

Iron Foundries: 2002

Issued December 2004

EC02-311-331511 (RV)

2002 Economic Census

Manufacturing

Industry Series



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U.S. Department of Commerce
Economics and Statistics Administration
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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)				
331511, Iron foundries	530	619	66 513	2 710 018	55 182	116 281	2 064 847	6 205 191	4 025 287	10 216 554	717 078
2002..	N	N	73 680	3 115 479	61 544	128 343	2 407 052	6 022 528	4 791 399	10 810 221	599 935
2001..	N	N	80 233	3 388 118	67 186	143 061	2 657 235	7 367 171	5 057 240	12 402 877	776 297
1999..	N	N	82 711	3 348 621	68 963	148 342	2 598 517	7 354 541	4 913 084	12 260 295	511 039
1998..	N	N	80 456	3 185 121	67 615	144 684	2 474 145	7 008 027	4 918 438	11 901 857	517 131
1997..	602	693	85 429	3 211 357	70 950	153 103	2 476 238	7 043 449	5 144 588	12 187 267	508 271

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	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)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
331511, Iron foundries												
United States.....	—	619	358	66 513	2 710 018	55 182	116 281	2 064 847	6 205 191	4 025 287	10 216 554	'717 078
Alabama.....	—	29	24	6 027	265 845	4 723	11 111	183 871	519 633	468 123	962 233	'130 664
California.....	—	42	16	1 540	53 523	1 308	2 951	39 257	116 197	81 224	216 137	'1 986
Florida.....	1	9	1	256	10 252	196	466	6 430	26 899	18 852	45 772	'1 053
Georgia.....	—	11	5	1 185	44 963	1 032	2 014	35 036	95 309	79 761	176 766	'563
Illinois.....	—	34	19	2 602	108 484	2 024	4 137	74 368	231 813	187 322	429 842	'24 253
Indiana.....	—	40	33	7 400	339 472	6 198	13 464	270 864	757 293	475 292	1 228 278	'56 222
Louisiana.....	1	7	1	109	3 985	102	234	3 633	9 256	4 078	13 325	'142
Michigan.....	—	50	31	5 188	226 602	4 100	8 463	162 783	538 876	379 176	915 514	'125 071
Minnesota.....	—	17	10	1 144	41 465	930	2 100	30 332	98 180	69 077	166 045	'3 448
New Jersey.....	2	11	6	1 533	67 738	1 170	2 566	47 623	180 122	155 881	334 676	'14 266
North Carolina.....	—	9	6	916	39 598	776	1 198	30 618	121 624	51 054	170 342	'2 491
Ohio.....	—	75	41	11 531	508 840	10 074	16 575	425 224	1 087 467	574 831	1 655 744	'199 554
Pennsylvania.....	2	52	34	4 433	151 774	3 704	7 276	113 811	312 523	225 439	540 800	'12 330
Texas.....	—	28	15	3 457	131 103	2 908	6 757	99 291	318 659	188 991	497 856	'50 140
Wisconsin.....	—	38	33	8 286	325 236	7 013	15 637	253 744	822 273	557 020	1 377 232	'59 789

