

**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)				
334511, Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing . . . . 2002..	505	653	155 497	9 715 408	52 367	96 206	2 515 057	22 930 430	10 511 137	33 657 615	'865 155
2001..	N	N	173 336	9 800 646	57 934	108 448	2 538 112	23 205 510	11 911 883	35 429 656	1 112 116
2000..	N	N	179 659	9 751 693	64 882	119 339	2 778 986	21 440 486	11 359 786	33 081 818	1 022 159
1999..	N	N	172 452	9 571 931	60 544	116 724	2 583 897	22 107 624	10 421 589	32 486 008	1 011 519
1998..	N	N	188 299	10 257 901	69 485	134 441	2 910 566	23 941 705	9 192 213	33 265 406	1 158 007
1997..	579	689	188 325	9 977 629	65 102	126 006	2 627 879	23 155 326	9 051 326	32 661 495	1 021 048

<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**

[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 <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)
		Total	With 20 employees or more	Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>3</sup>	Hours (1,000)	Wages (\$1,000)				
334511, Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing												
United States .....	-	653	305	155 497	9 715 408	52 367	96 206	2 515 057	22 930 430	10 511 137	33 657 615	'865 155
Alabama .....	2	10	4	582	26 021	213	384	5 730	73 222	43 111	116 796	'2 754
Arizona .....	-	22	11	4 870	292 893	1 120	2 202	48 518	887 032	448 419	1 358 942	'34 575
California .....	-	124	63	25 012	1 754 209	7 442	13 946	378 786	4 529 123	2 024 357	6 667 523	'129 577
Connecticut .....	-	16	6	2 592	157 853	921	1 758	42 026	236 103	157 494	376 133	'7 465
Florida .....	-	60	26	16 034	943 794	3 382	6 366	135 437	2 508 454	1 055 271	3 565 546	'59 503
Indiana .....	-	6	3	348	13 153	204	364	5 044	26 518	33 164	70 734	'434
Kansas .....	-	13	8	2 372	107 759	1 258	2 224	39 458	364 095	381 404	733 914	'13 524
Massachusetts .....	-	43	18	11 853	793 687	3 356	5 893	149 210	2 253 783	1 024 660	3 225 844	'58 725
Michigan .....	1	15	9	2 032	126 998	1 275	2 958	78 686	251 831	80 491	328 226	'30 934
New Jersey .....	-	32	12	8 929	618 678	6 004	11 280	395 769	1 240 511	775 326	2 019 047	'51 959
New York .....	-	33	11	3 975	255 673	1 659	3 096	102 505	648 738	180 623	816 362	'40 386
Oregon .....	-	10	6	629	39 352	291	619	10 897	95 761	56 781	151 709	'3 648
Pennsylvania .....	1	26	13	2 217	109 519	1 005	1 826	33 576	209 633	197 638	408 980	'19 280
Texas .....	-	47	24	10 883	680 972	5 364	10 003	302 504	1 204 739	740 535	1 963 266	'59 691
Virginia .....	-	19	13	6 689	348 815	2 150	4 442	70 182	1 145 530	334 212	1 495 515	'28 437
Washington .....	-	22	12	15 848	903 979	4 246	7 707	177 405	1 791 412	355 881	2 176 357	'49 694
Wisconsin .....	-	7	2	234	8 473	180	345	5 120	48 085	20 725	68 771	'418

<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.

