

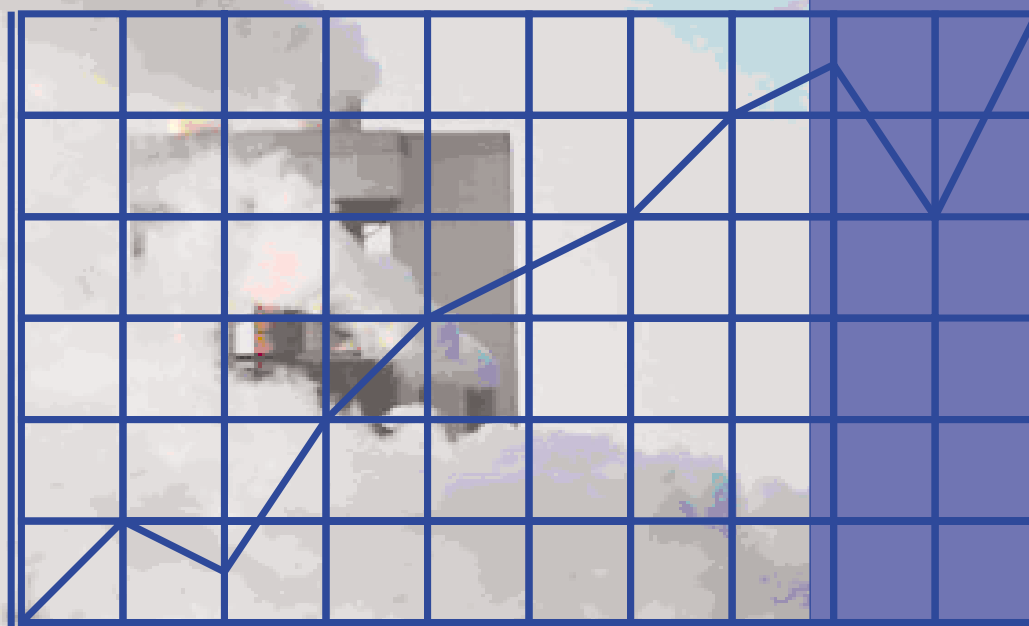
Statistics for Industry Groups and Industries

1998

Issued August 2000

M98(AS)-1

Annual Survey of Manufactures



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

Helping You Make Informed Decisions

U.S. Department of Commerce
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Introduction

SCOPE

The Annual Survey of Manufacturers (ASM) provides sample estimates of statistics for all manufacturing establishments with one or more paid employee. Manufacturing is defined as the mechanical, physical, or chemical transformation of materials or substances into new products. The assembly of components into new products is also considered manufacturing, except when it is appropriately classified as construction.

Establishments in the manufacturing sector are often described as plants, factories, or mills and typically use power-driven machines and materials-handling equipment. Also included in the manufacturing sector are some establishments that make products by hand, like custom tailors and the makers of custom draperies. While manufacturers typically do not sell to the public, some establishments like bakeries and candy stores that make products on the premises may be included.

GENERAL

This report presents manufacturing establishment statistics from the 1998 Annual Survey of Manufactures (ASM). Three reports are issued from this survey.

The report *Statistics for Industry Groups and Industries* presents 1997 and 1998 data at the three-, four-, five-, and six-digit North American Industry Classification System (NAICS) levels. The 1997 data are from the 1997 Economic Census and include revisions made to the data since its initial release. The report also includes a historic table with data for the all-manufacturing level back to 1977. This report includes statistics for employment, payroll, value added by manufacture, cost of materials consumed, value of shipments, detailed capital expenditures, supplemental labor costs, fuels and electric energy used, and inventories by stage of fabrication.

The report *Geographic Area Statistics* presents similar data for each state and the District of Columbia. This report includes statistics at the NAICS three- and four-digit levels for employment, payroll, value added by manufacture, cost of materials consumed, value of shipments, and total capital expenditures. Data for detailed capital expenditures, supplemental labor costs, fuels and electric energy used, and inventories by stage of fabrication are presented at the state level.

The report *Value of Product Shipments* presents shipments data for the 473 six-digit NAICS product groups and approximately 1,500 seven-digit NAICS product classes.

COMPARABILITY WITH HISTORIC DATA

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Another change resulting from the conversion to NAICS is that data for auxiliaries and central administrative offices (CAOs) associated with manufacturers are not presented with the manufacturing data.

It should also be noted that while the Census Bureau published "new capital expenditures" in the past, starting with 1997 it is publishing "total capital expenditures." The historic data presented in this report have been adjusted to be consistent with the new policy.

DISCLOSURE

In accordance with federal law governing census reports (Title 13, United States Code), no data are published that would disclose the operations of an individual company.

The disclosure analysis for the industry statistics files is based on the total value of shipments. When the total value of shipments cannot be shown without disclosing information for individual companies, the complete line is suppressed except for capital expenditures. However, the suppressed data are included in higher-level totals. A separate disclosure analysis is performed for capital expenditures that can be suppressed even though value of shipments data are published.

AVAILABILITY OF MORE FREQUENT MANUFACTURING DATA

The Census Bureau conducts the ASM in each of the 4 years between the economic census which is collected for years ending in 2 and 7. The economic census – manufacturing is the sample frame from which the ASM is chosen and presents more detailed data than the ASM.

In addition, the Census Bureau conducts a Current Industrial Reports (CIR) program. The CIR publishes product statistics for selected manufacturing industries at the U.S. level annually and, in some cases, monthly and/or quarterly.

The Census Bureau also conducts the monthly Manufacturers' Shipments, Inventories, and Orders (M3) program, which publishes detailed statistics for manufacturing industries at the U.S. level.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each of the establishments canvassed in the ASM was classified in 1 of 473 manufacturing industries in accordance with the industry definitions in the *1997 NAICS Manual*.

In the NAICS system, an industry is generally defined as a group of establishments that have similar production processes. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added by manufacture, value of shipments, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the manufacturing sector, there are 21 subsectors (three-digit NAICS), 86 industry groups (four-digit NAICS), 184 NAICS industries (five-digit NAICS) that are comparable with Canadian and Mexican classification, and 473 U.S. industries (six-digit NAICS). Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they primarily originate. In the NAICS system, there are about 1,500 product classes (seven-digit codes), about 6,000 census products, and an additional 3,700 CIR products (ten-digit codes). The ten-digit products are considered the primary products of the industry with the same first six digits.

In the 1997 Economic Census – Manufacturing, all establishments were classified in particular industries based on the products they produced. If an establishment made products of more than one industry, it was classified in the industry with the largest product value. In the census years, there were no resistance rules or frozen industries.

In ASM years, establishments included in the ASM sample with certainty weights are reclassified by industry only if the change in the primary activity from the prior

year is significant or if the change has occurred for two successive years. This procedure prevents reclassification when there are minor shifts in product mix.

In ASM years, establishments included in the ASM sample with noncertainty weight are not shifted from one industry classification to another. They are retained in the industry where they were classified in the base census year. However, in the following census year, these ASM plants are allowed to shift from one industry to another.

The results of these rules covering the switching of plants from one industry classification to another are that some industries comprise different mixes of establishments in different survey years. Hence, comparisons between prior-year and current-year published totals, particularly at the six-digit NAICS level, should be viewed with caution. This is particularly true for the comparison between the data shown for a census year versus the data shown for the previous ASM year.

ESTABLISHMENT BASIS OF REPORTING

The ASM is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each location or establishment selected in the sample. Companies engaged in distinctly different lines of activity at one location are requested to submit separate reports if the plant records permit such a separation and if the activities are substantial in size.

DUPLICATION IN COST OF MATERIALS AND VALUE OF SHIPMENTS

Data for cost of materials and value of shipments include varying amounts of duplication, especially at higher levels of aggregation. This is because the products of one establishment may be the materials of another. The value added statistics avoid this duplication and are, for most purposes, the best measure for comparing the relative economic importance of industries and geographic areas.

VALUE OF INDUSTRY SHIPMENTS COMPARED WITH VALUE OF PRODUCT SHIPMENTS

The 1997 Economic Census – Manufacturing shows value of shipments data for industries and products. In the industry statistics tables and files, these data represent the total value of shipments of all establishments classified in a particular industry. The data include the shipments of the products classified in the industry (primary to the industry), products classified in other industries (secondary to the industry), and miscellaneous receipts (repair work, sale of scrap, research and development, installation receipts, and resales). Value of product shipments shown in the products statistics tables and files represent the total value of all products shipped that are classified as primary to an industry regardless of the classification of the producing establishment.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1998 data are expressed in 1998 dollars, and 1997 data, in 1997 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the data:

A Standard error of 100 percent or more.

D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals.
N	Not available or not comparable.
S	Withheld because estimates did not meet publication standards.
X	Not applicable.
r	Revised.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
NAICS	North American Industry Classification System.

Table 1. Statistics for All Manufacturing Establishments: 1998 and Earlier Years

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

Year ¹	Establishments ²		All employees ³		Production workers			Value added by manufacture ⁵ (\$1,000)	Cost of materials (\$1,000)	Value of shipments ⁶ (\$1,000)	Total capital expenditures ⁷ (\$1,000)
	Total	With 20 employees or more	Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)				
1998	N	N	17 056 922	590 038 804	12 276 393	24 764 173	351 204 084	1 899 238 281	2 024 080 791	3 914 815 804	151 904 983
1997	-	-	16 885 806	572 264 844	12 126 220	24 312 007	339 733 009	1 831 194 248	2 020 476 579	3 845 570 277	151 734 631
1996	N	N	17 326 300	560 518 300	12 167 800	25 010 500	324 495 800	1 749 661 900	1 975 362 100	3 715 428 200	146 467 500
1995	N	N	17 419 200	545 362 700	12 253 100	25 072 000	317 767 500	1 711 442 300	1 897 570 700	3 594 359 600	134 318 100
1994	N	N	17 059 400	522 565 700	11 947 100	24 560 100	304 663 000	1 605 980 000	1 752 735 100	3 348 019 200	118 664 700
1993	N	N	16 943 500	504 363 100	11 726 200	23 845 100	290 293 200	1 483 054 100	1 647 492 600	3 127 620 400	108 628 500
1992	N	N	16 948 900	494 108 900	11 640 900	23 563 100	281 538 200	1 424 699 700	1 571 773 500	3 004 722 800	110 643 800
1991	N	N	16 792 800	467 040 300	11 652 000	23 383 000	270 601 000	1 341 386 200	1 531 221 300	2 878 164 800	103 152 900
1990	N	N	17 579 400	472 622 300	12 232 700	24 463 300	275 208 400	1 346 970 100	1 574 617 300	2 912 228 500	106 462 800
1989	N	N	17 794 800	463 045 300	12 535 500	24 933 900	273 119 900	1 325 433 600	1 532 330 000	2 840 376 000	101 894 300
1988	N	N	17 917 500	450 775 700	12 438 700	24 815 400	265 147 100	1 269 313 000	1 444 500 900	2 695 432 300	84 706 100
1987	N	N	17 718 000	428 480 000	12 280 400	24 302 700	251 449 500	1 165 740 800	1 319 844 600	2 475 939 100	85 662 100
1986	N	N	17 086 800	402 466 700	11 765 400	23 178 200	236 599 400	1 035 437 400	1 217 608 600	2 260 314 600	80 795 100
1985	N	N	17 508 300	396 610 500	12 174 400	23 731 600	235 790 800	1 000 142 000	1 276 009 600	2 280 183 800	91 244 900
1984	N	N	17 854 900	384 921 500	12 572 800	24 637 100	231 783 900	983 227 700	1 288 413 600	2 253 429 300	80 659 900
1983	N	N	17 453 100	354 232 200	12 203 000	23 611 600	212 416 400	882 014 500	1 170 237 800	2 045 853 300	67 479 800
1982	N	N	17 818 100	341 406 200	12 400 600	23 538 300	204 787 200	824 117 700	1 130 142 700	1 960 205 800	77 045 700
1981	N	N	18 919 800	341 319 800	13 542 800	26 233 100	212 200 900	837 506 500	1 193 969 600	2 017 542 500	83 767 000
1980	N	N	19 311 400	316 494 500	13 900 100	26 745 700	198 164 000	773 831 300	1 093 567 600	1 852 668 300	74 624 600
1979	N	N	19 756 500	298 529 100	14 537 800	28 324 300	192 881 500	747 480 500	999 157 500	1 727 214 600	65 796 600
1978	N	N	19 239 400	271 540 900	14 228 700	27 676 500	176 416 800	657 412 000	877 424 700	1 522 937 300	58 346 000
1977	N	N	18 515 900	242 031 900	13 691 000	26 686 700	157 163 700	585 165 600	782 417 700	1 358 526 400	51 907 300

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). Also, in census year 1997, collection and publication of census and subsequent ASM data changed from the Standard Industrial Classification (SIC) basis to the North American Industry Classification System (NAICS). For a discussion of the impact of this change on the data, see introductory text.

²Includes establishments with payroll at any time during year. Beginning in census year 1997, auxiliary establishments associated with manufacturing companies are classified separately. For 1992 and earlier census years, establishment counts for auxiliaries are excluded.