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
331511, Iron foundries	
Companies ¹	number.. 530
All establishments ²	number.. 619
Establishments with 1 to 19 employees	number.. 261
Establishments with 20 to 99 employees	number.. 202
Establishments with 100 employees or more	number.. 156
All employees ³	number.. 66 513
Total compensation	\$1,000.. 3 601 942
Annual payroll	\$1,000.. 2 710 018
Total fringe benefits	\$1,000.. 891 924
Production workers, average for year	number.. 55 182
Production workers on March 12	number.. 55 338
Production workers on May 12	number.. 55 436
Production workers on August 12	number.. 55 013
Production workers on November 12	number.. 54 830
Production worker hours .....	..1,000.. 116 281
Production worker wages	\$1,000.. 2 064 847
Total cost of materials	\$1,000.. 4 025 287
Materials, parts, containers, packaging, etc., used	\$1,000.. 2 983 390
Resales	\$1,000.. 224 577
Purchased fuels	\$1,000.. 214 211
Purchased electricity	\$1,000.. 373 834
Contract work	\$1,000.. 229 275
Quantity of electricity purchased for heat and power	1,000 kWh.. 8 077 150
Quantity of electricity generated less sold for heat and power	1,000 kWh.. -
Total value of shipments	\$1,000.. 10 216 554
Primary products value of shipments	\$1,000.. 9 635 738
Secondary products value of shipments	\$1,000.. 304 046
Total miscellaneous receipts	\$1,000.. 276 770
Value of resales	\$1,000.. 248 999
Contract receipts	\$1,000.. 7 472
Other miscellaneous receipts	\$1,000.. 20 299
Primary products specialization ratio	percent.. 97
Value of primary products shipments made in all industries	\$1,000.. 9 948 049
Value of primary products shipments made in this industry	\$1,000.. 9 635 738
Value of primary products shipments made in other industries	\$1,000.. 312 311
Coverage ratio	percent.. 97
Value added	\$1,000.. 6 205 191
Total inventories, beginning of year	\$1,000.. 954 657
Finished goods inventories	\$1,000.. 468 929
Work-in-process inventories	\$1,000.. 165 593
Materials and supplies inventories	\$1,000.. 320 135
Total inventories, end of year	\$1,000.. 946 880
Finished goods inventories	\$1,000.. 493 868
Work-in-process inventories	\$1,000.. 154 578
Materials and supplies inventories	\$1,000.. 298 434
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 7 445 981
Total capital expenditures (new and used)	\$1,000.. 7 717 078
Buildings and other structures (new and used)	\$1,000.. 65 910
Machinery and equipment (new and used)	\$1,000.. 651 168
Automobiles, trucks, etc., for highway use	\$1,000.. 12 795
Computers and peripheral data processing equipment	\$1,000.. 122 337
All other expenditures for machinery and equipment	\$1,000.. 616 036
Total retirements	\$1,000.. 1 335 929
Gross value of depreciable assets at end of year	\$1,000.. 7 827 130
Depreciation charges during year	\$1,000.. 461 283
Total rental payments	\$1,000.. 42 629
Buildings and other structures	\$1,000.. 15 258
Machinery and equipment	\$1,000.. 27 371
Total other expenses ⁴	\$1,000.. 861 796
Response coverage ratio ⁵	percent.. 89
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 284 174
Communications services ⁴	\$1,000.. 10 354
Legal services ⁴	\$1,000.. 10 555
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 6 993
Advertising and promotional services ⁴	\$1,000.. 6 650
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 7 658
Refuse removal (including hazardous waste) services ⁴	\$1,000.. D
Management consulting and administrative services ⁴	\$1,000.. 23 274
Taxes and license fees ⁴	\$1,000.. 40 322
All other expenses ⁴	\$1,000.. D

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)				
331511, Iron foundries											
All establishments	—	619	66 513	2 710 018	55 182	116 281	2 064 847	6 205 191	4 025 287	10 216 554	'717 078
Establishments with—											
1 to 4 employees	9	146	319	11 576	248	503	8 520	22 032	15 356	37 876	'848
5 to 9 employees	8	47	e	D	D	D	D	D	D	D	D
10 to 19 employees	6	68	934	37 097	739	1 738	26 479	79 547	46 829	127 352	'12 002
20 to 49 employees	2	114	3 785	122 784	3 006	7 293	86 675	245 134	132 493	383 617	'10 764
50 to 99 employees	1	88	6 217	205 709	5 116	11 550	149 534	447 465	275 727	726 007	'25 583
100 to 249 employees	—	87	13 951	514 843	11 520	26 971	379 947	1 146 560	689 629	1 849 267	'67 916
250 to 499 employees	—	47	16 051	638 030	12 960	27 688	463 052	1 477 927	1 206 891	2 672 875	'120 122
500 to 999 employees	—	15	9 859	424 596	8 392	17 640	335 293	1 070 317	755 015	1 827 561	'66 855
1,000 to 2,499 employees	—	5	7 537	378 911	6 105	13 309	286 173	942 209	503 107	1 418 613	'154 077
2,500 employees or more	—	2	i	D	D	D	D	D	D	D	D
Administrative records ⁴	9	199	834	32 194	677	1 394	24 316	64 360	45 150	109 501	'2 499