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
<b>334511, Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing</b>	
Companies <sup>1</sup> .....	number.. 505
All establishments <sup>2</sup> .....	number.. 653
Establishments with 1 to 19 employees .....	number.. 348
Establishments with 20 to 99 employees .....	number.. 121
Establishments with 100 employees or more .....	number.. 184
All employees <sup>3</sup> .....	number.. 155 497
Total compensation .....	\$1,000.. 12 599 217
Annual payroll .....	\$1,000.. 9 715 408
Total fringe benefits .....	\$1,000.. 2 883 809
Production workers, average for year .....	number.. 52 367
Production workers on March 12 .....	number.. 52 178
Production workers on May 12 .....	number.. 52 464
Production workers on August 12 .....	number.. 52 698
Production workers on November 12 .....	number.. 52 067
Production worker hours .....	1,000.. 96 206
Production worker wages .....	\$1,000.. 2 515 057
Total cost of materials .....	\$1,000.. 10 511 137
Materials, parts, containers, packaging, etc., used .....	\$1,000.. 8 823 936
Resales .....	\$1,000.. 465 955
Purchased fuels .....	\$1,000.. 50 379
Purchased electricity .....	\$1,000.. 211 976
Contract work .....	\$1,000.. 958 891
Quantity of electricity purchased for heat and power .....	1,000 kWh.. 3 382 428
Quantity of electricity generated less sold for heat and power .....	1,000 kWh.. 23 913
Total value of shipments .....	\$1,000.. 33 657 615
Primary products value of shipments .....	\$1,000.. 29 666 884
Secondary products value of shipments .....	\$1,000.. 2 480 829
Total miscellaneous receipts .....	\$1,000.. 1 509 902
Value of resales .....	\$1,000.. 585 933
Contract receipts .....	\$1,000.. 100 484
Other miscellaneous receipts .....	\$1,000.. 823 485
Primary products specialization ratio .....	percent.. 92
Value of primary products shipments made in all industries .....	\$1,000.. 31 566 320
Value of primary products shipments made in this industry .....	\$1,000.. 29 666 884
Value of primary products shipments made in other industries .....	\$1,000.. 1 899 436
Coverage ratio .....	percent.. 94
Value added .....	\$1,000.. 22 930 430
Total inventories, beginning of year .....	\$1,000.. 5 219 190
Finished goods inventories .....	\$1,000.. 437 264
Work-in-process inventories .....	\$1,000.. 3 692 658
Materials and supplies inventories .....	\$1,000.. 1 089 268
Total inventories, end of year .....	\$1,000.. 4 797 244
Finished goods inventories .....	\$1,000.. 358 738
Work-in-process inventories .....	\$1,000.. 3 555 136
Materials and supplies inventories .....	\$1,000.. 883 370
Gross value of depreciable assets (acquisition costs) at beginning of year .....	\$1,000.. '10 026 480
Total capital expenditures (new and used) .....	\$1,000.. '865 155
Buildings and other structures (new and used) .....	\$1,000.. '166 413
Machinery and equipment (new and used) .....	\$1,000.. '698 742
Automobiles, trucks, etc., for highway use .....	\$1,000.. '21 190
Computers and peripheral data processing equipment .....	\$1,000.. '92 583
All other expenditures for machinery and equipment .....	\$1,000.. '584 969
Total retirements .....	\$1,000.. '603 288
Gross value of depreciable assets at end of year .....	\$1,000.. '10 288 347
Depreciation charges during year .....	\$1,000.. '740 588
Total rental payments .....	\$1,000.. 298 685
Buildings and other structures .....	\$1,000.. 156 764
Machinery and equipment .....	\$1,000.. 141 921
Total other expenses <sup>4</sup> .....	\$1,000.. 1 308 120
Response coverage ratio <sup>5</sup> .....	percent.. 45
Repair and maintenance services of buildings and/or machinery <sup>4</sup> .....	\$1,000.. 86 682
Communications services <sup>4</sup> .....	\$1,000.. 41 377
Legal services <sup>4</sup> .....	\$1,000.. 38 901
Accounting, auditing, and bookkeeping services <sup>4</sup> .....	\$1,000.. 22 860
Advertising and promotional services <sup>4</sup> .....	\$1,000.. 47 908
Expensed computer hardware and supplies and purchased computer services <sup>4</sup> .....	\$1,000.. 216 766
Refuse removal (including hazardous waste) services <sup>4</sup> .....	\$1,000.. 8 618
Management consulting and administrative services <sup>4</sup> .....	\$1,000.. 54 021
Taxes and license fees <sup>4</sup> .....	\$1,000.. 33 460
All other expenses <sup>4</sup> .....	\$1,000.. 757 526

