautomotive	(X)	4.178.559	4.719.006	4.041.975	4.730.888	431.891	596.249
	Pyrolytically coated	(X)	225,689	213,887	216,685	209,050	(D)	49,904
3272111031	Greens/blue greens/blues	3	(D)	(D)	(D)	(D)	(D)	(D)
3272111036	All other nonautomotive pyrolytically	Ü	(2)	(2)	(2)	(2)	(2)	(2)
02.2111000	coated	4	(D)	(D)	(D)	(D)	(D)	(D)
	Nonautomotive other than pyrolytically		(-)	(-)	(-)	(-)	(-)	(-)
	coated:							
	Clear	(X)	3.558.644	4,151,176	3,436,983	4,178,090	414.922	429.370
3272111041	Less than 5.0 mm thick	Ì Ś	2,482,711	3,440,958	2,385,932	3,460,971	369,895	318,529
3272111046	5.0 mm or thicker	5	1,075,933	710,218	1,051,051	717,119	45,027	110,841
	Greens/blue greens/blues	(X)	148,170	138,971	137,015	127,573	(D)	32,483
3272111051	Less than 5.0 mm thick	5	46,613	66,982	43,237	63,170	(D)	11,486
3272111056	5.0 mm or thicker	5	101,557	71,989	93,778	64,403	(D)	20,997
	All bronze	(X)	97,286	82,239	96,119	81,587	(D)	32,781
3272111061	Less than 5.0 mm thick	5	23,383	29,071	21,211	27,836	(D)	(D)
3272111066	5.0 mm or thicker	4	73,903	53,168	74,908	53,751	(D)	(D)
	All gray and other	(X)	148,770	132,733	155,173	134,588	(D)	51,711
3272111071	All gray, less than 5.0 mm thick	5	44,325	56,499	43,366	53,424	(D)	20,153
3272111076	All gray, 5.0 mm or thicker	5	(D)	(D)	(D)	(D)	(D)	(D)
3272111081	Other, less than 5.0 mm thick	2	(D)	(D)	(D)	(D)	(D)	(D)
3272111086	Other, 5.0 mm or thicker	3	(D)	(D)	(D)	(D)	(D)	(D)
3272115097	Heat-treated flat glass for nonautomotive							
	uses, treated in primary glass manufacturing							
	plants 1/	3	318,501	355,316	295,218	351,605	(D)	(D)

 $[\]label{eq:def:D} D \ \ \mbox{Withheld to avoid disclosing data for individual companies.} \quad \ \mbox{X Not applicable}.$

Note: Data are limited to inventories at manufacturing establishments. \\

 $^{1/}Glass\ reported\ in\ this\ category\ represents\ the\ portion\ of\ nonautomotive\ flat\ glass\ that\ has\ been\ heat\ treated.$

Table 2b. Summary of Production, Shipments, and Inventories of Flat Glass: 2000

Product					Shipments (includes quantity produced and consumed within each		Quantity produced and	
code	code Product description		Produ	ction	company)		consumed	
		No.					within each	Inventory
		of	Total	Total	Total	Total	company	(end of year)
		cos.	(short tons)	(1,000 sq ft)	(short tons)	(1,000 sq ft)	(1,000 sq ft)	(1,000 sq ft)
3272111	Flat glass	6	5,618,014	6,677,244	5,461,566	6,586,773	r / 1,313,511	893,485
	Automotive	(X)	1,377,065	1,813,287	1,351,129	1,804,043	858,225	274,412
	Standard greens/blue greens	(X)	664,907	959,602	671,530	975,615	(D)	109,788
3272111001	Less than 2.9 mm thick	5	366,200	657,060	370,574	667,544	(D)	63,582
3272111006	2.9 mm or thicker	5	298,707	302,542	300,956	308,071	(D)	46,206
	High performance greens/blue greens/							
	blues	(X)	364,107	489,465	353,936	487,722	(D)	83,454
3272111011	Less than 2.9 mm thick	3	(D)	(D)	(D)	(D)	(D)	(D)
3272111016	2.9 mm or thicker	3	(D)	(D)	(D)	(D)	(D)	(D)
	Privacy (high performance uncoated							
	dark gray) and other automotive	(X)	348,051	364,220	325,663	340,706	164,231	81,170
3272111021	Privacy (high performance uncoated							
	dark gray)	4	(D)	(D)	(D)	(D)	(D)	(D)
3272111026	Other automotive	3	(D)	(D)	(D)	(D)	(D)	(D)
	Nonautomotive	(X)	4.240.949	4.863.957	4.110.437	4.782.730	455.286	619.073
	Pyrolytically coated	(X)	223,194	214,033	212,645	207,301	455,260 (D)	46,128
3272111031	Greens/blue greens/blues	3	25,485	16,994	29,579	20,733	(D)	5,507
3272111031	All other nonautomotive pyrolytically	3	23,463	10,334	23,373	20,733	(D)	3,307
3272111030	coated	4	197,709	197,039	183,066	186,568	(D)	40,621
	Nonautomotive other than pyrolytically	-	137,703	107,000	103,000	100,300	(D)	40,021
	coated:							
	Clear	(X)	3.630.649	4,321,718	3,543,677	4,267,267	436.533	467,457
3272111041	Less than 5.0 mm thick	5	2,483,867	3,539,939	2,451,845	3,532,018	380,497	348,120
3272111046	5.0 mm or thicker	5	1,146,782	781,779	1,091,832	735,249	56,036	119,337
	Greens/blue greens/blues	(X)	118,666	102,164	120,819	107,281	(D)	21,668
3272111051	Less than 5.0 mm thick	5	28,892	41,547	29,049	41,095	(D)	7,819
3272111056	5.0 mm or thicker	5	89,774	60,617	91,770	66,186	(D)	13.849
	All bronze	(X)	106,085	84,147	91,748	74,918	(D)	31,098
3272111061	Less than 5.0 mm thick	5	20,390	23,184	18,660	24,660	(D)	9,884
3272111066	5.0 mm or thicker	5	85,695	60,963	73,088	50,258	(D)	21,214
	All gray and other	(X)	162,355	141,895	141,548	125,963	(D)	52,722
3272111071	All gray, less than 5.0 mm thick	5	43,339	55,303	45,769	56,409	(D)	16,814
3272111076	All gray, 5.0 mm or thicker	5	(D)	(D)	(D)	(D)	(D)	(D)
3272111081	Other, less than 5.0 mm thick	2	(D)	(D)	(D)	(D)	(D)	(D)
3272111086	Other, 5.0 mm or thicker	2	(D)	(D)	(D)	(D)	(D)	(D)
3272111097	Heat-treated flat glass for nonautomotive		(2)	(2)	(2)	(2)	(2)	(2)
	uses, treated in primary glass manufacturing							
	plants 1/	3	332,395	382,674	323,513	382,746	(D)	(D)