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)				
331511	Iron foundries	619	66 513	2 710 018	55 182	116 281	2 064 847	6 205 191	4 025 287	10 216 554	'717 078
3315111	Ductile iron pressure pipe and fittings	29	8 780	393 358	6 764	15 859	271 125	898 563	788 856	1 669 649	'195 295
3315113	Other ductile iron castings	116	19 265	718 420	15 858	36 369	535 059	1 678 689	1 205 375	2 888 953	'90 441
3315115	Cast iron pressure pipe and fittings	3	99	2 894	84	184	1 887	7 237	3 971	11 199	'211
3315117	Cast iron soil pipe and fittings, all sizes	6	2 350	101 903	1 953	4 184	78 286	320 086	157 245	468 736	25 625
3315119	Other gray iron castings	191	32 245	1 340 946	27 459	53 184	1 063 966	3 020 628	1 689 037	4 713 462	'393 514
331511A	Standard malleable iron castings	11	f	D	D	D	D	D	D	D	D
331511C	Pearlitic malleable iron castings	2	e	D	D	D	D	D	D	D	D
331511E	Molds and stools for heavy steel ingots	7	421	15 046	343	946	11 048	29 108	18 885	48 319	'1 335

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)
331511	Iron foundries	2002.. N 1997.. N	X X	X X	9 948 049 11 875 995
3315111	Ductile iron pressure pipe and fittings	2002.. N 1997.. N	X X	X X	1 562 379 1 542 695
33151112	Ductile iron pressure pipe, less than 14 in. (inside diameter)	2002.. N 1997.. N	X X	X X	665 631 895 317
331511201	Ductile iron pressure pipe, less than 14 in. (inside diameter) 1 1,000 s tons.	2002.. 12 1997.. 16	X X	P1 163.1 1 476.3	665 631 895 317
33151111	Ductile iron pressure pipes and iron-fittings, all sizes	2002.. N 1997.. N	X X	X X	895 489 647 378
331511106	Ductile iron pressure pipe, 14 in. or more (inside diameter) 1 1,000 s tons.	2002.. 11 1997.. 9	X X	879.0 P449.1	524 949 279 317
331511111	Ductile iron fittings, less than 14 in. (inside diameter) ¹ 1,000 s tons.	2002.. 13 1997.. 23	X X	S S	254 128 286 150
331511116	Ductile iron fittings, 14 in. or more (inside diameter) ¹ 1,000 s tons.	2002.. 14 1997.. 13	X X	q40.6 P40.3	116 412 81 911
3315111Y	Ductile iron pressure pipe and fittings, nsk	2002.. N 1997.. N	X X	X -	1 259 -
3315111YWV	Ductile iron pressure pipe and fittings, nsk	2002.. N 1997.. N	X X	X X	1 259 -
3315113	Other ductile iron castings	2002.. N 1997.. N	X X	X X	2 948 435 3 471 990
33151131	Other ductile iron castings for automotive uses	2002.. N 1997.. N	X X	X X	1 928 882 1 620 369
3315113101	Other ductile iron castings for automotive uses ¹ 1,000 s tons.	2002.. 50 1997.. 46	X X	q1 400.3 P1 227.8	1 928 882 1 620 369
33151132	Other ductile iron castings for all other uses	2002.. N 1997.. N	X X	X X	1 013 275 1 851 621
3315113206	Other ductile iron castings for construction and utility uses ¹ 1,000 s tons.	2002.. 57 1997.. 57	X X	q130.7 P104.3	173 027 167 428
3315113211	Other ductile iron castings for valve uses ¹ 1,000 s tons.	2002.. 45 1997.. 47	X X	S S	99 478 138 719
3315113216	Other ductile iron castings for machinery uses	2002.. 84 1997.. 112	X X	S P273.6	303 597 412 546