³Figures include employment and payroll data for employees at manufacturing establishments engaged in nonmanufacturing activities (such as distribution and construction). Beginning in 1997, auxiliary establishments associated with manufacturing companies are classified separately. For 1996 and earlier census years, establishment data for auxiliaries are excluded.

⁴Figures represent average number of production workers for payroll period ended nearest the 12th of March, May, August, and November, plus all other employees for payroll period ended nearest the 12th of March.

⁵Beginning in 1982, all respondents were requested to report their inventories at cost or market prior to adjustment to LIFO cost. This is a change from prior years in which respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, 1982 data for value added are not comparable to prior years.

⁶Data represent value of shipments for most industries. For industries 311411, 311412, 311421, 311422, 311711, 311712, 311941, 311999, 312140, 312210, 312221, and 312229 value of production is shown. For industry 336611, value of work done is shown.

⁷Beginning in 1997, data shown are for total capital expenditures (new and used). Prior to 1997, only data for new capital expenditures were shown in this table. 1996 and earlier years data have been adjusted to show total capital expenditures.

Table 2. Statistics for Industry Groups and Industries: 1998 and 1997

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

NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—		
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F	
												B
31-33	Manufacturing	1998..	17 056 922	590 038 804	12 276 393	24 764 173	351 204 084	1 899 238 281	2 024 080 791	3 914 815 804	1	1
		1997..	16 885 806	572 264 844	12 126 220	24 312 007	339 733 009	1 831 194 248	2 020 476 579	3 845 570 277	X	X
311	Food mfg	1998..	1 501 231	39 684 355	1 143 149	2 318 256	26 185 002	175 406 545	256 345 026	431 820 065	1	1
		1997..	1 470 469	38 518 457	1 113 898	2 236 075	25 263 480	165 083 397	259 395 019	424 010 777	X	X
3111	Animal food mfg	1998..	46 378	1 537 297	31 244	64 872	924 165	9 271 015	18 342 499	27 735 369	2	2
		1997..	46 870	1 486 128	30 278	62 990	851 631	8 856 823	19 116 084	27 935 788	X	X
31111	Animal food mfg	1998..	46 378	1 537 297	31 244	64 872	924 165	9 271 015	18 342 499	27 735 369	2	2
		1997..	46 870	1 486 128	30 278	62 990	851 631	8 856 823	19 116 084	27 935 788	X	X
311111	Dog & cat food mfg	1998..	14 246	532 681	10 950	24 274	372 761	4 586 064	4 750 310	9 360 753	1	1
		1997..	14 106	505 730	10 693	23 702	347 473	4 359 208	4 426 637	8 766 978	X	X
311119	Other animal food mfg	1998..	32 132	1 004 617	20 294	40 598	551 405	4 684 950	13 592 189	18 374 616	3	4
		1997..	32 764	980 398	19 585	39 288	504 158	4 497 615	14 689 447	19 168 810	X	X
3112	Grain & oilseed milling	1998..	58 405	2 342 851	43 018	95 406	1 622 172	16 192 012	34 250 902	50 409 257	1	1
		1997..	59 338	2 362 311	44 210	97 455	1 647 047	15 885 364	36 267 233	52 143 814	X	X
31121	Flour milling & malt mfg	1998..	17 067	595 043	12 348	27 634	394 802	2 759 062	7 644 196	10 410 236	2	2
		1997..	17 972	622 191	13 260	28 607	412 988	2 706 490	8 513 095	11 209 927	X	X
311211	Flour milling	1998..	12 117	420 217	8 789	19 716	282 763	1 924 180	5 560 586	7 509 666	2	2
		1997..	12 799	445 650	9 320	20 480	297 586	1 899 643	6 138 851	8 046 423	X	X
311212	Rice milling	1998..	3 664	121 482	2 780	6 249	81 052	605 476	1 663 560	2 262 274	7	4
		1997..	3 832	119 756	3 006	6 327	81 161	596 999	1 812 193	2 374 891	X	X
311213	Malt mfg	1998..	1 286	53 344	779	1 670	30 988	229 407	402 050	638 296	2	13
		1997..	1 341	56 785	934	1 800	34 241	209 848	562 051	788 613	X	X
31122	Starch & vegetable fats & oils mfg	1998..	26 385	1 021 695	18 308	41 103	641 575	6 372 041	23 970 711	30 308 449	1	2
		1997..	26 970	1 022 051	19 142	42 829	653 109	6 622 646	25 190 746	31 835 054	X	X
311221	Wet corn milling	1998..	9 326	414 429	5 991	13 902	264 245	3 007 717	4 989 989	7 974 544	1	1
		1997..	9 217	422 533	6 372	14 726	274 677	3 071 056	5 361 443	8 455 172	X	X
311222	Soybean processing	1998..	6 388	238 814	4 486	10 017	142 989	1 402 993	11 250 793	12 696 171	1	1
		1997..	6 601	229 727	4 560	10 207	140 346	1 623 082	12 449 318	14 036 271	X	X
311223	Other oilseed processing	1998..	2 444	66 167	1 742	3 959	40 541	351 000	1 445 321	1 720 413	1	32
		1997..	2 667	73 451	1 949	4 474	45 528	246 561	1 419 419	1 720 738	X	X
311225	Fats & oils refining & blending	1998..	8 227	302 285	6 089	13 226	193 799	1 610 330	6 284 608	7 917 321	1	1
		1997..	8 485	296 340	6 261	13 422	192 558	1 681 947	5 960 566	7 622 873	X	X
31123	Breakfast cereal mfg	1998..	14 953	726 113	12 362	26 669	585 795	7 060 910	2 635 995	9 690 573	1	1
		1997..	14 396	718 069	11 808	26 019	580 950	6 556 228	2 563 392	9 098 833	X	X
311230	Breakfast cereal mfg	1998..	14 953	726 113	12 362	26 669	585 795	7 060 910	2 635 995	9 690 573	1	1
		1997..	14 396	718 069	11 808	26 019	580 950	6 556 228	2 563 392	9 098 833	X	X
3113	Sugar & confectionery product mfg	1998..	84 109	2 631 019	68 935	139 087	1 839 265	12 936 927	12 681 476	25 479 673	3	1
		1997..	84 906	2 561 683	67 239	136 031	1 789 719	11 878 538	12 980 201	24 126 764	X	X
31131	Sugar mfg	1998..	16 728	627 566	13 278	31 253	456 989	2 257 503	5 317 436	7 510 224	1	4
		1997..	16 577	612 809	12 897	30 003	440 015	2 158 601	5 327 914	7 411 481	X	X
311311	Sugarcane mills	1998..	4 903	159 956	3 506	8 741	105 779	733 590	880 062	1 513 731	1	11
		1997..	4 968	168 910	3 390	8 837	110 760	649 978	881 955	1 469 792	X	X
311312	Cane sugar refining	1998..	3 938	198 015	2 864	7 182	131 442	596 782	2 726 916	3 321 974	1	1
		1997..	3 891	191 663	2 823	6 835	126 215	540 141	2 677 639	3 209 186	X	X
311313	Beet sugar mfg	1998..	7 888	269 595	6 908	15 331	219 768	927 131	1 710 458	2 674 518	1	3
		1997..	7 718	252 236	6 684	14 333	203 040	968 482	1 768 320	2 732 503	X	X
31132	Chocolate & confectionery mfg from cacao beans	1998..	10 000	361 589	7 909	15 530	252 014	2 520 035	2 149 800	4 576 248	1	1
		1997..	9 946	383 045	7 350	14 366	248 383	1 821 177	1 925 201	3 755 268	X	X
311320	Chocolate & confectionery mfg from cacao beans	1998..	10 000	361 589	7 909	15 530	252 014	2 520 035	2 149 800	4 576 248	1	1
		1997..	9 946	383 045	7 350	14 366	248 383	1 821 177	1 925 201	3 755 268	X	X
31133	Confectionery mfg from purchased chocolate	1998..	29 859	865 521	25 870	50 073	615 745	4 856 856	3 136 235	8 010 409	9	2
		1997..	32 871	856 440	26 670	52 257	605 617	4 815 479	3 126 892	7 879 752	X	X
311330	Confectionery mfg from purchased chocolate	1998..	29 859	865 521	25 870	50 073	615 745	4 856 856	3 136 235	8 010 409	9	2
		1997..	32 871	856 440	26 670	52 257	605 617	4 815 479	3 126 892	7 879 752	X	X
31134	Nonchocolate confectionery mfg	1998..	27 522	776 342	21 879	42 231	514 516	3 302 532	2 078 005	5 382 792	1	1
		1997..	25 512	709 389	20 322	39 405	475 704	3 083 281	2 000 194	5 080 263	X	X
311340	Nonchocolate confectionery mfg	1998..	27 522	776 342	21 879	42 231	514 516	3 302 532	2 078 005	5 382 792	1	1
		1997..	25 512	709 389	20 322	39 405	475 704	3 083 281	2 000 194	5 080 263	X	X
3114	Fruit & vegetable preserving & specialty food mfg	1998..	190 789	4 983 609	159 356	320 810	3 634 776	24 607 376	24 280 518	48 939 877	1	1
		1997..	192 801	4 924 817	161 338	318 429	3 560 286	23 503 039	23 415 075	46 952 890	X	X
31141	Frozen food mfg	1998..	97 054	2 294 056	81 831	160 034	1 682 242	10 996 359	10 297 640	20 768 448	1	1
		1997..	94 959	2 214 730	80 699	155 640	1 607 813	9 935 058	9 851 959	19 830 545	X	X
311411	Frozen fruit, juice, & vegetable mfg ..	1998..	49 668	1 106 423	41 711	82 597	832 463	4 712 616	5 212 219	9 905 729	2	1
		1997..	46 900	1 062 357	40 555	78 362	800 142	4 529 533	5 054 916	9 631 300	X	X
311412	Frozen specialty food mfg	1998..	47 385	1 187 633	40 120	77 437	849 779	5 783 742	5 085 420	10 862 720	1	1
		1997..	48 059	1 152 373	40 144	77 278	807 671	5 405 505	4 797 043	10 199 245	X	X
31142	Fruit & vegetable canning, pickling, & drying	1998..	93 735	2 689 553	77 525	160 776	1 952 534	14 111 018	13 982 879	28 171 429	1	1
		1997..	97 842	2 710 087	80 639	162 789	1 952 473	13 568 001	13 563 116	27 122 345	X	X
311421	Fruit & vegetable canning	1998..	64 156	1 777 296	53 609	110 528	1 290 503	7 370 527	9 374 682	16 783 682	1	1
		1997..	64 016	1 726 293	52 884	106 367	1 241 683	7 017 553	8 977 673	15 978 798	X	X
311422	Specialty canning	1998..	16 210	538 217	13 127	28 809	409 878	5 382 851	2 930 626	8 312 562	1	1
		1997..	19 211	604 171	15 923	33 492	457 887	5 193 277	2 875 933	8 070 442	X	X
311423	Dried & dehydrated food mfg	1998..	13 370	374 039	10 789	21 439	252 153	1 357 640	1 677 570	3 075 185	2	4
		1997..	14 615	379 623	11 832	22 930	252 903	1 357 171	1 709 510	3 073 105	X	X
3115	Dairy product mfg	1998..	133 641	4 229 397	87 025	182 635	2 494 263	18 843 852	44 072 757	62 721 020	1	2
		1997..	133 127	4 183 182	85 398	180 715	2 437 094	17 738 935	41 335 068			

