

Plastics Bottle Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



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

Helping You Make Informed Decisions

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



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)				
326160, Plastics bottle manufacturing 2002..	184	403	34 001	1 132 845	29 188	57 916	903 869	3 880 124	4 135 473	7 948 466	'518 545
2001..	N	N	36 546	1 129 306	30 932	63 277	883 889	3 973 265	4 295 149	8 257 350	465 228
2000..	N	N	37 287	1 132 707	31 281	64 491	881 427	3 781 919	4 244 951	7 981 992	462 495
1999..	N	N	36 844	1 070 003	31 854	65 564	845 082	3 814 020	3 439 748	7 217 551	778 680
1998..	N	N	35 160	1 016 353	30 045	60 820	762 464	3 420 758	3 526 666	6 939 204	573 254
1997..	245	466	33 933	963 813	28 892	59 651	736 959	3 097 170	3 267 717	6 335 218	447 247

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

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.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
	E ¹	Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)					Wages (\$1,000)
326160, Plastics bottle manufacturing												
United States.....	—	403	309	34 001	1 132 845	29 188	57 916	903 869	3 880 124	4 135 473	7 948 466	'518 545
Alabama.....	—	7	6	453	11 179	390	868	8 410	43 504	50 227	89 871	'3 689
Arizona.....	1	8	4	317	11 671	287	590	9 865	41 171	47 787	85 638	'4 950
California.....	—	55	37	4 161	129 500	3 449	6 208	99 082	369 121	468 535	837 366	'36 030
Connecticut.....	—	4	2	437	15 395	355	646	10 779	23 484	26 981	49 734	'1 080
Florida.....	1	18	11	966	32 861	831	1 775	25 375	113 019	151 321	263 245	'12 886
Georgia.....	—	19	17	1 636	51 352	1 468	3 257	42 996	171 990	172 664	343 833	'24 767
Illinois.....	—	29	24	3 112	108 570	2 733	4 367	90 540	398 591	359 270	753 716	'64 131
Indiana.....	—	14	13	1 655	52 552	1 477	3 074	43 235	170 115	131 371	302 704	'21 827
Iowa.....	2	8	6	525	18 513	464	985	14 881	30 469	88 919	122 005	'31 857
Kansas.....	1	5	2	175	5 840	149	342	4 452	22 930	26 099	47 621	'1 384
Kentucky.....	—	9	6	788	28 184	692	1 508	22 557	66 026	103 087	170 082	'22 345
Maryland.....	—	7	6	829	27 259	755	1 688	23 196	123 444	131 519	250 995	'9 203
Massachusetts.....	—	6	4	276	9 742	242	461	8 139	51 661	12 282	65 138	'1 555
Michigan.....	—	6	4	501	18 978	416	878	15 280	67 312	58 155	122 746	'4 244
Minnesota.....	—	4	4	130	3 934	115	216	3 036	10 158	7 639	17 921	'1 065
Missouri.....	1	15	11	1 153	37 305	993	1 926	28 604	111 745	88 131	198 232	'9 658
New Hampshire.....	—	8	8	678	26 055	541	1 156	20 554	114 042	83 297	197 280	'6 048
New Jersey.....	1	16	13	1 688	59 154	1 459	3 183	47 174	164 799	166 291	334 627	'41 037
New York.....	—	9	9	1 689	54 535	1 258	2 568	37 932	182 797	98 930	282 746	'19 977
North Carolina.....	—	11	8	765	23 935	639	1 323	18 936	71 575	98 286	169 441	'12 229
Ohio.....	—	25	20	3 881	127 602	3 529	6 996	109 778	418 290	559 072	972 967	'66 410
Pennsylvania.....	—	22	21	2 299	77 412	1 948	3 909	60 122	347 565	332 037	673 209	'26 778
South Carolina.....	—	9	8	525	20 879	466	1 055	17 349	85 067	138 917	220 676	'5 589
Texas.....	—	23	17	1 607	55 415	1 300	2 589	43 577	240 112	223 886	456 700	'23 039
Virginia.....	2	6	4	908	30 925	814	1 675	25 075	97 318	105 541	201 707	'9 707
Washington.....	—	7	6	505	15 761	434	751	13 303	36 220	77 348	115 776	'12 535
Wisconsin.....	—	8	8	638	21 048	498	1 054	14 330	62 717	50 593	111 228	'9 041