3315113221	Other ductile iron castings for all other uses, including electric and electronic equipment uses, heat-resistant parts (including coke oven door parts) ¹ 1,000 s tons.	2002.. 88 1997.. 128	X X	S S	437 173 1 132 928
3315113Y	Other ductile iron castings, nsk	2002.. N 1997.. N	X X	X X	6 278 -
3315113YWV	Other ductile iron castings, nsk	2002.. N 1997.. N	X X	X X	6 278 -
3315115	Cast iron pressure pipe and fittings	2002.. N 1997.. N	X X	X X	35 398 63 802
33151151	Cast iron pressure pipe fittings, all sizes	2002.. N 1997.. N	X X	X X	34 840 63 802
3315115101	Cast iron pressure pipe, less than 14 in. (inside diameter)	2002.. 6 1997.. 12	X X	X X	13 459 26 139
3315115106	Cast iron pressure pipe, 14 in. or more (inside diameter)	2002.. 4 1997.. 6	X X	X X	3 105 3 175
3315115111	Cast iron pressure pipe fittings, less than 14 in. (inside diameter) 1,000 s tons.	2002.. 10 1997.. 18	X X	q6.9 P17.9	11 065 28 994
3315115116	Cast iron pressure pipe fittings, 14 in. or more (inside diameter) 1,000 s tons.	2002.. 9 1997.. 9	X X	8.2 S	7 211 5 494
3315115Y	Cast iron pressure pipe and fittings, nsk	2002.. N 1997.. N	X X	X X	558 -
3315115YWV	Cast iron pressure pipe and fittings, nsk	2002.. N 1997.. N	X X	X X	558 -
3315117	Cast iron soil pipe and fittings, all sizes	2002.. N 1997.. N	X X	X X	307 410 254 152
33151171	Cast iron soil pipe fittings, all sizes	2002.. N 1997.. N	X X	X X	307 410 254 152
3315117101	Cast iron soil pipe, 3 in. or less (inside diameter) ¹ 1,000 s tons.	2002.. 4 1997.. 3	X X	D D	D D
3315117106	Cast iron soil pipe, more than 3 in. up to but not including 5 in. (inside diameter) ¹ 1,000 s tons.	2002.. 6 1997.. 4	X X	D D	D D
3315117111	Cast iron soil pipe, 5 in. or more (inside diameter) ¹ 1,000 s tons.	2002.. 5 1997.. 6	X X	D S	D 76 663
3315117116	Cast iron soil pipe fittings (including special fittings), 3 in. or less (inside diameter) ¹ 1,000 s tons.	2002.. 4 1997.. 5	X X	D P11.0	D 16 427
3315117121	Cast iron soil pipe fittings (including special fittings), more than 3 in. up to but not including 5 in. (inside diameter) ¹ 1,000 s tons.	2002.. 4 1997.. 7	X X	q18.7 S	28 478 64 418
3315117126	Cast iron soil pipe fittings (including special fittings), 5 in. or more (inside diameter) ¹ 1,000 s tons.	2002.. 6 1997.. 6	X X	36.1 S	68 894 18 554
3315117Y	Cast iron soil pipe and fittings, all sizes, nsk	2002.. N 1997.. N	X X	X X	- -
3315117YWV	Cast iron soil pipe and fittings, all sizes, nsk	2002.. N 1997.. N	X X	X X	- -
3315119	Other gray iron castings	2002.. N 1997.. N	X X	X X	4 643 340 6 055 346
33151192	Other gray iron castings for automotive uses	2002.. N 1997.. N	X X	X X	2 469 775 2 510 531
3315119206	Other gray iron castings for automotive uses 1,000 s tons.	2002.. 56 1997.. 53	X X	S S	2 469 775 2 510 531
33151191	Other gray iron castings for all other uses	2002.. N 1997.. N	X X	X X	2 171 014 3 544 815
3315119101	Gray iron rolls for rolling mills ¹ 1,000 s tons.	2002.. 11 1997.. 11	X X	S S	141 972 167 716
3315119111	Other gray iron castings for construction and utility uses 1,000 s tons.	2002.. 84 1997.. 84	X X	q610.2 q691.2	752 658 871 455

See footnotes at end of table.