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NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—	
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F
311	Food mfg—Con.										
3116	Meat product mfg.....	1998.. 467 046	10 427 411	400 197	840 096	8 008 588	32 422 348	77 382 981	110 022 739	1	1
		1997.. 463 313	9 900 087	395 935	813 195	7 554 239	31 067 487	82 936 907	113 913 088	X	X
31161	Animal slaughtering & processing.....	1998.. 467 046	10 427 411	400 197	840 096	8 008 588	32 422 348	77 382 981	110 022 739	1	1
		1997.. 463 313	9 900 087	395 935	813 195	7 554 239	31 067 487	82 936 907	113 913 088	X	X
311611	Animal (except poultry) slaughtering	1998.. 139 430	3 371 106	120 687	273 414	2 668 740	7 756 347	42 226 084	50 102 027	1	1
		1997.. 142 421	3 257 763	121 514	266 753	2 532 951	8 526 565	45 998 059	54 505 340	X	X
311612	Meat processed from carcasses	1998.. 94 885	2 584 628	75 157	157 447	1 748 828	9 214 084	15 533 441	24 725 864	1	1
		1997.. 88 425	2 326 054	70 381	142 333	1 567 222	9 076 056	15 969 681	25 068 397	X	X
311613	Rendering & meat byproduct processing.....	1998.. 9 641	291 043	6 018	11 688	160 634	1 196 778	1 217 373	2 408 841	2	4
		1997.. 8 804	269 176	5 036	10 580	128 882	1 256 798	1 325 173	2 571 871	X	X
311615	Poultry processing	1998.. 223 090	4 180 635	198 334	397 547	3 430 385	14 255 140	18 406 084	32 786 006	1	1
		1997.. 223 663	4 047 094	199 004	393 529	3 325 184	12 208 068	19 643 994	31 767 480	X	X
3117	Seafood product preparation & packaging	1998.. 42 068	887 132	35 052	61 342	609 423	2 915 079	4 536 211	7 446 334	2	5
		1997.. 41 338	902 830	33 944	64 204	619 775	2 546 793	4 437 052	6 978 786	X	X
31171	Seafood product preparation & packaging	1998.. 42 068	887 132	35 052	61 342	609 423	2 915 079	4 536 211	7 446 334	2	5
		1997.. 41 338	902 830	33 944	64 204	619 775	2 546 793	4 437 052	6 978 786	X	X
311711	Seafood canning	1998.. 5 553	122 176	4 441	7 773	75 622	313 021	516 907	830 740	2	8
		1997.. 5 371	121 870	4 253	7 645	73 888	330 603	533 089	862 118	X	X
311712	Fresh & frozen seafood processing ..	1998.. 36 515	764 956	30 611	53 569	533 801	2 602 058	4 019 304	6 615 594	2	5
		1997.. 35 967	780 960	29 691	56 559	545 887	2 216 190	3 903 963	6 116 668	X	X
3118	Bakeries & tortilla mfg	1998.. 327 405	8 186 086	205 716	396 100	4 480 332	29 138 786	17 335 039	46 453 948	1	1
		1997.. 299 072	7 832 994	185 686	346 247	4 268 330	27 206 617	16 615 018	43 823 699	X	X
31181	Bread & bakery product mfg	1998.. 252 255	5 983 649	147 420	282 386	2 946 160	18 355 706	9 918 886	28 234 409	1	1
		1997.. 222 958	5 600 035	126 933	229 130	2 754 275	16 621 520	9 323 612	25 951 852	X	X
311811	Retail bakeries	1998.. 74 784	938 196	47 216	82 812	494 037	2 101 440	1 240 117	3 315 452	2	2
		1997.. 43 658	569 005	26 881	34 327	299 269	1 228 922	717 624	1 947 998	X	X
311812	Commercial bakeries	1998.. 162 862	4 660 148	88 366	175 915	2 189 185	14 847 868	7 550 704	22 384 666	1	1
		1997.. 164 193	4 637 526	87 710	170 197	2 176 830	14 009 220	7 445 414	21 459 323	X	X
311813	Frozen cakes, pies, & other pastries mfg	1998.. 14 609	385 305	11 838	23 658	262 937	1 406 398	1 128 064	2 534 291	6	2
		1997.. 15 107	393 504	12 342	24 606	278 176	1 383 378	1 160 574	2 544 531	X	X
31182	Cookie, cracker, & pasta mfg	1998.. 63 715	1 974 469	49 501	97 113	1 363 407	10 097 799	6 920 782	17 036 744	1	1
		1997.. 64 771	2 015 380	49 811	100 848	1 365 181	9 961 497	6 800 008	16 574 970	X	X
311821	Cookie & cracker mfg	1998.. 42 504	1 320 223	32 982	63 112	923 859	6 686 010	3 584 369	10 288 549	1	1
		1997.. 43 019	1 349 409	33 121	65 522	925 982	6 394 640	3 540 378	9 940 690	X	X
311822	Flour mixes & dough mfg from purchased flour	1998.. 15 470	494 558	11 946	25 126	330 422	2 429 771	2 651 979	5 085 324	1	1
		1997.. 15 689	491 511	12 024	25 958	323 370	2 521 559	2 543 790	5 047 752	X	X
311823	Dry pasta mfg	1998.. 5 741	159 688	4 573	8 875	109 127	982 018	684 434	1 662 870	1	1
		1997.. 5 063	174 460	4 666	9 368	115 829	1 045 298	715 840	1 766 528	X	X
31183	Tortilla mfg	1998.. 11 435	227 968	8 795	16 601	150 765	685 281	495 371	1 182 795	2	1
		1997.. 11 343	217 579	8 942	16 269	148 874	623 600	491 398	1 116 877	X	X
311830	Tortilla mfg	1998.. 11 435	227 968	8 795	16 601	150 765	685 281	495 371	1 182 795	2	1
		1997.. 11 343	217 579	8 942	16 269	148 874	623 600	491 398	1 116 877	X	X
3119	Other food mfg	1998.. 151 390	4 459 551	112 605	217 908	2 592 017	29 079 151	23 462 644	52 611 848	1	1
		1997.. 149 704	4 364 425	109 870	216 809	2 555 359	26 399 801	22 892 381	49 072 470	X	X
31191	Snack food mfg	1998.. 47 879	1 428 861	37 218	70 452	811 102	8 578 799	6 671 288	15 272 615	1	3
		1997.. 47 471	1 388 656	35 970	73 525	821 831	7 537 998	6 239 720	13 710 979	X	X
311911	Roasted nuts & peanut butter mfg ..	1998.. 10 723	296 536	8 236	17 472	182 081	1 760 607	2 611 603	4 410 202	1	8
		1997.. 10 493	272 890	7 862	16 762	172 492	1 588 257	2 429 724	3 991 180	X	X
311919	Other snack food mfg	1998.. 37 156	1 132 325	28 983	52 980	629 020	6 818 192	4 059 685	10 862 413	1	3
		1997.. 36 978	1 115 766	28 108	56 763	649 339	5 949 741	3 909 996	9 719 799	X	X
31192	Coffee & tea mfg	1998.. 12 864	425 680	8 196	16 220	229 177	3 534 234	4 169 291	7 736 421	1	1
		1997.. 12 895	445 357	8 134	16 538	254 555	3 644 653	4 401 171	7 974 921	X	X
311920	Coffee & tea mfg	1998.. 12 864	425 680	8 196	16 220	229 177	3 534 234	4 169 291	7 736 421	1	1
		1997.. 12 895	445 357	8 134	16 538	254 555	3 644 653	4 401 171	7 974 921	X	X
31193	Flavoring syrup & concentrate mfg ..	1998.. 5 854	218 162	3 233	6 409	109 204	6 186 936	1 701 030	7 893 887	3	1
		1997.. 6 243	225 770	3 348	6 839	111 627	4 945 331	1 648 212	6 590 816	X	X
311930	Flavoring syrup & concentrate mfg ..	1998.. 5 854	218 162	3 233	6 409	109 204	6 186 936	1 701 030	7 893 887	3	1
		1997.. 6 243	225 770	3 348	6 839	111 627	4 945 331	1 648 212	6 590 816	X	X
31194	Seasoning & dressing mfg	1998.. 25 748	916 661	18 338	36 890	520 149	5 123 371	5 234 280	10 355 806	2	2
		1997.. 26 145	901 252	17 923	34 974	491 893	5 120 497	5 003 338	10 052 063	X	X
311941	Mayonnaise, dressing, & other prepared sauce mfg	1998.. 13 662	434 374	10 525	21 750	286 768	2 968 145	3 060 039	6 030 533	3	1
		1997.. 13 927	443 903	10 448	20 212	286 515	2 945 653	2 860 124	5 810 400	X	X
311942	Spice & extract mfg	1998.. 12 086	482 287	7 813	15 141	233 380	2 155 227	2 174 241	4 325 273	2	5
		1997.. 12 218	457 349	7 475	14 762	205 378	2 174 844	2 143 214	4 242 023	X	X
31199	All other food mfg	1998.. 59 045	1 470 188	45 620	87 936	922 386	5 655 811	5 686 755	11 353 119	1	2
		1997.. 56 950	1 403 390	44 495	84 933	875 453	5 151 322	5 599 940	10 743 691	X	X
311991	Perishable prepared food mfg	1998.. 21 271	490 802	15 787	30 706	287 503	1 385 924	1 433 383	2 814 340	3	4
		1997.. 20 796	463 757	15 805	29 981	273 492	1 403 188	1 363 324	2 752 169	X	X
311999	All other miscellaneous food mfg	1998.. 37 774	979 385	29 833	57 230	634 884	4 269 887	4 253 372	8 538 779	1	2
		1997.. 36 154	939 633	28 690	54 952	601 961	3 748 134	4 236 616	7 991 522	X	X
312	Beverage & tobacco product mfg	1998.. 176 465	6 865 318	98 107	197 045	3 559 754	62 700 226	40 720 738	102 982 265	1	1
		1997.. 175 996	6 746 774	98 513	196 750	3 559 766	56 463 150	41 263 549	96 987 636	X	X
3121	Beverage mfg	1998.. 142 495	5 325 863	73 693	150 044	2 587 399	31 053 464	32 155 741	62 780 950	1	1
		1997.. 142 361	5 150 414	74 052	148 818	2 523 499	29 752 735	31 836 130	60 916 079	X	X
31211	Soft drink & ice mfg	1998.. 83 387	2 709 388	36 907	78 621	1 081 641	14 276 635	19 662 479	33 879 012	1	3
		1997.. 83 372	2 631 398	36 601	79 497	1 043 465	13 146 655	19 491 844	32 613 260	X	X
312111	Soft drink mfg	1998.. 73 698	2 443 957	31 969	68 354	959 623	13 504 356	19 058 365	32 518 072	2	3
		1997.. 73 449	2 380 796								

