

# Household Refrigerator and Home Freezer 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 <sup>1</sup>	Com- panies <sup>2</sup>	All estab- lish- ments <sup>3</sup>	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 <sup>4</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)					
335222, Household refrigerator and home freezer manufacturing .....	2002..	16	23	22 775	796 156	19 894	37 210	645 855	2 045 663	3 199 941	5 332 340	148 572
	2001..	N	N	25 780	910 647	22 614	43 526	741 812	1 981 379	3 433 474	5 591 578	197 013
	2000..	N	N	27 428	978 161	24 117	45 854	787 141	2 349 801	3 643 179	5 863 704	247 994
	1999..	N	N	25 683	873 720	22 576	44 103	703 849	2 585 694	3 471 175	6 038 537	165 969
	1998..	N	N	24 921	837 302	22 058	42 406	689 198	2 035 926	3 182 074	5 188 241	108 540
	1997..	21	27	24 597	801 717	21 513	41 152	648 064	1 941 186	2 943 884	4 887 364	92 679

<sup>1</sup>Statistics 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).

<sup>2</sup>For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

<sup>3</sup>Includes establishments with payroll at any time during the year.

<sup>4</sup>Number 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**

[Not applicable for this report]

**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
<b>335222, Household refrigerator and home freezer manufacturing</b>	
Companies <sup>1</sup> .....	number.. 16
All establishments <sup>2</sup> .....	number.. 23
Establishments with 1 to 19 employees .....	number.. 4
Establishments with 20 to 99 employees .....	number.. -
Establishments with 100 employees or more .....	number.. 19
All employees <sup>3</sup> .....	number.. 22 775
Total compensation .....	\$1,000.. 1 124 326
Annual payroll .....	\$1,000.. 796 156
Total fringe benefits .....	\$1,000.. 328 170
Production workers, average for year .....	number.. 19 894
Production workers on March 12 .....	number.. 20 505
Production workers on May 12 .....	number.. 20 378
Production workers on August 12 .....	number.. 19 593
Production workers on November 12 .....	number.. 19 097
Production worker hours .....	1,000.. 37 210
Production worker wages .....	\$1,000.. 645 855
Total cost of materials .....	\$1,000.. 3 199 941
Materials, parts, containers, packaging, etc., used .....	\$1,000.. 3 069 386
Resales .....	\$1,000.. D
Purchased fuels .....	\$1,000.. 8 079
Purchased electricity .....	\$1,000.. 27 017
Contract work .....	\$1,000.. D
Quantity of electricity purchased for heat and power .....	1,000 kWh.. 651 914
Quantity of electricity generated less sold for heat and power .....	1,000 kWh.. -
Total value of shipments .....	\$1,000.. 5 332 340
Primary products value of shipments .....	\$1,000.. 5 040 680
Secondary products value of shipments .....	\$1,000.. D
Total miscellaneous receipts .....	\$1,000.. D
Value of resales .....	\$1,000.. D
Contract receipts .....	\$1,000.. -
Other miscellaneous receipts .....	\$1,000.. D
Primary products specialization ratio .....	percent.. D
Value of primary products shipments made in all industries .....	\$1,000.. 5 140 547
Value of primary products shipments made in this industry .....	\$1,000.. 5 040 680
Value of primary products shipments made in other industries .....	\$1,000.. 99 867
Coverage ratio .....	percent.. 98
Value added .....	\$1,000.. 2 045 663
Total inventories, beginning of year .....	\$1,000.. 460 892
Finished goods inventories .....	\$1,000.. 292 806
Work-in-process inventories .....	\$1,000.. 27 196
Materials and supplies inventories .....	\$1,000.. 140 890
Total inventories, end of year .....	\$1,000.. 340 686
Finished goods inventories .....	\$1,000.. 212 055
Work-in-process inventories .....	\$1,000.. 21 211
Materials and supplies inventories .....	\$1,000.. 107 420
Gross value of depreciable assets (acquisition costs) at beginning of year .....	\$1,000.. '2 450 318
Total capital expenditures (new and used) .....	\$1,000.. '148 572
Buildings and other structures (new and used) .....	\$1,000.. '8 556
Machinery and equipment (new and used) .....	\$1,000.. '140 016
Automobiles, trucks, etc., for highway use .....	\$1,000.. '1 024
Computers and peripheral data processing equipment .....	\$1,000.. '2 215
All other expenditures for machinery and equipment .....	\$1,000.. '136 777
Total retirements .....	\$1,000.. '162 843
Gross value of depreciable assets at end of year .....	\$1,000.. '2 436 047
Depreciation charges during year .....	\$1,000.. '162 722
Total rental payments .....	\$1,000.. D
Buildings and other structures .....	\$1,000.. D
Machinery and equipment .....	\$1,000.. 7 190
Total other expenses <sup>4</sup> .....	\$1,000.. 167 128
Response coverage ratio <sup>5</sup> .....	percent.. 95
Repair and maintenance services of buildings and/or machinery <sup>4</sup> .....	\$1,000.. 24 497
Communications services <sup>4</sup> .....	\$1,000.. 1 766
Legal services <sup>4</sup> .....	\$1,000.. 1 758
Accounting, auditing, and bookkeeping services <sup>4</sup> .....	\$1,000.. 191
Advertising and promotional services <sup>4</sup> .....	\$1,000.. 6 216
Expensed computer hardware and supplies and purchased computer services <sup>4</sup> .....	\$1,000.. 1 783
Refuse removal (including hazardous waste) services <sup>4</sup> .....	\$1,000.. 2 221
Management consulting and administrative services <sup>4</sup> .....	\$1,000.. 7 623
Taxes and license fees <sup>4</sup> .....	\$1,000.. 8 784
All other expenses <sup>4</sup> .....	\$1,000.. 112 289