Table 6a. Products Statistics: 2002 and 1997—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. 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)
331511	Iron foundries—Con.				
3315119	Other gray iron castings—Con.				
33151191	Other gray iron castings for all other uses—Con.				
3315119116	Other gray iron castings for all other uses ¹ 1,000 s tons	2002 174	X	S	1 276 384
		1997 274	X	P2 313.1	2 505 644
3315119Y	Other gray iron castings, nsk	2002 N	X	X	2 551
		1997 N	X	X	—
3315119YVW	Other gray iron castings, nsk	2002 N	X	X	2 551
		1997 N	X	X	—
331511A	Standard malleable iron castings	2002 N	X	X	91 540
		1997 N	X	X	205 659
331511A1	Standard malleable iron castings	2002 N	X	X	91 540
		1997 N	X	X	205 659
331511A100	Standard malleable iron castings ¹ 1,000 s tons	2002 22	X	S	91 540
		1997 20	X	S	205 659
331511C	Pearlitic malleable iron castings	2002 N	X	X	130 962
		1997 N	X	X	132 615
331511C3	Pearlitic malleable iron castings	2002 N	X	X	130 962
		1997 N	X	X	132 615
331511C300	Pearlitic malleable iron castings ¹ 1,000 s tons	2002 9	X	64.6	130 962
		1997 11	X	S	132 615
331511E	Molds and stools for heavy steel ingots	2002 N	X	X	42 664
		1997 N	X	X	54 305
331511E2	Molds and stools for heavy steel ingots	2002 N	X	X	42 664
		1997 N	X	X	54 305
331511E200	Molds and stools for heavy steel ingots ¹ 1,000 s tons	2002 10	X	P55.6	42 664
		1997 13	X	S	54 305
331511W	Iron foundries, nsk, total	2002 N	X	X	185 921
		1997 N	X	X	95 431
331511WY	Iron foundries, nsk, total	2002 N	X	X	185 921
		1997 N	X	X	95 431
331511WYVW	Iron foundries, nsk, for nonadministrative-record establishments	2002 N	X	X	81 970
		1997 N	X	X	3 199
331511WYVY	Iron foundries, nsk, for administrative-record establishments	2002 N	X	X	103 951
		1997 N	X	X	92 232

¹For additional detail, see Current Industrial Report MA331A, Iron and Steel Castings.

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

[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 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 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic 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]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3315111	Ductile iron pressure pipe and fittings	
	United States	2002.. 1 562 379
	1997..	1 542 695
	Alabama	2002.. 649 635
	1997..	701 798
	Michigan	2002.. 3 158
1997..	N	
New Jersey	2002.. 214 097	
1997..	190 486	
3315113	Other ductile iron castings	
	United States	2002.. 2 948 435
	1997..	3 471 990
	Alabama	2002.. 150 468
	1997..	208 741
	California	2002.. 45 970
	1997..	56 715
	Illinois	2002.. 175 780
	1997..	227 668
	Indiana	2002.. 323 121
	1997..	199 152
	Michigan	2002.. 241 066
	1997..	209 825
	Minnesota	2002.. 108 226
	1997..	83 307
	Ohio	2002.. 360 408
1997..	665 649	
Pennsylvania	2002.. 171 292	
1997..	228 513	
Texas	2002.. 123 340	
1997..	118 365	
Wisconsin	2002.. 652 195	
1997..	678 359	
3315115	Cast iron pressure pipe and fittings	
	United States	2002.. 35 398
	1997..	63 802
	Michigan	2002.. 6 458
	1997..	12 349
Wisconsin	2002.. 4 464	
1997..	N	
3315117	Cast iron soil pipe and fittings, all sizes	
	United States	2002.. 307 410
1997..	254 152	
3315119	Other gray iron castings	
	United States	2002.. 4 643 340
	1997..	6 055 346
	Alabama	2002.. 31 650
	1997..	46 256
	California	2002.. 47 066
	1997..	67 094
	Georgia	2002.. 18 268
	1997..	91 982
	Illinois	2002.. 222 001
	1997..	325 333
	Indiana	2002.. 856 517
	1997..	921 913
	Michigan	2002.. 674 100
	1997..	1 004 607
	Minnesota	2002.. 38 955
1997..	47 405	
Ohio	2002.. 1 107 568	
1997..	1 294 048	
Pennsylvania	2002.. 185 588	
1997..	271 238	
Texas	2002.. 101 248	
1997..	180 729	
Wisconsin	2002.. 638 642	
1997..	796 123	
331511A	Standard malleable iron castings	
	United States	2002.. 91 540
	1997..	205 659
Wisconsin	2002.. 18 288	
1997..	21 241	
331511C	Pearlitic malleable iron castings	
	United States	2002.. 130 962
1997..	132 615	
331511E	Molds and stools for heavy steel ingots	
	United States	2002.. 42 664
1997..	54 305	

