

Table 1. Industry Statistics on NAICS Basis With Distribution Among 1987 SIC-Based Industries: 1997

[NAICS codes appear in bold type. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS or SIC code	Industry	Com-panies ¹	All estab-lish-ments ²	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expendi-tures (\$1,000)
				Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
336412	Aircraft engine & engine parts mfg	279	370	82 892	4 234 135	48 112	98 633	1 933 060	11 572 463	11 347 698	22 659 548	668 718
372400	Aircraft engines & engine parts	N	370	82 892	4 234 135	48 112	98 633	1 933 060	11 572 463	11 347 698	22 659 548	668 718

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.

Table 2. Industry Statistics for Selected States: 1997

[States that are disclosures or with less than 100 employees are not shown. For explanation of terms, see appendixes. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expendi-tures (\$1,000)
		Total	With 20 em-ploy-ees or more	Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
336412, AIRCRAFT ENGINE & ENGINE PARTS MFG												
United States	-	370	248	82 892	4 234 135	48 112	98 633	1 933 060	11 572 463	11 347 698	22 659 548	668 718
Arizona	-	19	16	7 113	399 182	2 376	5 803	117 476	1 470 339	746 350	2 118 710	64 023
California	-	40	21	3 908	167 459	2 780	5 588	115 382	378 499	485 029	845 931	41 328
Connecticut	-	55	39	15 721	908 587	8 622	18 553	357 934	1 833 883	2 361 519	4 133 065	120 546
Florida	-	34	18	6 824	415 300	2 280	5 215	88 248	1 952 372	512 323	2 395 153	29 965
Massachusetts	-	15	14	5 900	311 045	3 757	7 091	174 770	727 187	1 099 928	1 855 626	57 653
Michigan	-	16	12	1 718	66 575	1 213	2 540	38 345	196 681	92 967	290 028	10 829
Ohio	-	29	23	10 281	620 740	4 846	8 739	215 262	1 999 760	2 465 998	4 539 766	142 592
Pennsylvania	-	8	6	1 335	63 166	999	2 037	37 936	127 755	204 710	322 650	7 152

* Hawaii has no incorporated places in the sense of functioning governmental units; however, in agreement with Hawaiian law, the Bureau of the Census reports data for census designated places (CDPs) which have been designated as place equivalents. Those CDPs, only for the state of Hawaii, with 2,500 or more population are recognized.

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 based on administrative-record 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.

Table 3. Detailed Statistics by Industry: 1997

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Value	Item	Value
336412, AIRCRAFT ENGINE & ENGINE PARTS MFG		336412, AIRCRAFT ENGINE & ENGINE PARTS MFG—Con.	
Companies ¹	number.. 279	Value added	\$1,000.. 11 572 463
All establishments	number.. 370	Total inventories, beginning of year	\$1,000.. 3 455 058
Establishments with 1 to 19 employees	number.. 122	Finished goods inventories, beginning of year	\$1,000.. 1 002 548
Establishments with 20 to 99 employees	number.. 112	Work-in-process inventories, beginning of year	\$1,000.. 2 012 042
Establishments with 100 employees or more	number.. 136	Materials and supplies inventories, beginning of year	\$1,000.. 440 468
All employees	number.. 82 892	Total inventories, end of year	\$1,000.. 3 751 029
Total compensation ²	\$1,000.. 5 334 895	Finished goods inventories, end of year	\$1,000.. 1 251 686
Annual payroll	\$1,000.. 4 234 135	Work-in-process inventories, end of year	\$1,000.. 2 023 517
Total fringe benefits	\$1,000.. 1 100 760	Materials and supplies inventories, end of year	\$1,000.. 475 826
Production workers, average for year	number.. 48 112	Gross book value of total assets at beginning of year	\$1,000.. 7 630 251
Production workers on March 12	number.. 47 499	Total capital expenditures (new and used)	\$1,000.. 668 718
Production workers on May 12	number.. 47 898	Capital expenditures for buildings and other structures (new and used)	\$1,000.. 77 214
Production workers on August 12	number.. 47 723	Capital expenditures for machinery and equipment (new and used)	\$1,000.. 591 504
Production workers on November 12	number.. 48 948	Total retirements ²	\$1,000.. 313 079
Production-worker hours	1,000.. 98 633	Gross book value of total assets at end of year	\$1,000.. 7 985 890
Production-worker wages	\$1,000.. 1 933 060	Total depreciation during year ²	\$1,000.. 613 113
Total cost of materials	\$1,000.. 11 347 698	Total rental payments ²	\$1,000.. 151 828
Cost of materials, parts, containers, etc., consumed	\$1,000.. 9 180 945	Buildings and other structures rental payments ²	\$1,000.. 41 509
Cost of resales	\$1,000.. 975 769	Machinery and equipment rental payments ²	\$1,000.. 110 319
Cost of fuels	\$1,000.. 42 752	Cost of purchased services for the repair of buildings and other structures ³	\$1,000.. 39 553
Cost of purchased electricity	\$1,000.. 154 064	Response coverage ratio ⁴	percent.. 63
Cost of contract work	\$1,000.. 994 168	Cost of purchased services for the repair of machinery and equipment ³	\$1,000.. 87 085
Quantity of electricity purchased for heat and power	1,000 kWh.. 2 403 580	Response coverage ratio ⁴	percent.. 63
Quantity of electricity generated less sold for heat and power	1,000 kWh.. S	Cost of purchased communications services ³	\$1,000.. 35 559
Total value of shipments	\$1,000.. 22 659 548	Response coverage ratio ⁴	percent.. 63
Primary products value of shipments	\$1,000.. 19 228 049	Cost of purchased legal services ³	\$1,000.. 13 097
Secondary products value of shipments	\$1,000.. 2 312 634	Response coverage ratio ⁴	percent.. 63
Total miscellaneous receipts	\$1,000.. 1 118 865	Cost of purchased accounting and bookkeeping services ³	\$1,000.. 3 876
Value of resales	\$1,000.. 1 022 076	Response coverage ratio ⁴	percent.. 63
Contract receipts	\$1,000.. 19 731	Cost of purchased advertising services ³	\$1,000.. 14 419
Other miscellaneous receipts	\$1,000.. 77 058	Response coverage ratio ⁴	percent.. 63
Primary products specialization ratio	percent.. 89	Cost of purchased software and other data processing services ³	\$1,000.. 23 590
Value of primary products shipments made in all industries	\$1,000.. 20 096 099	Response coverage ratio ⁴	percent.. 63
Value of primary products shipments made in this industry	\$1,000.. 19 228 049	Cost of purchased refuse removal (including hazardous waste) services ³	\$1,000.. 9 928
Value of primary products shipments made in other industries	\$1,000.. 868 050	Response coverage ratio ⁴	percent.. 63
Coverage ratio	percent.. 95		