<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)				
334511, Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing											
All establishments .....	—	653	155 497	9 715 408	52 367	96 206	2 515 057	22 930 430	10 511 137	33 657 615	'865 155
Establishments with—											
1 to 4 employees .....	9	209	406	21 125	202	353	5 369	43 682	19 757	63 447	'1 361
5 to 9 employees .....	8	78	520	31 710	138	253	6 825	70 916	32 549	103 419	'2 314
10 to 19 employees .....	7	61	802	47 347	260	509	11 009	98 986	43 304	142 602	'3 771
20 to 49 employees .....	2	71	2 296	119 669	997	1 912	35 492	255 673	122 182	374 294	'8 884
50 to 99 employees .....	2	50	3 654	183 398	1 644	3 211	62 084	513 623	230 998	746 411	'15 105
100 to 249 employees .....	2	74	12 624	667 341	5 694	10 355	214 562	1 659 171	913 270	2 645 933	'102 427
250 to 499 employees .....	1	37	13 181	825 005	4 674	8 833	192 015	2 275 603	1 192 929	3 497 825	'86 258
500 to 999 employees .....	—	40	27 431	1 610 439	10 077	19 335	456 347	3 916 455	1 897 324	5 789 758	'169 498
1,000 to 2,499 employees .....	—	23	37 111	2 532 789	9 250	16 554	472 250	5 988 248	2 517 908	8 571 356	'180 597
2,500 employees or more .....	—	10	57 472	3 676 585	19 431	34 891	1 059 104	8 108 073	3 540 916	11 722 570	'294 940
Administrative records <sup>4</sup> .....	9	284	1 241	73 388	391	704	14 970	151 265	62 270	213 540	'4 444

<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)				
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing .....	653	155 497	9 715 408	52 367	96 206	2 515 057	22 930 430	10 511 137	33 657 615	786 155
3345111	Aeronautical, nautical, and navigational instruments, not sending or receiving radio signals (except engine instruments) .....	81	15 240	768 185	6 357	11 349	212 360	2 186 966	1 145 559	3 310 230	78 827
3345113	Search, detection, navigation, and guidance systems and equipment .	200	134 424	8 604 106	44 226	81 614	2 227 207	20 009 299	9 057 027	29 313 971	764 190

<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)
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing	2002.. N 1997.. N	X X	X X	31 566 320 29 806 887
3345111	Aeronautical, nautical, and navigational instruments, not sending or receiving radio signals (except engine instruments)	2002.. N 1997.. N	X X	X X	3 221 460 2 651 069
33451111	Aeronautical, nautical, and navigational instruments, not sending or receiving radio signals (except engine instruments)	2002.. N 1997.. N	X X	X X	3 221 460 2 651 069
3345111100	Aeronautical, nautical, and navigational instruments, not sending or receiving radio signals (except engine instruments) <sup>1</sup>	2002.. N 1997.. N	X X	X X	3 221 460 2 651 069
3345113	Search, detection, navigation, and guidance systems and equipment	2002.. N 1997.. N	X X	X X	27 404 667 26 748 331
33451131	Search, detection, navigation, and guidance systems and equipment	2002.. N 1997.. N	X X	X X	27 404 667 26 748 331
3345113100	Search, detection, navigation, and guidance systems and equipment <sup>1</sup>	2002.. N 1997.. N	X X	X X	27 404 667 26 748 331
334511W	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	940 193 407 487
334511WY	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	940 193 407 487
334511WYWW	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing, nsk, for nonadministrative-record establishments	2002.. N 1997.. N	X X	X X	733 541 222 085
334511WYWY	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing, nsk for administrative-record establishments	2002.. N 1997.. N	X X	X X	206 652 185 402

<sup>1</sup>For additional detail, see Current Industrial Report MA334B, Selected Instruments and Related Products.

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)
3345111	Aeronautical, nautical, and navigational instruments, not sending or receiving radio signals (except engine instruments)	
	United States.....	2002.. 3 221 460
		1997.. 2 651 069
	California .....	2002.. 302 755
		1997.. 503 510
	Florida .....	2002.. 426 729
		1997.. 160 950
	Kansas .....	2002.. 115 195
		1997.. 15 089
	Michigan.....	2002.. 64 755
		1997.. 92 307
	New York .....	2002.. 85 250
		1997.. 66 313
	Ohio .....	2002.. 170 466
		1997.. N
Pennsylvania.....	2002.. 112 425	
	1997.. 79 016	
Texas .....	2002.. 104 944	
	1997.. 16 053	
Virginia .....	2002.. 71 860	
	1997.. 69 072	
Washington .....	2002.. 189 541	
	1997.. 287 186	
3345113	Search, detection, navigation, and guidance systems and equipment	
	United States.....	2002.. 27 404 667
		1997.. 26 748 331
	Alabama .....	2002.. 67 347
		1997.. 114 114
	Arizona .....	2002.. 747 113
		1997.. 750 366
	California .....	2002.. 6 315 191
		1997.. 5 364 842
	Connecticut .....	2002.. 258 251
		1997.. 248 994
	Florida .....	2002.. 2 006 932
		1997.. 2 139 417
	Indiana .....	2002.. 93 025
		1997.. 180 182
	Michigan.....	2002.. 215 320
		1997.. 132 602
	New Jersey .....	2002.. 1 765 011
		1997.. 1 531 991
	New York .....	2002.. 759 717
		1997.. 2 391 721
	Ohio .....	2002.. 174 781
		1997.. 125 175
Oregon .....	2002.. 124 812	
	1997.. 226 744	
Texas .....	2002.. 1 783 514	
	1997.. 2 695 027	
Virginia .....	2002.. 1 182 035	
	1997.. 1 020 842	
Wisconsin .....	2002.. 26 629	
	1997.. N	