D Withheld to avoid disclosing data for individual companies. r/Revised by 5 percent or more from previously published data. X Not applicable.

Note: Data are limited to inventories at manufacturing establishments. \\

 $^{1/}Glass\ reported\ in\ this\ category\ represents\ the\ portion\ of\ nonautomotive\ flat\ glass\ that\ has\ been\ heat\ treated.$

Table 3. Value of Shipments, Exports, and Imports of Flat Glass: 2001 and 2000 (Thousands of dollars)

Product description	Manufacturers' shipments (f.o.b. plant) 1/	Exports of domestic merchan- dise 2/3/ (value at port)	Percent of exports to manu- facturers' shipments	Imports for consump- tion 4/ (value at port)	Apparent consumption 5/	Percent imports to apparent consump- tion
2001						
Total flat glass	2,090,593	509,728	24.4	170,952	1,751,817	9.8
2000						
Total flat glass	2,152,363	512,475	23.8	182,556	1,822,444	10.0

^{1/}Value of "Manufacturers' shipments" is in current dollars.

^{2/}For a comparison of North American Industry Classification System (NAICS)-based product codes with Schedule B export codes and HTSUSA import codes, see Table 4.

^{3/}Source: Census Bureau report EM 545, U.S. Exports.

^{4/}Source: Census Bureau report IM 145, U.S. Imports for Consumption.

^{5/}Apparent consumption is derived by subtracting exports from the total of manufacturers' shipments plus imports, including duty.

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes and HTSUSA Import Codes: 2001

Product code	Product description	Export code 1/	Import code 2/
3272111	Glasssheet, plate, float	7003.12.0000 7003.19.0000	7003.12.0000 7003.19.0000
		7004.20.0000	7004.20.1000 7004.20.2010 7004.20.2020 7004.20.5000
		7004.90.0000	7004.90.0500 7004.90.1000 7004.90.1500 7004.90.2000 7004.90.2510 7004.90.2520 7004.90.3010 7004.90.3020 7004.90.3050 7004.90.4000 7004.90.5000
		7005.10.0000	7005.10.4000 7005.10.8000
		7005.21.0000	7005.21.1010 7005.21.1030 7005.21.2000
		7005.29.0000	7005.29.0410 7005.29.0450 7005.29.0810 7005.29.0850 7005.29.1410 7005.29.1450 7005.29.1810 7005.29.1850 7005.29.2500

1/Source: 2001 edition, Harmonized System-based Schedule B Statistical Classification of

Domestic and Foreign Commodities Exported from the United States.

2/Source: Harmonized Tariff Schedule of the United States, Annotated (2001).

Appendix.

General CIR Survey Information, Explanation of General Terms and Historical Note

GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Listed below are the NAICS sectors:

- 21 Mining
- 22 Utilities
- 23 Construction
- 31-33 Manufacturing
- 42 Wholesale Trade
- 44-45 Retail Trade
- 48-49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Educational Services
- 62 Health Care and Social Assistance
- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services
- 81 Other Services (except Public Administration)

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

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

FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

EXPLANATION OF GENERAL TERMS

Capacity. The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

Consumption. Materials used in producing or processing a product or otherwise removing the product from the inventory.

Exports. Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

Gross shipments. The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

Interplant transfers. Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

Inventories. The quantity or value of finished goods, work in progress, and materials on hand.

Machinery in place. The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

Net receipts. Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

Production. The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

Quantities produced and consumed. Quantities of each type of product produced by a company for internal consumption within that same company.

Quantity and value of new orders. The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

Quantity and value of shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and

returns. Shipments to a company's own branches are assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Stocks. Total quantity of ending finished inventory.

Unfilled orders (backlog). Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

HISTORICAL NOTE

Data on flat glass have been collected by the Census Bureau since 1957. Historical data may be obtained from Current Industrial Reports available at your local Federal Depository Library.