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

²These items are collected in the ASM and estimated for the remaining establishments; therefore, the levels of estimation are higher than for other items in the table.

³Based on ASM sample data.

⁴A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those ASM establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

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

Table 4. Industry Statistics by Employment Size: 1997

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Employment size class	All establishments		All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)	
	E ¹	Total	With 20 employees or more	Number	Payroll (\$1,000)	Number	Hours (1,000)					Wages (\$1,000)
336412. AIRCRAFT ENGINE & ENGINE PARTS MFG												
All establishments	-	370	248	82 892	4 234 135	48 112	98 633	1 933 060	11 572 463	11 347 698	22 659 548	668 718
Establishments with 1 to 4 employees	4	63	-	131	4 324	98	155	2 644	12 703	11 931	24 310	444
Establishments with 5 to 9 employees	3	27	-	188	7 726	131	238	4 647	35 189	19 556	55 056	764
Establishments with 10 to 19 employees	4	32	-	442	16 586	315	592	10 107	44 745	31 017	72 064	1 952
Establishments with 20 to 49 employees	2	66	66	2 330	94 818	1 595	3 344	54 141	246 769	142 135	385 523	8 792
Establishments with 50 to 99 employees	3	46	46	3 371	129 436	2 467	5 199	85 326	327 430	179 063	500 002	13 577
Establishments with 100 to 249 employees	1	76	76	12 356	475 713	8 683	18 894	284 948	1 107 644	812 350	1 875 482	80 604
Establishments with 250 to 499 employees	-	29	29	10 380	414 600	7 111	15 178	261 931	1 097 010	1 049 553	2 071 149	119 315
Establishments with 500 to 999 employees	-	19	19	12 317	532 836	8 618	17 173	329 094	1 337 678	1 679 090	3 080 305	106 280
Establishments with 1,000 to 2,499 employees	-	5	5	D	D	D	D	D	D	D	D	D
Establishments with 2,500 employees or more	-	7	7	D	D	D	D	D	D	D	D	D
Administrative records ²	9	69	-	426	16 073	296	544	9 530	31 206	21 586	52 529	1 167

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 based on administrative-record 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.

²Some 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.