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		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				F	G	H	A	F
													A	B
312	Beverage & tobacco product mfg—Con.													
3121	Beverage mfg—Con.													
31214	Distilleries	1998.. 6 495	255 449	4 633	9 481	160 376	2 215 349	1 738 238	3 892 051	1	1			
		1997.. 6 545	252 392	4 674	9 737	158 370	2 210 538	1 713 312	3 904 763	X	X			
312140	Distilleries	1998.. 6 495	255 449	4 633	9 481	160 376	2 215 349	1 738 238	3 892 051	1	1			
		1997.. 6 545	252 392	4 674	9 737	158 370	2 210 538	1 713 312	3 904 763	X	X			
3122	Tobacco mfg	1998.. 33 970	1 539 455	24 414	47 000	972 355	31 646 762	8 564 997	40 201 315	1	1			
		1997.. 33 635	1 596 360	24 461	47 932	1 036 267	26 710 415	9 427 419	36 071 557	X	X			
31221	Tobacco stemming & redrying	1998.. 5 498	130 582	3 973	8 743	70 671	733 200	2 854 943	3 567 304	1	1			
		1997.. 5 085	115 795	3 698	7 685	64 504	646 447	2 750 075	3 325 400	X	X			
312210	Tobacco stemming & redrying	1998.. 5 498	130 582	3 973	8 743	70 671	733 200	2 854 943	3 567 304	1	1			
		1997.. 5 085	115 795	3 698	7 685	64 504	646 447	2 750 075	3 325 400	X	X			
31222	Tobacco product mfg	1998.. 28 472	1 408 873	20 441	38 257	901 684	30 913 562	5 710 054	36 634 011	1	1			
		1997.. 28 550	1 480 565	20 763	40 247	971 763	26 063 968	6 677 344	32 746 157	X	X			
312221	Cigarette mfg	1998.. 20 553	1 158 857	14 223	25 684	732 876	27 982 514	4 805 830	32 806 662	1	1			
		1997.. 21 302	1 246 557	15 096	28 887	816 131	23 338 692	5 901 854	29 252 787	X	X			
312229	Other tobacco product mfg	1998.. 7 919	250 016	6 218	12 573	168 808	2 931 048	904 224	3 827 349	2	1			
		1997.. 7 248	234 008	5 667	11 360	155 632	2 725 276	775 490	3 493 370	X	X			
313	Textile mills	1998.. 379 775	9 898 685	321 753	670 941	7 368 498	23 985 771	33 869 094	57 625 637	1	1			
		1997.. 393 473	10 094 773	333 601	696 754	7 467 867	23 773 739	34 948 789	58 589 910	X	X			
3131	Fiber, yarn, & thread mills	1998.. 81 277	1 905 753	72 767	154 537	1 586 891	4 330 783	8 552 938	12 761 471	1	1			
		1997.. 83 259	1 908 390	74 831	157 906	1 576 045	4 222 607	8 622 206	12 902 907	X	X			
31311	Fiber, yarn, & thread mills	1998.. 81 277	1 905 753	72 767	154 537	1 586 891	4 330 783	8 552 938	12 761 471	1	1			
		1997.. 83 259	1 908 390	74 831	157 906	1 576 045	4 222 607	8 622 206	12 902 907	X	X			
313111	Yarn spinning mills	1998.. 57 820	1 333 391	51 979	111 738	1 127 514	2 993 319	5 072 640	7 989 528	1	1			
		1997.. 59 272	1 349 616	53 464	113 937	1 139 561	3 002 848	5 176 796	8 219 926	X	X			
313112	Yarn texturing, throwing, & twisting mills	1998.. 19 412	483 804	17 195	35 303	390 824	1 176 092	3 031 619	4 158 454	1	1			
		1997.. 20 256	478 414	18 044	36 910	374 482	3 058 838	4 153 549	4 153 549	X	X			
313113	Thread mills	1998.. 4 044	88 558	3 593	7 496	68 553	161 372	448 678	613 489	1	1			
		1997.. 3 731	80 360	3 323	7 059	62 002	144 561	386 572	529 432	X	X			
3132	Fabric mills	1998.. 211 882	5 589 332	179 755	370 533	4 183 030	12 877 969	16 768 698	29 603 087	1	1			
		1997.. 217 971	5 624 530	184 848	383 949	4 208 436	12 600 299	17 299 769	29 977 910	X	X			
31321	Broadwoven fabric mills	1998.. 130 041	3 431 725	114 063	236 407	2 728 043	7 759 664	10 454 409	18 155 180	1	1			
		1997.. 132 895	3 435 719	115 874	242 024	2 729 739	7 492 174	10 645 060	18 241 083	X	X			
313210	Broadwoven fabric mills	1998.. 130 041	3 431 725	114 063	236 407	2 728 043	7 759 664	10 454 409	18 155 180	1	1			
		1997.. 132 895	3 435 719	115 874	242 024	2 729 739	7 492 174	10 645 060	18 241 083	X	X			
31322	Narrow fabric mills & schiffli machine embroidery	1998.. 19 922	444 495	16 193	33 987	305 956	929 670	731 435	1 665 050	2	3			
		1997.. 20 514	450 316	16 960	34 838	310 161	973 947	698 790	1 672 023	X	X			
313221	Narrow fabric mills	1998.. 16 155	367 543	13 108	27 774	252 463	777 113	659 066	1 435 549	2	4			
		1997.. 16 584	371 752	13 662	28 218	254 283	798 445	611 786	1 409 665	X	X			
313222	Schiffli machine embroidery	1998.. 3 767	76 953	3 084	6 214	53 493	152 557	72 369	229 501	6	8			
		1997.. 3 930	78 564	3 298	6 620	55 878	175 502	87 004	262 358	X	X			
31323	Nonwoven fabric mills	1998.. 20 579	714 033	14 942	31 094	444 437	1 925 377	2 466 914	4 394 388	1	1			
		1997.. 21 014	689 402	15 742	32 978	425 912	1 744 447	2 636 017	4 349 721	X	X			
313230	Nonwoven fabric mills	1998.. 20 579	714 033	14 942	31 094	444 437	1 925 377	2 466 914	4 394 388	1	1			
		1997.. 21 014	689 402	15 742	32 978	425 912	1 744 447	2 636 017	4 349 721	X	X			
31324	Knit fabric mills	1998.. 41 341	999 079	34 558	69 045	704 593	2 263 257	3 115 940	5 388 469	1	1			
		1997.. 43 548	1 049 093	36 272	74 109	742 624	2 389 731	3 319 902	5 715 083	X	X			
313241	Weft knit fabric mills	1998.. 24 446	576 693	20 426	40 590	404 450	1 133 971	1 825 449	2 966 479	1	3			
		1997.. 24 903	578 598	20 765	42 291	409 853	1 149 185	1 936 289	3 089 010	X	X			
313249	Other knit fabric & lace mills	1998.. 16 895	422 386	14 132	28 456	300 143	1 129 287	1 290 941	2 421 991	1	1			
		1997.. 18 645	470 495	15 507	31 818	332 771	1 240 546	1 383 613	2 626 073	X	X			
3133	Textile & fabric finishing & fabric coating mills	1998.. 86 616	2 403 600	69 231	145 871	1 598 577	6 777 019	8 547 459	15 261 079	3	3			
		1997.. 92 243	2 561 853	73 922	154 899	1 683 386	6 950 833	9 026 814	15 979 093	X	X			
31331	Textile & fabric finishing mills	1998.. 75 175	2 004 459	60 765	128 210	1 349 985	5 782 834	7 155 162	12 867 196	3	4			
		1997.. 80 651	2 174 274	65 626	137 982	1 458 656	6 034 070	7 682 573	13 719 747	X	X			
313311	Broadwoven fabric finishing mills	1998.. 48 190	1 310 699	38 389	81 634	883 823	3 899 301	5 090 397	8 913 915	5	6			
		1997.. 51 174	1 424 561	40 774	86 152	948 282	4 076 702	5 233 160	9 331 870	X	X			
313312	Textile & fabric finishing mills	1998.. 26 985	693 760	22 376	46 576	466 161	1 883 532	2 064 764	3 953 281	2	3			
		1997.. 29 477	749 713	24 852	51 830	510 374	1 957 368	2 449 413	4 387 877	X	X			
31332	Fabric coating mills	1998.. 11 441	399 141	8 466	17 661	248 593	994 186	1 392 297	2 393 883	3	5			
		1997.. 11 592	387 579	8 296	16 917	224 730	916 763	1 344 241	2 259 346	X	X			
313320	Fabric coating mills	1998.. 11 441	399 141	8 466	17 661	248 593	994 186	1 392 297	2 393 883	3	5			
		1997.. 11 592	387 579	8 296	16 917	224 730	916 763	1 344 241	2 259 346	X	X			
314	Textile product mills	1998.. 232 167	5 122 666	187 961	361 928	3 468 740	13 428 038	18 056 280	31 456 977	1	2			
		1997.. 235 489	5 098 292	188 965	368 583	3 415 134	13 615 386	17 596 581	30 980 443	X	X			
3141	Textile furnishings mills	1998.. 126 749	2 809 522	104 050	203 402	1 982 137	8 585 296	12 304 151	20 842 440	1	3			
		1997.. 126 911	2 769 273	103 063	208 258	1 929 130	8 629 554	11 969 701	20 409 016	X	X			
31411	Carpet & rug mills	1998.. 53 027	1 364 049	42 970	87 802	977 689	4 872 036	7 338 833	12 154 905	1	1			
		1997.. 52 238	1 333 603	41 122	89 790	929 126	4 542 198	7 081 950	11 580 654	X	X			
314110	Carpet & rug mills	1998.. 53 027	1 364 049	42 970	87 802	977 689	4 872 036	7 338 833	12 154 905	1	1			
		1997.. 52 238	1 333 603	41 122	89 790	929 126	4 542 198	7 081 950	11 580 654	X	X			
31412	Curtain & linen mills	1998.. 73 722	1 445 472	61 080	115 600	1 004 449	3 713 260	4 965 318	8 687 535	2	6			
		1997.. 74 673	1 435 670	61 941	118 468	1 000 004	4 087 356	4 887 751	8 828 362	X	X			
314121	Curtain & drapery mills	1998.. 27 015	498 173	20 864	38 205	303 865	1 078 502	1 014 446	2 093 323	3	6			
		1997.. 25 508	452 819	19 859	35 112	276 089	948 218	927 598	1 863 111	X	X			
314129	Other household textile product mills	1998.. 46 706	947 299	40 216	77 395	700 583	2 634 758	3 950 872	6 594 212	2	8			
		1997.. 49 165	982 851	42 082	83 356	723 915	3 139 198	3 960 153	6 965 251	X	X			
3149	Other textile product mills	1998.. 105 418	2 313 145	83 912	158 525	1 486 603	4 842 742	5 752 129	10 614 537	1	2			
		1997.. 108 578	2 329 019	85 902	160 325	1 486 004	4 98							

Table 2. Statistics for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—		
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F	
		A	B	C	D	E						
314	Textile product mills—Con.											
3149	Other textile product mills—Con.											
31499	All other textile product mills—Con.											
314999	All other miscellaneous textile product mills	1998..	61 389	1 316 979	49 177	92 539	867 290	2 814 199	3 208 860	6 014 289	2	4
		1997..	64 203	1 347 086	50 859	95 509	878 490	2 911 409	3 244 353	6 145 225	X	X
315	Apparel mfg	1998..	661 266	12 144 756	551 080	1 007 542	8 475 314	32 078 596	33 440 648	65 529 625	1	1
		1997..	718 165	12 728 242	597 444	1 070 300	8 882 868	33 872 393	34 934 094	68 334 857	X	X
3151	Apparel knitting mills	1998..	94 052	1 886 744	83 323	163 367	1 471 750	4 621 817	5 253 010	9 855 594	1	2
		1997..	105 580	2 042 388	93 559	180 236	1 606 480	5 280 822	5 594 893	10 854 023	X	X
31511	Hosiery & sock mills	1998..	49 170	978 339	43 750	85 574	770 804	2 124 100	2 276 957	4 434 360	2	2
		1997..	53 222	995 834	47 315	91 799	784 138	2 216 894	2 383 364	4 603 850	X	X
315111	Sheer hosiery mills	1998..	15 098	306 355	13 408	27 216	244 088	685 773	747 160	1 442 777	2	1
		1997..	17 579	340 090	15 690	31 165	270 937	750 213	817 542	1 582 474	X	X
315119	Other hosiery & sock mills	1998..	34 073	671 983	30 341	58 358	526 717	1 438 328	1 529 797	2 991 583	3	3
		1997..	35 643	655 744	31 625	60 634	513 201	1 466 681	1 565 822	3 021 376	X	X
31519	Other apparel knitting mills	1998..	44 882	908 405	39 573	77 793	700 946	2 497 716	2 976 053	5 421 234	1	2
		1997..	52 358	1 046 554	46 244	88 437	822 342	3 063 928	3 211 529	6 250 173	X	X
315191	Outerwear knitting mills	1998..	38 216	783 122	33 796	67 152	605 393	2 052 482	2 603 587	4 627 928	1	3
		1997..	45 417	916 152	40 277	77 162	723 414	2 685 026	2 899 690	5 564 139	X	X
315192	Underwear & nightwear knitting mills	1998..	6 666	125 283	5 777	10 641	95 553	445 235	372 465	793 306	1	5
		1997..	6 941	130 402	5 967	11 275	98 928	378 902	311 839	686 034	X	X
3152	Cut & sew apparel mfg	1998..	512 830	9 183 123	424 325	763 810	6 328 439	24 912 779	25 870 406	50 817 957	1	1
		1997..	556 776	9 590 440	459 650	810 667	6 600 018	26 005 097	26 985 177	52 540 645	X	X
31521	Cut & sew apparel contractors	1998..	164 459	2 243 991	147 884	254 541	1 873 051	3 859 846	1 490 800	5 353 949	2	2
		1997..	199 873	2 602 151	179 173	298 661	2 154 214	4 518 365	1 125 718	5 595 542	X	X
315211	Men's & boys' cut & sew apparel contractors	1998..	43 274	647 039	39 360	70 949	546 946	1 195 039	558 977	1 748 040	6	3
		1997..	50 956	700 107	45 950	79 412	584 264	1 280 629	273 091	1 547 847	X	X
315212	Women's, girls', & infants' cut & sew apparel contractors	1998..	121 185	1 596 952	108 525	183 592	1 326 105	2 664 807	931 823	3 605 910	2	3
		1997..	148 917	1 902 044	133 223	219 249	1 569 950	3 237 736	852 627	4 047 695	X	X
31522	Men's & boys' cut & sew apparel mfg ..	1998..	166 584	2 978 738	141 794	261 112	2 238 668	9 605 584	9 630 465	19 374 942	1	2
		1997..	174 138	3 032 983	148 317	269 922	2 257 450	9 706 529	10 474 620	19 984 108	X	X
315221	Men's & boys' cut & sew underwear & nightwear mfg	1998..	8 003	133 894	6 883	12 883	108 110	468 056	355 532	816 144	1	3
		1997..	9 771	162 648	8 517	15 883	133 511	815 876	603 895	1 405 051	X	X
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	1998..	21 253	439 244	17 111	33 134	309 253	1 021 921	927 716	1 939 619	1	2
		1997..	22 310	466 734	17 796	33 418	322 627	1 112 131	1 023 175	2 086 808	X	X
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	1998..	43 164	796 865	35 987	66 019	566 167	2 520 499	3 203 058	5 729 084	2	3
		1997..	48 389	859 168	40 649	73 376	624 203	2 483 089	3 085 927	5 564 079	X	X
315224	Men's & boys' cut & sew trouser, slack, & jean mfg	1998..	46 990	858 099	42 034	78 938	695 596	3 817 633	3 337 979	7 179 569	1	1
		1997..	45 219	775 607	40 507	74 012	624 538	3 392 475	3 841 987	7 152 379	X	X
315225	Men's & boys' cut & sew work clothing mfg	1998..	22 950	336 270	19 755	33 491	257 208	837 746	794 703	1 770 151	2	18
		1997..	23 363	347 030	19 895	34 461	252 503	998 694	903 949	1 869 132	X	X
315228	Men's & boys' cut & sew other outerwear mfg	1998..	24 224	414 366	20 025	36 647	302 334	939 728	1 011 477	1 940 376	1	3
		1997..	25 086	421 796	20 953	38 772	300 068	904 264	1 015 687	1 906 659	X	X
31523	Women's & girls' cut & sew apparel mfg	1998..	157 456	3 495 153	115 930	215 147	1 935 115	10 238 574	13 614 074	23 820 923	1	1
		1997..	157 507	3 488 660	112 189	205 078	1 895 850	10 601 665	14 335 119	24 768 362	X	X
315231	Women's & girls' cut/sew lingerie & nightwear mfg	1998..	22 223	404 722	17 206	32 454	266 476	1 639 448	1 924 618	3 574 165	3	4
		1997..	24 610	423 442	19 057	36 668	268 570	1 523 453	2 035 778	2 78 570	X	X
315232	Women's & girls' cut & sew blouse & shirt mfg	1998..	29 118	704 334	20 782	35 995	346 144	1 896 007	2 598 088	4 428 397	3	1
		1997..	26 178	553 543	19 197	32 990	301 792	1 665 667	2 390 277	3 991 959	X	X
315233	Women's & girls' cut & sew dress mfg	1998..	30 743	795 641	20 738	39 638	411 127	2 004 496	2 911 006	4 920 825	3	2
		1997..	29 503	736 916	18 781	33 592	373 592	2 124 907	3 142 354	5 204 492	X	X
315234	Women's & girls' cut & sew suit, coat, skirt mfg	1998..	18 646	491 198	11 828	20 507	226 640	1 375 255	2 017 655	3 451 579	2	2
		1997..	20 363	530 011	12 977	23 263	247 652	1 657 643	2 185 715	3 764 320	X	X
315239	Women's & girls' cut & sew other outerwear mfg	1998..	56 726	1 099 258	45 376	86 554	684 727	3 323 369	4 162 707	7 445 956	1	2
		1997..	56 853	1 244 748	42 177	78 565	696 019	3 629 995	4 580 995	8 160 059	X	X
31529	Other cut & sew apparel mfg	1998..	24 331	465 241	18 716	33 010	281 606	1 208 774	1 135 066	2 268 143	2	10
		1997..	25 258	466 646	19 971	37 006	292 504	1 178 538	1 049 720	2 192 633	X	X
315291	Infants' cut & sew apparel mfg	1998..	8 903	159 054	6 911	12 982	104 361	468 852	524 446	1 019 464	1	14
		1997..	9 457	152 721	7 879	15 425	112 899	487 099	457 862	945 119	X	X
315292	Fur & leather apparel mfg	1998..	1 714	41 939	1 281	2 621	24 204	103 334	118 896	221 818	17	10
		1997..	2 136	46 487	1 613	2 990	27 592	116 620	133 309	249 030	X	X
315299	All other cut & sew apparel mfg	1998..	13 713	264 248	10 524	17 408	153 041	636 589	491 724	1 026 861	2	15
		1997..	13 665	267 438	10 479	18 591	152 013	574 819	458 549	998 484	X	X
3159	Apparel accessories & other apparel mfg	1998..	54 384	1 074 889	43 432	80 365	675 125	2 544 000	2 317 232	4 856 074	1	3
		1997..	55 809	1 095 414	44 235	79 397	676 370	2 586 474	2 354 024	4 940 189	X	X
31599	Apparel accessories & other apparel mfg	1998..	54 384	1 074 889	43 432	80 365	675 125	2 544 000	2 317 232	4 856 074	1	3
		1997..	55 809	1 095 414	44 235	79 397	676 370	2 586 474	2 354 024	4 940 189	X	X
315991	Hat, cap, & millinery mfg	1998..	17 015	307 176	13 886	25 899	222 133	658 997	376 496	1 037 334	2	7
		1997..	17 543	307 966	14 329	26 105	217 860	578 420	399 227	984 436	X	X
315992	Glove & mitten mfg	1998..	5 971	116 454	4 973	10 700	77 878	384 534	293 266	689 356	7	9
		1997..	6 526	121 217	5 409	10 025	80 500	339 947	338 920	677 924	X	X
315993	Men's & boys' neckwear mfg	1998..	4 985	123 696	3 823	6 281	63 193	292 270	278 382	561 778	1	5
		1997..	4 936	117 274	3 820	6 359	61 907	330 533	270 002	598 457	X	X
315999	Other apparel accessories & other apparel mfg	1998..	26 413	527 564	20 750	37 485	311 920	1 208 197	1 369 088	2 567 606	1	2
		1997..	26 804	548 957	20 677	36 908	316 103	1 337 574	1 345 875	2 679 372	X	X
316	Leather & allied product mfg	1998..	81 177	1 807 484	65 770	129 462	1 169 456	4 845 990	5 512 099	10 316 595	1	3
		1997..	86 428	1 863 422	69 580	135 204	1 198 777	5 097 859	5 817 605	10 899 471	X	X