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

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

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
326160, Plastics bottle manufacturing	
Companies ¹	number.. 184
All establishments ²	number.. 403
Establishments with 1 to 19 employees.....	number.. 94
Establishments with 20 to 99 employees.....	number.. 195
Establishments with 100 employees or more.....	number.. 114
All employees ³	number.. 34 001
Total compensation.....	\$1,000.. 1 456 027
Annual payroll.....	\$1,000.. 1 132 845
Total fringe benefits.....	\$1,000.. 323 182
Production workers, average for year.....	number.. 29 188
Production workers on March 12.....	number.. 29 010
Production workers on May 12.....	number.. 29 230
Production workers on August 12.....	number.. 29 325
Production workers on November 12.....	number.. 29 092
Production worker hours.....	1,000.. 57 916
Production worker wages.....	\$1,000.. 903 869
Total cost of materials.....	\$1,000.. 4 135 473
Materials, parts, containers, packaging, etc., used.....	\$1,000.. 3 761 196
Resales.....	\$1,000.. 34 090
Purchased fuels.....	\$1,000.. 14 654
Purchased electricity.....	\$1,000.. 302 788
Contract work.....	\$1,000.. 22 745
Quantity of electricity purchased for heat and power.....	1,000 kWh.. 5 458 415
Quantity of electricity generated less sold for heat and power.....	1,000 kWh.. D
Total value of shipments.....	\$1,000.. 7 948 466
Primary products value of shipments.....	\$1,000.. 7 652 574
Secondary products value of shipments.....	\$1,000.. 236 292
Total miscellaneous receipts.....	\$1,000.. 59 600
Value of resales.....	\$1,000.. 39 165
Contract receipts.....	\$1,000.. D
Other miscellaneous receipts.....	\$1,000.. D
Primary products specialization ratio.....	percent.. 97
Value of primary products shipments made in all industries.....	\$1,000.. 7 950 708
Value of primary products shipments made in this industry.....	\$1,000.. 7 652 574
Value of primary products shipments made in other industries.....	\$1,000.. 298 134
Coverage ratio.....	percent.. 96
Value added.....	\$1,000.. 3 880 124
Total inventories, beginning of year.....	\$1,000.. 703 706
Finished goods inventories.....	\$1,000.. 373 440
Work-in-process inventories.....	\$1,000.. 66 863
Materials and supplies inventories.....	\$1,000.. 263 403
Total inventories, end of year.....	\$1,000.. 764 790
Finished goods inventories.....	\$1,000.. 443 119
Work-in-process inventories.....	\$1,000.. 64 315
Materials and supplies inventories.....	\$1,000.. 257 356
Gross value of depreciable assets (acquisition costs) at beginning of year.....	\$1,000.. 5 928 602
Total capital expenditures (new and used).....	\$1,000.. 1 518 545
Buildings and other structures (new and used).....	\$1,000.. 129 383
Machinery and equipment (new and used).....	\$1,000.. 1 489 162
Automobiles, trucks, etc., for highway use.....	\$1,000.. 14 720
Computers and peripheral data processing equipment.....	\$1,000.. 13 832
All other expenditures for machinery and equipment.....	\$1,000.. 1 470 610
Total retirements.....	\$1,000.. 1 203 678
Gross value of depreciable assets at end of year.....	\$1,000.. 1 624 469
Depreciation charges during year.....	\$1,000.. 1 462 061
Total rental payments.....	\$1,000.. 154 206
Buildings and other structures.....	\$1,000.. 97 630
Machinery and equipment.....	\$1,000.. 56 576
Total other expenses ⁴	\$1,000.. 345 448
Response coverage ratio ⁵	percent.. 98
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 106 919
Communications services ⁴	\$1,000.. 9 097
Legal services ⁴	\$1,000.. 3 493
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 2 165
Advertising and promotional services ⁴	\$1,000.. 3 184
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 3 939
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 7 374
Management consulting and administrative services ⁴	\$1,000.. 6 564
Taxes and license fees ⁴	\$1,000.. 28 606
All other expenses ⁴	\$1,000.. 174 106