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 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)
331511	Iron foundries		
0090001	Total materials	X	2 983 390
	.....2002..	X	4 103 483
	.....1997..		
33120044	Pig iron shapes and forms (excluding silvery iron, castings, forgings, and fabricated metal products)	X	210 466
	.....2002..	X	N
	.....1997..	X	N
33111204	Ferrochromium shapes and forms (excluding castings, forgings, and fabricated metal products)	X	36 249
	.....2002..	X	N
	.....1997..	X	N
33111202	Ferromanganese, silicomanganese, and manganese shapes and forms (excluding castings, forgings, and fabricated metal products)	X	45 324
	.....2002..	X	N
	.....1997..		
33111206	Ferrosilicon (more than 8 percent silicon) shapes and forms (excluding castings, forgings, and fabricated metal products)	X	196 921
	.....2002..	X	N
	.....1997..	X	N
33100013	All other ferrous shapes and forms (excluding castings, forgings, and fabricated metal products)	X	124 193
	.....2002..	X	289 588
	.....1997..	X	
33141924	Nickel and nickel-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products)	X	26 607
	.....2002..	X	N
	.....1997..		
33141947	Cobalt-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products)	X	2 324
	.....2002..	X	D
	.....1997..	X	
33141905	All other nonferrous shapes and forms (excluding castings, forgings, and fabricated metal products)	X	57 069
	.....2002..	X	D
	.....1997..	X	
00190027	Iron and steel scrap (excluding home scrap)	X	921 139
	.....2002..	X	N
	.....1997..	X	N
00190082	All other purchased scrap, excluding home scrap	X	46 796
	.....2002..	X	135 050
	.....1997..	X	
32712400	Clay refractories	X	36 555
	.....2002..	X	41 386
	.....1997..	X	
32791001	Grinding wheels and other abrasive products, excluding industrial diamonds	X	25 446
	.....2002..	X	43 967
	.....1997..	X	
32712500	Nonclay refractories	X	13 155
	.....2002..	X	36 763
	.....1997..	X	
32700009	All other stone, clay, glass, and concrete products	X	18 725
	.....2002..	X	14 618
	.....1997..	X	
33299700	Industrial patterns	X	41 130
	.....2002..	X	48 998
	.....1997..	X	
33350003	Industrial dies, molds, jigs, and fixtures	X	21 863
	.....2002..	X	20 207
	.....1997..	X	
001900A5	All other industrial and commercial machinery and computer equipment	X	31 827
	.....2002..	X	39 103
	.....1997..	X	
21232005	Sand	X	166 683
	.....2002..	X	213 801
	.....1997..	X	
00970099	All other materials and components, parts, containers, and supplies	X	887 363
	.....2002..	X	N
	.....1997..	X	N
00971000	Materials, ingredients, containers, and supplies, nsk	X	73 555
	.....2002..	X	63 916
	.....1997..	X	

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.