Table 2. Statistics for Industry Groups and Industries: 1998 and 1997—Con.

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NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—	
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F
		A	B	C	D	E					
316	Leather & allied product mfg—Con.										
3161	Leather & hide tanning & finishing	1998.. 15 545	432 890	12 838	26 042	305 678	1 058 268	2 297 681	3 348 392	1	2
		1997.. 15 317	423 993	12 425	25 090	303 614	1 030 694	2 325 541	3 366 752	X	X
31611	Leather & hide tanning & finishing	1998.. 15 545	432 890	12 838	26 042	305 678	1 058 268	2 297 681	3 348 392	1	2
		1997.. 15 317	423 993	12 425	25 090	303 614	1 030 694	2 325 541	3 366 752	X	X
316110	Leather & hide tanning & finishing	1998.. 15 545	432 890	12 838	26 042	305 678	1 058 268	2 297 681	3 348 392	1	2
		1997.. 15 317	423 993	12 425	25 090	303 614	1 030 694	2 325 541	3 366 752	X	X
3162	Footwear mfg	1998.. 37 683	787 647	31 138	60 278	514 578	1 836 157	1 934 622	3 784 324	2	8
		1997.. 42 359	837 778	35 209	67 535	550 650	2 265 274	2 200 635	4 431 609	X	X
31621	Footwear mfg	1998.. 37 683	787 647	31 138	60 278	514 578	1 836 157	1 934 622	3 784 324	2	8
		1997.. 42 359	837 778	35 209	67 535	550 650	2 265 274	2 200 635	4 431 609	X	X
316211	Rubber & plastics footwear mfg	1998.. 8 198	192 220	6 688	13 447	125 022	584 389	542 972	1 430 220	3	3
		1997.. 8 292	168 185	6 890	14 467	119 135	519 953	498 663	1 009 838	X	X
316212	House slipper mfg	1998.. 2 246	46 786	1 810	3 771	28 183	109 455	122 363	234 684	5	3
		1997.. 2 501	51 471	1 960	4 303	30 799	147 572	125 482	263 816	X	X
316213	Men's footwear (except athletic) mfg	1998.. 15 073	318 261	12 240	22 902	203 789	710 999	1 002 225	1 707 639	5	15
		1997.. 17 797	378 083	14 628	26 595	244 998	1 111 465	1 156 344	2 240 281	X	X
316214	Women's footwear (except athletic) mfg	1998.. 9 370	179 913	8 089	15 721	122 819	285 439	199 932	506 415	1	32
		1997.. 10 442	183 020	8 905	16 988	114 011	373 803	322 851	703 653	X	X
316219	Other footwear mfg	1998.. 2 796	50 467	2 311	4 437	34 764	132 967	80 237	205 366	12	14
		1997.. 3 327	57 019	2 826	5 182	41 707	112 481	97 295	214 021	X	X
3169	Other leather & allied product mfg	1998.. 27 949	586 947	21 793	43 143	349 200	1 951 565	1 279 797	3 183 878	1	1
		1997.. 28 752	601 651	21 946	42 579	344 513	1 801 891	1 291 429	3 101 110	X	X
31699	Other leather & allied product mfg	1998.. 27 949	586 947	21 793	43 143	349 200	1 951 565	1 279 797	3 183 878	1	1
		1997.. 28 752	601 651	21 946	42 579	344 513	1 801 891	1 291 429	3 101 110	X	X
316991	Luggage mfg	1998.. 9 380	215 414	6 827	13 352	112 967	956 180	565 251	1 471 281	3	1
		1997.. 9 655	221 927	7 038	13 720	116 075	862 626	572 046	1 433 544	X	X
316992	Women's handbag & purse mfg	1998.. 3 775	83 624	2 840	5 352	47 983	233 557	127 963	361 776	4	5
		1997.. 3 783	97 341	2 859	5 699	49 937	225 468	164 032	393 514	X	X
316993	Personal leather good (except women's handbag & purse) mfg	1998.. 4 948	98 352	3 944	8 265	62 388	234 405	169 649	405 862	2	2
		1997.. 4 950	92 068	3 726	7 273	54 747	192 160	144 720	338 848	X	X
316999	All other leather good mfg	1998.. 9 846	189 557	8 183	16 174	125 861	527 423	416 933	944 959	3	2
		1997.. 10 364	190 315	8 323	15 887	123 754	521 637	410 631	935 204	X	X
321	Wood product mfg	1998.. 586 390	15 308 325	491 385	991 687	11 285 472	34 694 379	57 310 088	92 142 201	1	1
		1997.. 573 616	14 406 091	479 446	954 443	10 630 295	33 718 678	55 673 892	89 064 074	X	X
3211	Sawmills & wood preservation	1998.. 132 594	3 580 154	113 388	239 242	2 812 598	8 201 724	19 941 562	28 376 510	1	2
		1997.. 131 016	3 480 579	112 011	230 865	2 718 307	9 492 835	19 834 410	29 144 152	X	X
32111	Sawmills & wood preservation	1998.. 132 594	3 580 154	113 388	239 242	2 812 598	8 201 724	19 941 562	28 376 510	1	2
		1997.. 131 016	3 480 579	112 011	230 865	2 718 307	9 492 835	19 834 410	29 144 152	X	X
321113	Sawmills	1998.. 120 369	3 271 518	103 801	220 314	2 615 564	7 406 415	16 271 534	23 858 634	1	2
		1997.. 119 348	3 182 456	102 837	212 301	2 528 493	8 532 079	16 271 977	24 682 631	X	X
321114	Wood preservation	1998.. 12 225	308 636	9 587	18 927	197 035	795 308	3 670 029	4 517 876	3	8
		1997.. 11 668	298 123	9 174	18 564	189 814	960 756	3 562 433	4 461 521	X	X
3212	Veneer, plywood, & engineered wood product mfg	1998.. 114 968	3 365 653	96 099	207 875	2 491 931	7 876 894	12 354 794	20 237 754	1	1
		1997.. 114 165	3 187 249	95 124	202 784	2 373 877	7 256 281	11 768 593	18 958 200	X	X
32121	Veneer, plywood, & engineered wood product mfg	1998.. 114 968	3 365 653	96 099	207 875	2 491 931	7 876 894	12 354 794	20 237 754	1	1
		1997.. 114 165	3 187 249	95 124	202 784	2 373 877	7 256 281	11 768 593	18 958 200	X	X
321211	Hardwood veneer & plywood mfg	1998.. 11 975	558 867	19 303	39 485	415 002	1 162 335	1 866 680	3 005 254	1	2
		1997.. 22 225	527 527	19 400	39 759	392 381	1 126 758	1 763 056	2 878 567	X	X
321212	Softwood veneer & plywood mfg	1998.. 27 941	905 232	25 343	57 619	614 232	1 645 232	4 086 205	5 772 788	1	2
		1997.. 28 678	907 126	25 969	60 101	784 972	1 725 798	3 984 982	5 704 877	X	X
321213	Engineered wood member (except truss) mfg	1998.. 5 811	173 489	4 869	10 887	132 829	560 184	1 066 818	1 620 870	1	2
		1997.. 5 372	154 564	4 469	9 701	118 939	476 346	974 548	1 431 123	X	X
321214	Truss mfg	1998.. 34 525	918 374	26 371	55 216	557 265	1 873 911	2 206 468	4 070 526	3	3
		1997.. 32 617	799 510	24 699	48 149	481 465	1 610 011	2 066 206	3 669 838	X	X
321219	Reconstituted wood product mfg	1998.. 24 719	809 891	20 213	44 658	604 647	2 635 232	3 128 624	5 768 316	1	1
		1997.. 25 273	798 522	20 587	45 074	596 120	2 317 368	2 979 711	5 273 795	X	X
3219	Other wood product mfg	1998.. 338 827	8 362 517	281 898	544 570	5 980 943	18 615 762	25 013 731	43 527 938	1	1
		1997.. 328 435	7 738 263	272 311	520 794	5 538 111	16 969 562	24 070 979	40 961 722	X	X
32191	Millwork	1998.. 146 134	3 723 780	121 677	237 807	2 725 247	8 257 806	12 017 246	20 252 301	1	1
		1997.. 142 426	3 483 157	118 385	231 768	2 553 805	7 610 489	11 805 215	19 360 174	X	X
321911	Wood window & door mfg	1998.. 67 136	1 887 687	54 532	104 277	1 344 877	4 254 509	5 307 507	9 557 502	1	1
		1997.. 64 650	1 729 869	52 329	103 237	1 237 024	3 810 453	5 061 839	8 881 456	X	X
321912	Cut stock, resawing lumber, & planing	1998.. 39 975	925 022	34 567	68 438	705 165	2 063 962	3 968 551	6 019 173	2	4
		1997.. 39 740	887 954	34 370	67 259	682 864	1 962 237	4 040 074	5 976 860	X	X
321918	Other millwork (including flooring)	1998.. 39 022	911 071	32 579	65 092	675 205	1 939 335	2 741 187	4 675 626	1	1
		1997.. 38 036	865 334	31 686	61 272	633 917	1 837 799	2 703 302	4 501 858	X	X
32192	Wood container & pallet mfg	1998.. 52 835	1 037 888	44 717	84 639	738 821	2 132 644	2 596 930	4 706 484	2	1
		1997.. 51 403	975 479	43 266	79 392	692 419	2 006 979	2 503 652	4 504 883	X	X
321920	Wood container & pallet mfg	1998.. 52 835	1 037 888	44 717	84 639	738 821	2 132 644	2 596 930	4 706 484	2	1
		1997.. 51 403	975 479	43 266	79 392	692 419	2 006 979	2 503 652	4 504 883	X	X
32199	All other wood product mfg	1998.. 139 859	3 600 849	115 503	222 124	2 516 875	8 225 311	10 399 555	18 569 153	1	1
		1997.. 134 606	3 279 627	110 660	209 634	2 291 887	7 352 094	9 762 112	17 096 665	X	X
321991	Manufactured home (mobile home) mfg	1998.. 71 576	2 014 339	60 545	117 150	1 427 466	4 549 241	6 573 723	11 103 475	2	1
		1997.. 67 847	1 781 359	57 304	108 723	1 277 112	4 031 043	6 121 947	10 147 276	X	X
321992	Prefabricated wood building mfg	1998.. 23 423	614 151	17 518	34 798	380 865	1 451 250	1 858 771	3 296 264	3	3
		1997.. 23 010	582 740	16 980	33 105	350 285	1 263 735	1 764 934	3 029 856	X	X
321999	All other miscellaneous wood product mfg	1998.. 44 859	972 360	37 440	70 177	708 544	2 224 821	1 967 061	4 169 414	1	2
		1997.. 43 749	915 528	36 376	67 806	664 490	2 057 316	1 875 231	3 919 533	X	X
322	Paper mfg	1998.. 576 114	22 656 607								