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

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Number 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.

<sup>4</sup>Based on Annual Survey of Manufactures (ASM) sample data.

<sup>5</sup>A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those 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 <sup>1</sup>	All establishments <sup>2</sup>	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 <sup>3</sup>	Payroll (\$1,000)	Number <sup>3</sup>	Hours (1,000)	Wages (\$1,000)				
335222, Household refrigerator and home freezer manufacturing											
All establishments .....	—	23	22 775	796 156	19 894	37 210	645 855	2 045 663	3 199 941	5 332 340	'148 572
Establishments with—											
1 to 4 employees .....	9	2	a	D	D	D	D	D	D	D	D
5 to 9 employees .....	9	1	a	D	D	D	D	D	D	D	D
10 to 19 employees .....	9	1	a	D	D	D	D	D	D	D	D
20 to 49 employees .....	—	—	—	—	—	—	—	—	—	—	—
50 to 99 employees .....	—	—	—	—	—	—	—	—	—	—	—
100 to 249 employees .....	1	6	1 181	33 582	880	1 714	19 815	132 624	172 684	305 962	'5 360
250 to 499 employees .....	—	3	g	D	D	D	D	D	D	D	D
500 to 999 employees .....	—	1	f	D	D	D	D	D	D	D	D
1,000 to 2,499 employees .....	—	8	15 949	563 658	14 037	25 498	465 672	1 199 352	2 152 173	3 406 286	113 316
2,500 employees or more .....	—	1	h	D	D	D	D	D	D	D	D
Administrative records <sup>4</sup> .....	9	3	15	496	14	24	424	1 194	1 677	2 871	'46

<sup>1</sup>Some 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.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Number 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.

<sup>4</sup>Some 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 <sup>1</sup>	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 <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				
335222	Household refrigerator and home freezer manufacturing .....	23	22 775	796 156	19 894	37 210	645 855	2 045 663	3 199 941	5 332 340	148 572
3352221	Household refrigerators, including combination refrigerator-freezers ..	17	20 621	731 919	17 930	33 518	590 198	1 883 069	2 863 951	4 837 048	136 954
3352222	Household food freezers, complete units .....	2	g	D	D	D	D	D	D	D	D
3352223	Parts and attachments for household refrigerators and freezers .....	2	a	D	D	D	D	D	D	D	D

<sup>1</sup>Includes establishments with payroll at any time during the year.

<sup>2</sup>Number 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)
335222	Household refrigerator and home freezer manufacturing .....	2002.. N 1997.. N	X X	X X	5 140 547 4 828 356
3352221	Household refrigerators, including combination refrigerator-freezers .....	2002.. N 1997.. N	X X	X X	4 632 516 4 430 327
33522211	Household refrigerators, including combination refrigerator-freezers .....	2002.. N 1997.. N	X X	X X	4 632 516 4 430 327
3352221100	Household refrigerators, including combination refrigerator-freezers <sup>1</sup> .....	2002.. 13 1997.. 19	X X	X X	4 632 516 4 430 327
3352222	Household food freezers, complete units .....	2002.. N 1997.. N	X X	X X	D 330 920
33522221	Household food freezers, complete units .....	2002.. N 1997.. N	X X	X X	D 330 920
3352222100	Household food freezers, complete units <sup>1</sup> .....	2002.. 6 1997.. 7	X X	X X	D 330 920
3352223	Parts and attachments for household refrigerators and freezers .....	2002.. N 1997.. N	X X	X X	D 61 927
33522231	Parts and attachments for household refrigerators and freezers .....	2002.. N 1997.. N	X X	X X	D 61 927
3352223100	Parts and attachments for household refrigerators and freezers <sup>1</sup> .....	2002.. 13 1997.. 11	X X	X X	D 61 927
335222W	Household refrigerator and home freezer manufacturing, nsk, total .....	2002.. N 1997.. N	X X	X X	435 5 182
335222WY	Household refrigerator and home freezer manufacturing, nsk, total .....	2002.. N 1997.. N	X X	X X	435 5 182
335222WYWW	Household refrigerator and home freezer manufacturing, nsk, for nonadministrative-record establishments .....	2002.. N 1997.. N	X X	X X	160 -
335222WYWY	Household refrigerator and home freezer manufacturing, nsk, for administrative-record establishments .....	2002.. N 1997.. N	X X	X X	275 5 182