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

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

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on 2002 Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
326160, Plastics bottle manufacturing											
All establishments	—	403	34 001	1 132 845	29 188	57 916	903 869	3 880 124	4 135 473	7 948 466	'518 545
Establishments with—											
1 to 4 employees	7	40	89	2 909	80	163	2 380	10 096	8 640	18 630	'6 109
5 to 9 employees	5	23	c	D	D	D	D	D	D	D	D
10 to 19 employees	3	31	440	14 898	393	813	12 375	60 986	55 107	115 734	'18 957
20 to 49 employees	1	78	2 589	86 223	2 169	4 584	64 118	347 181	326 956	644 251	'37 782
50 to 99 employees	—	117	8 481	281 232	7 341	15 359	219 950	992 095	1 033 399	2 001 859	'95 150
100 to 249 employees	—	96	14 313	493 187	12 136	24 673	392 543	1 750 303	2 011 614	3 744 408	'268 071
250 to 499 employees	—	13	4 271	139 705	3 693	6 941	115 201	354 093	348 040	702 578	'46 428
500 to 999 employees	—	4	2 574	75 523	2 193	2 988	60 442	261 750	146 245	410 527	'30 586
1,000 to 2,499 employees	—	1	g	D	D	D	D	D	D	D	D
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	58	292	9 458	260	532	7 800	28 485	30 422	58 907	'1 981

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

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

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
326160	Plastics bottle manufacturing	403	34 001	1 132 845	29 188	57 916	903 869	3 880 124	4 135 473	7 948 466	'518 545
3261600	Plastics bottles	403	34 001	1 132 845	29 188	57 916	903 869	3 880 124	4 135 473	7 948 466	'518 545

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[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. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments		
				Quantity	Value (\$1,000)	
326160	Plastics bottle manufacturing	2002..	N	X	X	7 950 708
		1997..	N	X	X	6 451 880
3261600	Plastics bottles	2002..	N	X	X	7 950 708
32616001	Plastics bottles	2002..	N	X	X	6 451 880
		1997..	N	X	X	7 846 731
3261600100	Plastics bottles	2002..	160	X	X	6 123 994
		1997..	183	X	X	7 846 731
3261600Y	Plastics bottles, nsk, total	2002..	N	X	X	6 123 994
3261600YWW	Plastics bottles, nsk, for nonadministrative-record establishments	2002..	N	X	X	103 977
		1997..	N	X	X	327 886
3261600YWY	Plastics bottles, nsk, for administrative-record establishments	2002..	N	X	X	45 930
		1997..	N	X	X	248 408
		2002..	N	X	X	58 047
		1997..	N	X	X	79 478

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Not applicable for this report.]

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
326160	Plastics bottle manufacturing		
0090001	Total materials	2002.. X	3 761 196
		1997.. X	2 961 703
32121909	Hardboard	2002.. X	980
		1997.. X	2 633
32500A4	Industrial inorganic chemicals (excluding inorganic pigments, plastics resins, industrial and synthetic organic chemicals, synthetic dyes, pigments, and all other chemicals and allied products)	2002.. X	D
		1997.. X	N
32513106	Inorganic pigments	2002.. X	3 917
		1997.. X	N
32521105	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc.	2002.. X	2 469 068
		1997.. X	1 791 901
325100A1	Industrial organic and synthetic organic chemicals, including plasticizers (excluding synthetic dyes, pigments, and toners)	2002.. X	D
		1997.. X	D
32513200	Synthetic dyes, pigments, lakes, and toners	2002.. X	45 114
		1997.. X	15 827
32500042	All other chemicals and allied products (excluding industrial inorganic chemicals, plastics resins, and industrial organic and synthetic organic chemicals)	2002.. X	D
		1997.. X	N
32610013	Plastics products consumed in the form of sheets, rods, tubes, film, and other shapes	2002.. X	338 359
		1997.. X	373 502
32599100	Custom compounded plastics resins (purchased)	2002.. X	62 686
		1997.. X	18 789
32210015	Paper and paperboard products (excluding paperboard boxes, containers, and corrugated paperboard)	2002.. X	32 224
		1997.. X	26 299
32221001	Paperboard containers, boxes, and corrugated paperboard	2002.. X	198 116
		1997.. X	211 451
33322000	Parts and attachments specially designed for plastics working machinery	2002.. X	80 224
		1997.. X	10 850
00999803	Spent or post-consumer plastics (purchased)	2002.. X	35 093
		1997.. X	D
00970099	All other materials and components, parts, containers, and supplies	2002.. X	199 798
		1997.. X	223 369
00971000	Materials, ingredients, containers, and supplies, nsk	2002.. X	279 124
		1997.. X	241 810

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.