Table 5. Industry Statistics by Industry and Primary Product Class Specialization: 1997

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS industry or product class code	Industry or primary product class	All establishments	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				
336412	Aircraft engine & engine parts mfg	370	82 892	4 234 135	48 112	98 633	1 933 060	11 572 463	11 347 698	22 659 548	668 718
3364121	Military aircraft engines (and any other aircraft built to military specifications)	8	D	D	D	D	D	D	D	D	D
3364123	Civilian aircraft engines	40	33 957	2 040 705	15 827	33 384	730 171	5 389 094	6 632 114	11 857 153	292 360
3364125	Aeronautical services on aircraft engines	27	4 987	180 874	3 940	7 340	116 964	362 141	332 628	697 813	31 673
3364127	Aircraft engine parts and accessories	157	31 195	1 299 840	22 381	46 481	835 080	3 213 770	2 907 185	6 054 999	265 680

Table 6a. Products Statistics: 1997 and 1992

[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. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS product code	Product	1997				1992			
		Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments		Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)			Quantity	Value (\$1,000)
336412	Aircraft engines and engine parts	N	X	X	20 096 099	N	X	X	20 932 579
3364121	Military aircraft engines (and any other aircraft built to military specifications)	N	X	X	1 712 011	N	X	X	3 260 415
33641211	Military aircraft engines (and any other aircraft built to military specifications)	N	X	X	1 712 011	N	N	N	N
3364121100	Military aircraft engines (and any other aircraft built to military specifications)	20	X	X	1 712 011	28	X	X	3 260 415
3364123	Civilian aircraft engines @	N	X	X	5 295 622	N	X	X	6 667 521
33641230	Civilian aircraft engines	N	X	X	5 295 622	N	N	N	N
3364123000	Civilian aircraft engines	42	X	X	5 295 622	35	X	X	6 667 521
3364125	Aeronautical services on aircraft engines	N	X	X	3 229 045	N	X	X	2 678 510
33641251	Aeronautical services on aircraft engines	N	X	X	3 008 876	N	N	N	N
3364125101	Research and development work on U.S. military aircraft engines and all other engines built to military specifications	9	X	X	D	14	X	X	N
3364125104	Research and development work on civilian aircraft engines	8	X	X	D	16	X	X	N
3364125107	All other aeronautical services on U.S. military aircraft engines and all other engines built to military specifications	15	X	X	732 242	15	X	X	758 692
3364125111	All other aeronautical services on civilian aircraft engines	20	X	X	1 513 859	18	X	X	737 326
3364125Y	Aeronautical services on aircraft engines, nsk	N	X	X	220 169	N	N	N	N
3364125YVV	Aeronautical services on aircraft engines, nsk	N	X	X	220 169	N	X	X	2 455
3364127	Aircraft engine parts and accessories	N	X	X	9 441 222	N	X	X	7 965 191
33641271	Parts and accessories for spark ignition reciprocating or rotary internal combustion military aircraft engines	N	X	X	1 880 584	N	N	N	N
3364127101	Parts and accessories for spark ignition reciprocating or rotary internal combustion military aircraft engines	32	X	X	1 880 584	56	X	X	1 632 422
33641272	Parts and accessories for other military aircraft engines	N	X	X	531 233	N	N	N	N
3364127204	Parts and accessories for other military aircraft engines	68	X	X	531 233	72	X	X	1 519 377
33641273	Parts and accessories for spark ignition reciprocating or rotary internal combustion civilian aircraft engines	N	X	X	4 157 391	N	N	N	N
3364127307	Parts and accessories for spark ignition reciprocating or rotary internal combustion civilian aircraft engines	58	X	X	4 157 391	79	X	X	1 960 438
33641274	Parts and accessories for other civilian aircraft engines	N	X	X	2 017 867	N	N	N	N
3364127411	Parts and accessories for other civilian aircraft engines	83	X	X	2 017 867	79	X	X	2 664 458
3364127Y	Aircraft engine parts and accessories, nsk	N	X	X	854 147	N	N	N	N
3364127YVV	Aircraft engine parts and accessories, nsk	N	X	X	854 147	N	X	X	188 496
336412W	Aircraft engines and engine parts manufacturing, nsk, total	N	X	X	418 199	N	X	X	360 942
336412WY	Aircraft engines and engine parts manufacturing, nsk, total	N	X	X	418 199	N	N	N	N
336412WYWW	Aircraft engines and engine parts manufacturing, nsk, for nonadministrative-record establishments	N	X	X	368 771	N	X	X	321 787
336412WYWY	Aircraft engines and engine parts manufacturing, nsk, for administrative-record establishments	N	X	X	49 428	N	X	X	39 155

Additional information is available for this item; see Appendix F.

@ Additional data are available for these codes at the aggregate U.S. level in the Current Industrial Report (CIR) series; see Appendix F for the CIR survey number and title.

\$ This product is primary to more than one industry; see Appendix F for a listing of the related product codes.

Note: For some establishments, data have been estimated from central unit values which 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.