Table 2. Statistics for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—				
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				F	G	H	A	F
													A	B
322	Paper mfg—Con.													
3221	Pulp, paper, & paperboard mills—Con.													
32212	Paper mills	129 888	6 470 243	101 908	218 755	4 742 073	23 411 366	22 983 849	46 213 105	1	1			
	1997..	135 356	6 759 929	105 920	230 669	4 900 577	23 737 046	23 257 237	46 926 829	X	X			
322121	Paper (except newsprint) mills	117 183	5 765 217	92 136	197 622	4 227 250	20 729 378	20 295 658	40 826 911	1	1			
	1997..	122 306	6 041 365	95 875	208 825	4 376 684	21 184 341	20 631 178	41 731 438	X	X			
322122	Newsprint mills	12 705	705 026	9 772	21 133	514 822	2 681 988	2 688 191	5 386 194	1	2			
	1997..	13 050	718 564	10 045	21 844	523 893	2 552 705	2 626 059	5 195 391	X	X			
32213	Paperboard mills	53 642	2 706 086	41 249	90 132	1 925 658	10 112 827	10 793 710	20 890 267	1	1			
	1997..	54 424	2 662 964	41 699	92 691	1 907 480	8 991 186	11 050 064	20 026 697	X	X			
322130	Paperboard mills	53 642	2 706 086	41 249	90 132	1 925 658	10 112 827	10 793 710	20 890 267	1	1			
	1997..	54 424	2 662 964	41 699	92 691	1 907 480	8 991 186	11 050 064	20 026 697	X	X			
3222	Converted paper product mfg	382 692	12 955 739	291 177	610 272	8 442 923	37 740 208	47 587 735	85 205 270	1	1			
	1997..	376 108	12 444 498	286 217	599 333	8 072 418	35 847 355	44 531 193	80 203 066	X	X			
32221	Paperboard container mfg	213 453	7 308 960	162 921	341 487	4 726 206	17 136 077	26 686 008	43 748 760	1	2			
	1997..	208 541	6 980 549	159 098	334 804	4 487 100	16 273 184	23 957 071	40 194 202	X	X			
322211	Corrugated & solid fiber box mfg	129 976	4 495 242	95 341	200 530	2 748 036	10 272 931	18 152 933	28 411 161	1	2			
	1997..	124 916	4 270 844	91 614	191 414	2 583 395	9 648 403	15 990 858	25 616 903	X	X			
322212	Folding paperboard box mfg	51 571	1 825 818	41 239	86 669	1 257 457	4 221 871	5 146 072	9 397 376	2	1			
	1997..	51 046	1 765 836	40 541	88 731	1 207 705	4 150 133	4 862 214	9 020 397	X	X			
322213	Setup paperboard box mfg	S	S	S	S	S	S	S	S	11	S			
	1997..	6 194	146 095	4 894	9 508	91 745	305 517	221 065	522 643	X	X			
322214	Fiber can, tube, drum, & similar products mfg	11 261	374 719	9 392	19 710	268 884	1 009 015	1 375 433	2 377 381	2	2			
	1997..	11 461	354 514	9 451	19 223	260 782	1 338 180	1 375 433	2 289 791	X	X			
322215	Nonfolding sanitary food container mfg	14 851	451 284	12 759	25 749	346 269	1 319 221	1 674 365	2 997 199	1	10			
	1997..	14 924	443 260	12 598	25 928	343 473	1 217 957	1 544 754	2 744 468	X	X			
32222	Paper bag & coated & treated paper mfg	76 779	2 758 838	56 810	120 217	1 752 053	8 950 444	10 821 229	19 765 666	1	1			
	1997..	75 697	2 652 600	55 924	120 549	1 679 768	8 745 004	10 750 249	19 455 030	X	X			
322221	Coated & laminated packaging paper & plastics film mfg	5 005	176 357	3 836	7 740	114 572	545 382	908 544	1 456 701	8	7			
	1997..	5 416	184 801	4 195	9 164	124 117	544 767	960 990	1 498 918	X	X			
322222	Coated & laminated paper mfg	42 994	1 656 756	29 870	62 740	988 337	6 003 278	6 132 317	12 125 364	1	1			
	1997..	41 771	1 559 509	28 769	61 833	922 922	5 865 277	6 041 634	11 897 154	X	X			
322223	Plastics, foil, & coated paper bag mfg	3 137	96 650	2 271	4 618	61 283	249 411	252 900	505 218	2	3			
	1997..	3 005	94 736	2 175	4 392	55 595	240 625	249 990	489 987	X	X			
322224	Uncoated paper & multiwall bag mfg	17 535	497 915	14 866	31 868	372 252	1 165 897	1 788 405	2 960 319	2	1			
	1997..	17 244	475 935	14 566	31 169	355 211	1 153 558	1 725 467	2 869 395	X	X			
322225	Laminated aluminum foil mfg for flexible packaging uses	4 828	207 621	3 477	7 687	142 257	632 563	975 726	1 606 421	1	7			
	1997..	4 967	211 497	3 742	8 458	146 373	585 978	973 158	1 546 143	X	X			
322226	Surface-coated paperboard mfg	3 280	123 539	2 490	5 564	73 351	353 915	763 336	1 111 644	1	2			
	1997..	3 294	126 122	2 477	5 533	75 550	354 799	799 004	1 153 433	X	X			
32223	Stationery product mfg	48 492	1 386 689	36 769	74 863	917 439	3 691 226	4 242 107	7 930 422	2	2			
	1997..	47 825	1 379 650	36 188	73 082	907 055	3 758 880	4 149 591	7 778 206	X	X			
322231	Die-cut paper & paperboard office supplies mfg	13 410	355 663	10 461	22 124	238 233	1 172 005	1 321 083	2 496 145	2	4			
	1997..	12 792	345 586	10 009	20 421	229 977	1 085 427	1 221 317	2 274 062	X	X			
322232	Envelope mfg	26 414	811 895	19 943	40 548	547 020	1 602 793	1 977 177	3 576 473	1	3			
	1997..	25 867	794 390	19 534	39 910	528 592	1 736 860	1 916 771	3 639 443	X	X			
322233	Stationery, tablet, & related product mfg	8 670	219 131	6 365	12 191	132 187	916 429	943 847	1 857 804	9	5			
	1997..	9 166	239 674	6 645	12 751	148 666	936 593	1 011 503	1 864 701	X	X			
32229	Other converted paper product mfg	43 969	1 501 253	34 676	73 705	1 047 225	7 962 460	5 838 391	13 760 422	2	1			
	1997..	44 045	1 431 699	35 007	70 898	998 495	7 070 287	5 674 288	12 775 628	X	X			
322291	Sanitary paper product mfg	20 806	814 334	16 854	36 471	610 890	5 857 992	3 830 504	9 623 714	1	1			
	1997..	20 191	743 100	16 511	34 352	566 946	5 089 150	3 853 019	8 961 481	X	X			
322299	All other converted paper product mfg	23 163	686 919	17 822	37 234	436 335	2 104 468	2 007 887	4 136 708	3	3			
	1997..	23 854	688 599	18 496	36 546	431 549	1 981 137	1 821 269	3 814 147	X	X			
323	Printing & related support activities	848 854	26 994 982	623 039	1 217 507	17 026 832	61 029 001	40 306 396	101 308 600	1	1			
	1997..	838 625	26 102 047	611 413	1 170 313	16 397 923	58 688 532	39 358 433	97 908 661	X	X			
3231	Printing & related support activities	848 854	26 994 982	623 039	1 217 507	17 026 832	61 029 001	40 306 396	101 308 600	1	1			
	1997..	838 625	26 102 047	611 413	1 170 313	16 397 923	58 688 532	39 358 433	97 908 661	X	X			
32311	Printing	765 750	24 127 152	559 488	1 091 741	15 149 603	55 315 800	38 786 994	94 074 433	1	1			
	1997..	754 549	23 312 440	547 917	1 046 733	14 583 448	53 177 529	37 905 559	90 940 745	X	X			
323110	Commercial lithographic printing	425 487	14 399 805	311 876	614 108	9 129 073	31 014 010	21 457 104	52 439 626	1	1			
	1997..	415 080	13 711 203	300 860	586 495	8 633 252	29 555 126	20 678 471	50 137 781	X	X			
323111	Commercial gravure printing	22 615	836 583	19 737	39 796	648 415	2 157 094	1 937 798	4 060 707	2	1			
	1997..	23 260	804 827	19 435	38 727	620 163	1 925 502	2 001 001	3 923 991	X	X			
323112	Commercial flexographic printing	30 443	1 056 794	20 996	42 120	586 713	2 654 652	2 198 712	4 846 836	1	1			
	1997..	30 600	1 033 011	20 602	42 323	565 365	2 545 412	2 176 857	4 698 137	X	X			
323113	Commercial screen printing	71 024	1 715 639	51 320	95 649	967 134	3 692 194	2 912 063	6 631 896	1	2			
	1997..	72 614	1 732 350	53 429	95 889	986 290	3 713 814	2 888 815	6 601 773	X	X			
323114	Quick printing	53 663	1 317 493	37 013	67 143	800 963	2 740 167	1 519 726	4 263 157	1	3			
	1997..	52 507	1 260 997	36 796	59 610	771 861	2 678 687	1 492 006	4 168 064	X	X			
323115	Digital printing	4 498	128 719	2 978	5 750	68 363	315 051	148 352	463 198	1	7			
	1997..	4 201	122 919	2 817	5 076	67 481	271 111	134 326	405 975	X	X			
323116	Manifold business form printing	55 574	1 665 490	39 338	80 520	1 089 450	5 458 224	3 818 151	9 363 719	2	2			
	1997..	56 431	1 692 282	39 438	76 150	1 088 056	5 705 496	3 928 985	9 630 658	X	X			
323117	Book printing	49 584	1 551 880	39 356	75 444	1 065 487	3 433 698	2 181 709	5 607 200	2	3			
	1997..	49 044	1 530 472	38 811	75 757	1 057 317	3 302 528	2 217 085	5 518 791	X	X			
323118	Blankbook, looseleaf binder, & device mfg	17 791	532 077	12 611	25 687	272 156	1 724 371	1 236 765	2 923 355	3	10			
	1997..	17 798	509 339	12 785	26 236	262 623	1 535 499	1 047 622	2 574 472	X	X			
323119	Other commercial printing	35 069	922 672	24 263	45 525	521 849	2 126 339	1 376 614	3 474 740	2	3			
	1997..	33 014	915 040	22 944	40 470	531 040	1 944 354	1 340 391	3 281 103	X	X			
32312	Support activities for printing	83 105	2 867 830	63 551	125 766	1 877 229	5 713 201	1 519 402	7 234 167	1	2			