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)
334511	Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing		
00900001	Total materials .....	2002.. X	8 823 936
		1997.. X	7 728 126
33441200	Printed circuit boards (without inserted components) for electronic circuitry .....	2002.. X	229 381
		1997.. X	170 738
001900C4	Printed circuit assemblies, loaded boards, and modules (printed circuit boards with inserted electronic components) .....	2002.. X	574 438
		1997.. X	251 948
33441300	Semiconductors (including transistors, diodes, rectifiers, and integrated circuits), for electronic circuitry .....	2002.. X	504 580
		1997.. X	475 551
33441400	Capacitors for electronic circuitry .....	2002.. X	67 776
		1997.. X	72 197
33441500	Resistors for electronic circuitry .....	2002.. X	36 155
		1997.. X	70 899
001900D3	All other miscellaneous components and accessories, for electronic circuitry (excluding tubes) .....	2002.. X	915 656
		1997.. X	456 627
33422001	Electronic communication equipment .....	2002.. X	259 282
		1997.. X	355 625
33451501	Electrical instrument mechanisms and meter movements (including instrument relays) .....	2002.. X	131 053
		1997.. X	102 889
33411001	Electronic computer equipment .....	2002.. X	D
		1997.. X	N
33411200	Purchased peripheral storage devices .....	2002.. X	6 124
		1997.. X	N
33593101	Current-carrying wiring devices .....	2002.. X	119 856
		1997.. X	69 451
331000A7	Insulated wire and cable (including magnet wire) .....	2002.. X	61 042
		1997.. X	71 079
33431005	Loudspeakers, microphones, and tuners (all types) .....	2002.. X	2 521
		1997.. X	7 125
33531211	Fractional horsepower electric motors (less than 1 hp) .....	2002.. X	65 690
		1997.. X	35 280
32521105	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc. ....	2002.. X	10 866
		1997.. X	N
32610007	Fabricated plastics products (excluding gaskets, hoses, and belting) .....	2002.. X	25 928
		1997.. X	45 022
332000A9	Sheet metal products (excluding stampings) .....	2002.. X	424 213
		1997.. X	180 318
332000AC	Metal stampings .....	2002.. X	12 969
		1997.. X	13 611
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....	2002.. X	80 960
		1997.. X	62 759
33200033	Other fabricated metal products (excluding forgings) .....	2002.. X	133 796
		1997.. X	137 820
33210000	Forgings .....	2002.. X	16 190
		1997.. X	N
33100035	Castings, rough and semifinished .....	2002.. X	49 497
		1997.. X	73 206
33120001	Steel shapes and forms (excluding castings, forgings, and fabricated metal products) .....	2002.. X	18 702
		1997.. X	5 476
33100038	Aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....	2002.. X	27 814
		1997.. X	N
33100077	Other nonferrous shapes and forms (excluding castings, forgings, and fabricated metal products) .....	2002.. X	12 223
		1997.. X	16 254
32220017	Paper and paperboard containers (including shipping sacks and other paper packaging supplies) .....	2002.. X	D
		1997.. X	9 123
00970099	All other materials and components, parts, containers, and supplies .....	2002.. X	4 173 650
		1997.. X	2 480 257
00971000	Materials, ingredients, containers, and supplies, nsk .....	2002.. X	623 471
		1997.. X	2 564 871

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.