<sup>1</sup>For additional detail, see Current Industrial Report MA335F, Major Household Appliances.

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)
335222	Household refrigerator and home freezer manufacturing		
0090001	Total materials .....	2002.. X	3 069 386
		1997.. X	2 860 015
332000AC	Metal stampings .....	2002.. X	112 128
		1997.. X	D
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....	2002.. X	25 718
		1997.. X	22 066
33200025	All other fabricated metal products (excluding forgings, castings, wire racks, grills, springs, other fabricated nonelectric wire products, bolts, nuts, screws, rivets, and screw machine products) .....	2002.. X	62 417
		1997.. X	N
33151001	Iron and steel castings (rough and semifinished) .....	2002.. X	D
		1997.. X	7 439
33152005	Aluminum and aluminum-base alloy castings (rough and semifinished) .....	2002.. X	11 700
		1997.. X	7 287
33152003	Other nonferrous metal castings, rough and semifinished (including aluminum and aluminum-base alloy) .....	2002.. X	6 676
		1997.. X	D
33120007	Steel bars, bar shapes, and plate (excluding castings, forgings, and fabricated metal products) .....	2002.. X	D
		1997.. X	D
33120016	Steel sheet and strip (including tinplate) .....	2002.. X	209 506
		1997.. X	N
33120033	All other steel shapes and forms (excluding castings, forgings, and fabricated metal products) .....	2002.. X	184 127
		1997.. X	N
33100038	Aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....	2002.. X	D
		1997.. X	N
33100077	Other nonferrous shapes and forms (excluding castings, forgings, and fabricated metal products) .....	2002.. X	44 923
		1997.. X	N
33100087	Nonferrous wire and cable (including magnet wire, bare or insulated wire, etc.) .....	2002.. X	44 491
		1997.. X	N
33531219	Fractional horsepower electric motors and generators (less than 1 hp), including timing motors .....	2002.. X	222 371
		1997.. X	N
32220017	Paper and paperboard containers (including shipping sacks and other paper packaging supplies) .....	2002.. X	119 050
		1997.. X	77 199
001900B1	Electrical transmission, distribution, and control equipment .....	2002.. X	161 071
		1997.. X	87 843
33593101	Current-carrying wiring devices .....	2002.. X	51 143
		1997.. X	87 051
33451809	Timing mechanisms (excluding microprocessors) .....	2002.. X	20 574
		1997.. X	N
33451200	Automatic temperature controls (thermostats, regulators, etc.) .....	2002.. X	42 915
		1997.. X	64 949
32551002	Paints, varnishes, stains, lacquers, shellacs, japans, enamels, and allied product .....	2002.. X	33 862
		1997.. X	N
32600017	Fabricated rubber products (excluding tires, tubes, hose, belting, and gaskets) .....	2002.. X	23 658
		1997.. X	N
32622001	Rubber and plastics hose and belting .....	2002.. X	29 912
		1997.. X	23 490
32610013	Plastics products consumed in the form of sheets, rods, tubes, film, and other shapes .....	2002.. X	525 885
		1997.. X	173 392
32521105	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc. ....	2002.. X	222 627
		1997.. X	156 821
33100095	Complete flexible cord sets .....	2002.. X	27 370
		1997.. X	N
001900B7	Resistors, capacitors, transformers, electron tubes, semiconductors, and other electronic components .....	2002.. X	83 857
		1997.. X	N
32799301	Mineral wool insulation (fibrous glass, rock wool, etc.) .....	2002.. X	6 602
		1997.. X	55 703
00970099	All other materials and components, parts, containers, and supplies .....	2002.. X	653 633
		1997.. X	1 719 580
00971000	Materials, ingredients, containers, and supplies, nsk .....	2002.. X	76 934
		1997.. X	232 216

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.