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NAICS code	Industry group and industry	All employees		Production workers		Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—			
		Number	Payroll (\$1,000)	Number	Hours (1,000)				Wages (\$1,000)	A	B	
												C
324	Petroleum & coal products mfg	1998..	107 632	5 686 197	71 407	160 987	3 503 356	30 727 333	104 329 184	137 065 947	1	1
		1997..	107 811	5 551 371	71 707	161 379	3 425 020	37 625 988	139 550 401	177 448 273	X	X
3241	Petroleum & coal products mfg	1998..	107 632	5 686 197	71 407	160 987	3 503 356	30 727 333	104 329 184	137 065 947	1	1
32411	Petroleum refineries	1998..	64 806	3 963 664	42 117	97 788	2 460 449	22 956 207	91 783 326	116 659 857	1	1
		1997..	65 448	3 884 869	42 693	99 837	2 412 190	30 878 456	127 555 077	158 667 598	X	X
324110	Petroleum refineries	1998..	64 806	3 963 664	42 117	97 788	2 460 449	22 956 207	91 783 326	116 659 857	1	1
32412	Asphalt paving, roofing, & saturated materials mfg	1998..	27 596	1 099 538	20 179	44 254	4 496 440	7 567 087	12 105 669	2	5	
		1997..	27 437	1 063 946	20 176	43 430	4 017 063	6 997 664	11 019 301	X	X	
324121	Asphalt paving mixture & block mfg ..	1998..	14 294	576 856	10 316	21 565	388 561	2 388 414	4 351 474	6 755 630	4	10
324122	Asphalt shingle & coating materials mfg	1998..	14 082	564 619	10 219	21 491	375 451	1 984 078	3 925 215	5 924 720	X	X
		1997..	13 302	522 682	9 863	22 689	343 954	2 108 026	3 215 613	5 350 039	1	3
32419	Other petroleum & coal products mfg ..	1998..	15 231	622 995	9 111	18 946	310 393	3 274 687	4 978 771	8 300 420	1	1
324191	Petroleum lubricating oil & grease mfg	1998..	14 926	602 556	8 838	18 112	300 632	2 730 469	4 997 660	7 761 374	X	X
		1997..	11 677	477 110	6 357	13 020	212 965	2 607 112	4 096 326	6 747 236	1	1
324199	All other petroleum & coal products mfg	1998..	11 292	449 968	5 997	11 958	192 664	2 074 107	3 985 943	6 088 041	X	X
325	Chemical mfg	1998..	3 554	145 885	2 754	5 926	97 428	667 575	882 445	1 553 184	4	2
		1997..	3 634	152 588	2 841	6 154	107 968	656 362	1 011 717	1 673 333	X	X
3251	Basic chemical mfg	1998..	898 429	41 663 525	519 903	1 078 120	20 036 896	236 073 648	188 350 763	424 152 323	1	1
32511	Petrochemical mfg	1998..	886 271	39 984 709	514 451	1 073 347	19 264 989	227 273 483	193 291 055	419 287 213	X	X
		1997..	201 520	10 478 589	116 562	243 855	5 518 283	56 198 780	53 478 910	110 015 033	1	1
325110	Petrochemical mfg	1998..	200 978	10 306 972	115 020	244 552	5 427 028	53 771 180	59 755 772	113 510 705	X	X
325112	Industrial gas mfg	1998..	10 399	635 689	5 794	13 248	330 687	6 734 274	8 900 072	15 642 755	1	1
		1997..	10 192	620 132	5 741	12 869	326 988	6 359 545	11 192 888	19 468 615	X	X
32512	Industrial gas mfg	1998..	10 399	635 689	5 794	13 248	330 687	6 734 274	8 900 072	15 642 755	1	1
325120	Industrial gas mfg	1998..	10 192	620 132	5 741	12 869	326 988	6 359 545	11 192 888	19 468 615	X	X
		1997..	12 590	582 247	6 980	14 824	309 493	3 722 635	2 070 554	5 754 562	1	1
32513	Dye & pigment mfg	1998..	12 635	579 835	6 813	14 516	296 543	3 485 120	1 918 330	5 415 828	X	X
325131	Inorganic dye & pigment mfg	1998..	12 590	582 247	6 980	14 824	309 493	3 722 635	2 070 554	5 754 562	1	1
		1997..	12 635	579 835	6 813	14 516	296 543	3 485 120	1 918 330	5 415 828	X	X
325132	Synthetic organic dye & pigment mfg	1998..	17 012	782 260	10 270	21 775	443 907	3 382 133	3 062 779	6 432 217	1	1
32518	Other basic inorganic chemical mfg	1998..	17 317	782 734	10 554	22 430	452 437	3 351 826	3 042 031	6 432 088	X	X
		1997..	8 531	401 664	5 581	11 974	249 283	1 981 306	1 757 122	3 750 272	1	1
325181	Alkalies & chlorine mfg	1998..	8 636	394 913	5 677	11 837	251 586	2 021 578	1 713 362	3 739 228	X	X
325182	Carbon black mfg	1998..	8 481	380 596	4 690	9 801	194 623	1 400 826	1 305 656	2 681 944	1	2
		1997..	8 681	387 821	4 877	10 593	200 851	1 330 248	1 328 669	2 692 860	X	X
325188	All other basic inorganic chemical mfg	1998..	59 989	3 059 816	33 364	64 627	1 527 759	18 376 175	7 913 045	26 240 611	1	2
32519	Other basic organic chemical mfg	1998..	60 174	2 976 437	31 813	65 014	1 474 509	12 746 336	7 976 517	20 754 515	X	X
		1997..	100 660	5 347 834	60 099	129 723	2 876 551	25 828 353	35 626 006	61 439 659	X	X
325191	Gum & wood chemical mfg	1998..	2 494	94 120	1 842	4 112	62 489	463 642	388 779	846 610	1	1
325192	Cyclic crude & intermediate mfg	1998..	2 267	84 353	1 708	3 785	56 532	469 827	348 617	815 201	X	X
		1997..	8 706	474 851	5 039	11 478	267 228	2 501 324	3 480 227	6 039 394	1	1
325193	Ethyl alcohol mfg	1998..	8 641	467 132	5 153	11 442	257 924	2 807 384	4 053 054	6 861 138	X	X
325199	All other basic organic chemical mfg	1998..	1 566	61 003	1 111	2 287	35 297	339 551	868 408	1 229 932	2	3
		1997..	1 527	59 291	1 055	2 340	38 758	229 873	1 002 412	1 233 614	X	X
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	1998..	88 763	4 788 603	52 163	111 507	2 541 423	20 679 045	26 799 047	47 828 952	1	1
32521	Resin & synthetic rubber mfg	1998..	88 225	4 737 058	52 183	112 156	2 523 337	22 321 269	30 221 923	52 529 706	X	X
		1997..	114 802	5 530 805	76 928	169 380	3 341 388	28 383 854	34 857 069	63 333 752	1	1
325211	Plastics material & resin mfg	1998..	115 660	5 397 484	78 834	172 421	3 286 632	27 277 655	37 345 489	64 386 959	X	X
325212	Synthetic rubber mfg	1998..	73 800	3 902 051	44 542	98 954	2 187 855	21 624 991	28 637 904	50 419 113	1	1
		1997..	73 773	3 788 443	45 872	100 221	2 163 763	20 398 329	31 144 751	51 377 714	X	X
32522	Artificial & synthetic fibers & filaments mfg	1998..	62 919	3 306 037	37 466	83 302	1 837 612	19 080 025	25 864 211	45 078 252	1	1
325221	Cellulosic organic fiber mfg	1998..	61 632	3 160 542	38 078	83 556	1 798 060	17 625 910	27 750 752	45 225 887	X	X
		1997..	10 881	596 014	7 076	15 652	350 243	2 544 966	2 773 693	5 340 861	1	1
325222	Noncellulosic organic fiber mfg	1998..	12 141	627 901	7 794	16 665	365 703	2 772 419	3 393 999	6 151 827	X	X
3253	Pesticide, fertilizer, & other agricultural chemical mfg	1998..	41 002	1 628 754	32 385	70 426	1 153 532	6 758 863	6 219 165	12 914 639	1	1
		1997..	41 887	1 609 041	32 962	72 200	1 122 869	6 879 326	6 200 738	13 009 245	X	X
32531	Fertilizer mfg	1998..	4 055	147 082	3 174	6 187	98 602	450 085	450 857	901 999	1	1
325311	Nitrogenous fertilizer mfg	1998..	4 802	174 879	3 750	7 875	102 838	603 753	500 989	1 096 983	X	X
		1997..	36 947	1 481 672	29 211	64 239	1 054 930	6 308 778	5 768 308	12 012 640	1	1
325312	Phosphatic fertilizer mfg	1998..	37 085	1 434 162	29 212	64 325	1 002 031	6 275 573	5 699 749	11 912 262	X	X
325314	Fertilizer (mixing only) mfg	1998..	37 306	1 558 660	24 332	53 192	913 995	12 384 528	11 967 026	24 343 200	2	1
		1997..	37 206	1 518 839	23 827	52 075	873 174	12 587 451	11 880 867	24 266 513	X	X
32532	Pesticide & other agricultural chemical mfg	1998..	23 014	912 061	15 911	34 338	584 296	5 150 206	7 888 561	13 071 265	2	2
325320	Pesticide & other agricultural chemical mfg	1998..	23 212	883 219	15 717	34 886	548 746	4 909 535	8 020 733	12 846 263	X	X
		1997..	5 335	301 062	3 602	8 099	188 013	1 637 836	2 180 168	3 801 288	1	1
325321	Fertilizer (mixing only) mfg	1998..	5 811	286 132	3 701	8 133	170 626	1 814 299	2 172 209	3 961 254	X	X
325322	Pesticide & other agricultural chemical mfg	1998..	8 294	359 560	5 821	13 601	250 579	2 346 995	3 230 693	5 649 715	1	2
		1997..	8 559	360 599	5 984	14 212	243 085	2 071 966	3 525 008	5 557 744	X	X
325323	Fertilizer (mixing only) mfg	1998..	9 384	251 439	6 488	12 638	145 704	1 165 376	2 477 700	3 620 262	1	8
325324	Pesticide & other agricultural chemical mfg	1998..	8 842	236 488	6 032	12 541	135 035	1 023 270	2 323 516	3 327 265	X	X
		1997..	14 293	646 599	8 422	18 854	329 699	7 234 322	4 078 465	11 271 934	1	1
325325	Pesticide & other agricultural chemical mfg	1998..	13 994	635 620	8 110	17 189	324 428	7 677 916	3 860 134	11 420 250	X	X
325326	Pesticide & other agricultural chemical mfg	1998..	14 293	646 599	8 422	18 854	329 699	7 234 322	4 078 465	11 271 934	1	1
		1997..	13 994	635 620	8 110	17 189	324 428	7 677 916	3 860 134	11 420 250	X	X

See footnotes at end of table.