Table 6b. Product Class Shipments for Selected States: 1997 and 1992

[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 1997. For meaning of abbreviations and symbols, see introductory text. For explanations of terms, see appendixes]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)	
		1997	1992
3364121	MILITARY AIRCRAFT ENGINES (AND ANY OTHER AIRCRAFT BUILT TO MILITARY SPECIFICATIONS)		
	United States	1 712 011	3 260 415
	Connecticut	44 884	N
3364123	CIVILIAN AIRCRAFT ENGINES @		
	United States	5 295 622	6 667 521
	California	57 632	N
	Florida	72 906	N
	Michigan	23 630	N
	Oklahoma	13 034	N
3364125	AERONAUTICAL SERVICES ON AIRCRAFT ENGINES		
	United States	3 229 045	2 678 510
	California	32 296	193 980
	Connecticut	117 576	127 087
	Massachusetts	217 501	N
	Michigan	22 343	N
	Oklahoma	92 259	N
3364127	AIRCRAFT ENGINE PARTS AND ACCESSORIES		
	United States	9 441 222	7 965 191
	Arizona	625 160	N
	California	654 166	647 498
	Connecticut	1 479 535	593 069
	Florida	823 570	1 036 828
	Georgia	301 296	99 290
	Illinois	221 984	253 801
	Indiana	485 346	285 125
	Massachusetts	439 414	413 201
	Michigan	234 337	227 815
	New York	279 274	351 784
	Ohio	1 055 129	1 706 817
	Oklahoma	38 054	16 785
	Pennsylvania	185 737	205 053
	Texas	147 936	229 995
	Washington	32 746	N

Additional information is available for this item; see Appendix F.
 @ Additional data are available for these codes at the aggregate U.S. level in the Current Industrial Report (CIR) series; see Appendix F for the CIR survey number and title.
 \$ This product is primary to more than one industry; see Appendix F for a listing of the related product codes.

Table 7. Materials Consumed by Kind: 1997 and 1992

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS material code	Material consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
336412	AIRCRAFT ENGINE & ENGINE PARTS MFG				
33641201	Aircraft engines	X	249 248	X	D
33641203	Aircraft engine parts (except instruments)	X	5 171 339	X	4 353 141
00190071	Other matrix composites, including ceramic, carbon, metal, etc.	X	16 014	X	24 114
33291209	Complete mechanical, hydraulic and pneumatic subassemblies	X	18 104	X	7 271
33299101	Ball and roller bearings (mounted or unmounted)	X	24 151	X	D
33351503	Cutting tools for machine tools	X	16 227	X	D
33251015	Aircraft metal hardware (except forgings)	X	174 165	X	104 449
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products	X	27 315	X	65 801
33200009	Other fabricated metal products, except fluid power and forgings	X	51 984	X	69 701
33211101	Iron and steel forgings	X	186 798	X	128 105
33211203	Aluminum and aluminum-base alloy forgings	X	19 305	X	N
33211205	Titanium and titanium-base alloy forgings	X	114 733	X	137 539
33210003	Other forgings	X	58 714	X	N
33151001	Iron and steel castings (rough and semifinished)	X	223 091	X	103 551
33152005	Aluminum and aluminum-base alloy castings (rough and semifinished)	X	28 193	X	71 383
33152003	Other nonferrous castings (rough and semifinished)	X	77 723	X	202 102
33120007	Steel bars, bar shapes, and plates (except castings, forgings, and fabricated metal products)	X	110 699	X	53 719
33120017	Steel sheet and strip, including tin plate	X	59 903	X	22 046
33120033	All other steel shapes and forms (except castings, forgings, and fabricated metal products)	X	10 883	X	18 198
33131501	Aluminum and aluminum-base alloy sheet, plate, foil, and welded tubing	X	7 654	X	5 015

See footnotes at end of table.

Table 7. Materials Consumed by Kind: 1997 and 1992—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS material code	Material consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
336412	AIRCRAFT ENGINE & ENGINE PARTS MFG—Con.				
33100055	All other aluminum and aluminum-base alloy shapes and forms (except castings, forgings, and fabricated metal products)	X	1 391	X	13 583
33142111	Copper and copper-base alloy shapes and forms (except castings, forgings, and fabricated metal products)	X	230	X	N
33149101	Titanium and titanium-base alloy shapes and forms (except castings, forgings, and fabricated metal products)	X	21 724	X	28 853
33100065	Other nonferrous shapes and forms (except castings, forgings, and fabricated metal products)	X	32 263	X	N
32551003	Paints, varnishes, lacquers, stains, shellacs, japans, enamels, and allied products	X	798	X	912
00970099	All other materials and components, parts, containers, and supplies	X	461 633	X	D
00971000	Materials, ingredients, containers, and supplies, n.s.k.	X	2 016 663	X	D

Additional information is available for this item; see Appendix F.

Note: For some establishments, data have been estimated from central unit values which 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.