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		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F
		A	B	C	D	E				F	G
325	Chemical mfg—Con.										
3254	Pharmaceutical & medicine mfg	1998.. 213 882	11 246 557	103 529	208 823	4 090 924	70 046 404	33 333 110	102 995 063	1	1
		1997.. 205 448	10 222 069	102 093	207 220	3 736 967	64 678 192	29 974 269	93 857 690	X	X
32541	Pharmaceutical & medicine mfg	1998.. 213 882	11 246 557	103 529	208 823	4 090 924	70 046 404	33 333 110	102 995 063	1	1
		1997.. 205 448	10 222 069	102 093	207 220	3 736 967	64 678 192	29 974 269	93 857 690	X	X
325411	Medicinal & botanical mfg	1998.. 30 024	1 728 584	14 550	32 859	679 590	7 209 174	5 937 896	13 171 761	1	1
		1997.. 27 764	1 530 029	13 505	29 216	596 030	6 297 660	5 588 337	11 888 455	X	X
325412	Pharmaceutical preparation mfg	1998.. 118 286	6 103 613	62 192	122 642	2 379 205	52 589 454	22 648 009	74 768 574	1	1
		1997.. 115 286	5 591 463	62 467	125 986	2 155 813	48 358 235	19 785 634	67 535 222	X	X
325413	In-vitro diagnostic substance mfg	1998.. 41 129	2 307 464	14 391	28 290	608 158	6 325 012	2 471 947	8 956 089	2	2
		1997.. 39 099	2 080 123	13 966	27 029	592 310	6 302 107	2 467 698	8 758 031	X	X
325414	Biological product (except diagnostic) mfg	1998.. 24 442	1 106 897	12 395	25 032	423 971	3 922 763	2 275 258	6 098 638	1	1
		1997.. 23 299	1 020 454	12 155	24 989	392 814	3 720 190	2 132 600	5 675 982	X	X
3255	Paint, coating, & adhesive mfg	1998.. 76 782	2 963 812	42 217	83 891	1 302 748	12 674 964	14 404 346	27 161 474	1	4
		1997.. 75 100	2 922 234	41 186	82 250	1 267 521	12 734 802	13 898 105	26 585 380	X	X
32551	Paint & coating mfg	1998.. 54 539	2 101 317	29 064	56 478	902 990	9 328 112	10 448 634	19 878 273	2	5
		1997.. 53 152	2 083 746	28 366	55 574	879 604	9 323 582	9 921 432	19 207 122	X	X
325510	Paint & coating mfg	1998.. 54 539	2 101 317	29 064	56 478	902 990	9 328 112	10 448 634	19 878 273	2	5
		1997.. 53 152	2 083 746	28 366	55 574	879 604	9 323 582	9 921 432	19 207 122	X	X
32552	Adhesive mfg	1998.. 22 244	862 496	13 153	27 413	399 758	3 346 852	3 955 712	7 283 200	1	2
		1997.. 21 948	838 488	12 820	26 676	387 917	3 411 220	3 976 673	7 378 258	X	X
325520	Adhesive mfg	1998.. 22 244	862 496	13 153	27 413	399 758	3 346 852	3 955 712	7 283 200	1	2
		1997.. 21 948	838 488	12 820	26 676	387 917	3 411 220	3 976 673	7 378 258	X	X
3256	Soap, cleaning compound, & toilet preparation mfg	1998.. 131 999	4 780 342	81 259	161 041	2 329 207	37 277 784	21 465 403	58 461 582	1	1
		1997.. 126 948	4 585 760	78 110	155 328	2 189 938	36 285 296	21 354 077	57 545 051	X	X
32561	Soap & cleaning compound mfg	1998.. 64 500	2 520 104	38 405	78 449	1 240 532	20 377 164	13 272 694	33 681 361	2	1
		1997.. 62 614	2 458 650	37 365	77 163	1 200 390	19 602 071	13 582 236	33 173 161	X	X
325611	Soap & other detergent mfg	1998.. 30 952	1 272 256	18 941	38 083	630 637	10 066 744	6 932 704	17 072 878	2	1
		1997.. 31 158	1 271 545	18 234	36 942	628 720	10 490 110	7 364 034	17 811 233	X	X
325612	Polish & other sanitation good mfg	1998.. 24 063	767 704	14 453	29 389	394 473	5 506 928	3 303 398	8 745 335	5	1
		1997.. 21 985	724 411	14 133	28 728	360 261	5 149 717	3 190 254	8 369 554	X	X
325613	Surface active agent mfg	1998.. 9 485	480 144	5 012	10 977	215 422	4 803 492	3 036 593	7 863 148	2	1
		1997.. 9 471	462 694	4 998	11 493	211 409	3 962 244	3 027 948	6 992 374	X	X
32562	Toilet preparation mfg	1998.. 67 498	2 260 238	42 854	82 593	1 088 675	16 900 620	8 192 709	24 780 221	2	1
		1997.. 64 334	2 127 110	40 745	78 165	989 548	16 683 225	7 771 841	24 371 890	X	X
325620	Toilet preparation mfg	1998.. 67 498	2 260 238	42 854	82 593	1 088 675	16 900 620	8 192 709	24 780 221	2	1
		1997.. 64 334	2 127 110	40 745	78 165	989 548	16 683 225	7 771 841	24 371 890	X	X
3259	Other chemical product mfg	1998.. 122 138	5 104 760	75 075	157 937	2 540 341	19 107 334	18 844 899	37 842 221	1	1
		1997.. 124 931	5 031 351	75 381	159 501	2 483 729	19 938 907	19 082 476	39 134 915	X	X
32591	Printing ink mfg	1998.. 13 488	544 548	7 877	16 275	1 782 163	2 574 062	2 574 062	4 283 127	1	9
		1997.. 13 218	510 631	7 012	14 704	244 249	1 614 812	2 523 267	4 109 451	X	X
325910	Printing ink mfg	1998.. 13 488	544 548	7 877	16 275	1 782 163	2 574 062	2 574 062	4 283 127	1	9
		1997.. 13 218	510 631	7 012	14 704	244 249	1 614 812	2 523 267	4 109 451	X	X
32592	Explosives mfg	1998.. 8 410	296 903	6 039	11 712	179 198	612 345	623 284	1 247 881	1	6
		1997.. 8 972	312 301	6 648	13 516	190 534	789 782	649 413	1 447 274	X	X
325920	Explosives mfg	1998.. 8 410	296 903	6 039	11 712	179 198	612 345	623 284	1 247 881	1	6
		1997.. 8 972	312 301	6 648	13 516	190 534	789 782	649 413	1 447 274	X	X
32599	All other chemical product & preparation mfg	1998.. 100 240	4 263 309	61 159	129 949	2 097 621	16 712 826	15 647 553	32 311 213	1	1
		1997.. 102 741	4 208 419	61 721	131 281	2 048 946	17 534 313	15 909 796	33 578 190	X	X
325991	Custom compounding of purchased resin	1998.. 27 584	993 727	18 043	37 472	532 320	3 335 353	4 839 412	8 156 489	3	1
		1997.. 27 776	957 095	18 356	36 385	506 381	3 043 048	4 783 508	7 818 015	X	X
325992	Photographic film, paper, plate, & chemical mfg	1998.. 35 578	1 779 379	19 939	46 209	819 277	6 207 206	4 684 463	10 924 548	1	1
		1997.. 38 935	1 828 139	21 761	51 366	852 008	7 669 991	5 053 351	12 895 637	X	X
325998	All other miscellaneous chemical product & preparation mfg	1998.. 37 078	1 490 202	23 178	46 268	746 025	7 170 267	6 123 678	13 230 176	2	1
		1997.. 36 030	1 423 185	21 604	43 530	690 557	6 821 274	6 072 937	12 864 538	X	X
326	Plastics & rubber products mfg	1998.. 1 042 811	31 181 806	827 309	1 660 350	20 884 795	85 480 901	78 574 950	164 041 160	1	1
		1997.. 1 030 909	30 405 415	811 109	1 618 984	19 962 664	81 948 468	78 589 886	160 359 448	X	X
3261	Plastics product mfg	1998.. 836 010	24 193 942	661 904	1 322 374	15 873 653	66 803 850	61 930 588	128 693 601	1	1
		1997.. 827 169	23 232 717	648 995	1 287 021	15 073 457	63 815 124	61 908 347	125 485 473	X	X
32611	Unsupported plastics film, sheet, & bag mfg	1998.. 109 922	3 699 247	85 326	178 421	2 462 370	11 831 509	12 720 534	24 519 362	1	1
		1997.. 110 657	3 659 960	84 946	179 085	2 397 342	11 639 745	13 129 606	24 732 842	X	X
326111	Unsupported plastics bag mfg	1998.. 41 136	1 208 914	33 740	69 864	854 735	3 858 583	3 726 907	7 565 137	2	3
		1997.. 40 733	1 169 892	33 174	69 116	808 656	3 405 517	3 903 985	7 300 982	X	X
326112	Unsupported plastics packaging film & sheet mfg	1998.. 14 973	554 635	11 902	25 659	393 691	1 483 536	1 932 174	3 419 228	2	4
		1997.. 15 351	549 120	11 905	26 366	389 115	1 564 822	2 009 303	3 581 917	X	X
326113	Unsupported plastics film & sheet (except packaging) mfg	1998.. 53 813	1 935 698	39 684	82 898	1 213 945	6 489 391	7 061 453	13 534 997	1	1
		1997.. 54 573	1 940 948	39 867	83 603	1 199 571	6 669 406	7 216 318	13 849 943	X	X
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg	1998.. 48 218	1 508 069	36 044	72 541	946 009	4 244 596	4 978 355	9 276 550	2	2
		1997.. 47 762	1 422 415	36 097	71 744	889 498	4 096 971	5 232 483	9 285 139	X	X
326121	Unsupported plastics profile shape mfg	1998.. 28 415	895 991	20 378	40 801	528 971	2 391 550	2 037 565	4 412 874	3	1
		1997.. 27 752	869 811	20 389	40 871	520 656	2 302 420	2 172 419	4 488 086	X	X
326122	Plastics pipe & pipe fitting mfg	1998.. 19 803	612 078	15 666	31 739	417 038	1 853 045	2 940 789	4 863 676	3	4
		1997.. 20 010	552 604	15 708	30 873	368 842	1 794 551	3 060 064	4 797 053	X	X
32613	Laminated plastics plate, sheet, & shape mfg	1998.. 15 691	541 705	12 206	27 021	360 747	1 472 244	1 367 457	2 855 551	2	2
		1997.. 16 660	547 169	12 939	27 363	367 397	1 632 775	1 573 457	3 207 676	X	X
326130	Laminated plastics plate, sheet, & shape mfg	1998.. 15 691	541 705	12 206	27 021	360 747	1 472 244	1 367 457	2 855 551	2	2
		1997.. 16 660	547 169	12 939	27 363	367 397	1 632 775	1 573 457	3 207 676	X	X
32614	Polystyrene foam product mfg	1998.. 30 455	835 502	24 988	49 848						

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NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—												
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F											
												A	B	C	D	E	F	G	H	A	F	
326	Plastics & rubber products mfg—Con.																					
3261	Plastics product mfg—Con.																					
32615	Urethane & other foam product (except polystyrene) mfg	1998.. 36 395	1 042 253	28 937	55 038	675 531	2 897 149	3 848 267	6 736 131	1	2											
		1997.. 37 614	1 011 453	30 000	56 814	661 521	2 813 283	3 884 032	6 678 859	X	X											
326150	Urethane & other foam product (except polystyrene) mfg	1998.. 36 395	1 042 253	28 937	55 038	675 531	2 897 149	3 848 267	6 736 131	1	2											
		1997.. 37 614	1 011 453	30 000	56 814	661 521	2 813 283	3 884 032	6 678 859	X	X											
32616	Plastics bottle mfg	1998.. 35 681	1 026 782	30 362	61 407	771 020	3 448 228	3 563 554	7 007 098	1	3											
		1997.. 34 667	979 205	29 377	60 655	749 230	3 138 291	3 313 275	6 423 318	X	X											
326160	Plastics bottle mfg	1998.. 35 681	1 026 782	30 362	61 407	771 020	3 448 228	3 563 554	7 007 098	1	3											
		1997.. 34 667	979 205	29 377	60 655	749 230	3 138 291	3 313 275	6 423 318	X	X											
32619	Other plastics product mfg	1998.. 559 648	15 540 383	444 041	878 098	10 051 508	39 942 970	32 827 160	72 752 244	1	1											
		1997.. 552 290	14 825 065	433 897	846 851	9 477 294	37 964 919	32 160 392	70 008 482	X	X											
326191	Plastics plumbing fixture mfg	1998.. 19 359	498 664	14 958	32 111	324 446	1 421 636	1 021 576	2 431 881	5	3											
		1997.. 19 359	455 236	15 006	29 816	301 193	1 242 812	937 911	2 185 349	X	X											
326192	Resilient floor covering mfg	1998.. 6 484	277 255	5 107	10 367	202 214	986 982	724 656	1 729 258	1	1											
		1997.. 6 070	270 689	4 739	9 694	199 622	987 612	704 616	1 671 237	X	X											
326199	All other plastics product mfg	1998.. 533 812	14 764 464	423 975	835 620	9 524 847	37 534 351	31 080 928	68 591 104	1	1											
		1997.. 526 861	14 099 140	414 152	807 341	8 976 479	35 734 495	30 517 865	66 151 896	X	X											
3262	Rubber product mfg	1998.. 206 801	6 987 863	165 405	337 976	5 011 142	18 677 051	16 644 363	35 347 559	1	1											
		1997.. 203 740	6 812 698	162 114	331 963	4 889 207	18 133 344	16 681 539	34 873 975	X	X											
32621	Tire mfg	1998.. 73 710	3 032 559	61 533	124 741	2 397 893	8 053 342	7 366 919	15 427 200	1	1											
		1997.. 72 304	2 965 563	60 130	123 543	2 347 957	7 923 991	7 762 444	15 714 079	X	X											
326211	Tire mfg (except retreading)	1998.. 65 498	2 826 129	55 229	111 075	2 258 435	7 594 860	6 811 455	14 413 893	1	1											
		1997.. 64 365	2 773 176	54 182	110 689	2 220 478	7 522 980	7 184 252	14 731 472	X	X											
326212	Tire retreading	1998.. 8 212	206 430	6 304	13 666	139 459	458 482	555 463	1 013 307	3	3											
		1997.. 7 939	192 387	5 948	12 854	127 479	401 011	578 192	982 607	X	X											
32622	Rubber & plastics hoses & belting mfg	1998.. 24 789	792 586	19 581	40 537	550 698	2 242 763	1 969 403	4 238 119	1	1											
		1997.. 24 182	749 220	18 758	39 339	521 633	2 162 353	1 822 849	4 025 238	X	X											
326220	Rubber & plastics hoses & belting mfg	1998.. 24 789	792 586	19 581	40 537	550 698	2 242 763	1 969 403	4 238 119	1	1											
		1997.. 24 182	749 220	18 758	39 339	521 633	2 162 353	1 822 849	4 025 238	X	X											
32629	Other rubber product mfg	1998.. 108 302	3 162 718	84 291	172 689	2 062 551	8 380 946	7 308 041	15 682 241	1	2											
		1997.. 107 254	3 097 915	83 226	169 081	2 019 617	8 047 000	7 096 246	15 134 658	X	X											
326291	Rubber product mfg for mechanical use	1998.. 56 995	1 668 702	46 128	96 100	1 140 272	3 999 959	3 136 664	7 110 086	1	3											
		1997.. 55 669	1 598 812	44 404	91 858	1 087 264	3 841 210	2 837 559	6 653 355	X	X											
326299	All other rubber product mfg	1998.. 51 308	1 494 016	38 163	76 599	922 278	4 380 986	4 171 377	8 572 154	1	1											
		1997.. 51 585	1 499 103	38 822	77 223	932 353	4 205 790	4 258 687	8 481 303	X	X											
327	Nonmetallic mineral product mfg	1998.. 511 680	17 010 039	399 811	838 540	12 027 661	52 910 335	39 918 475	92 898 146	1	1											
		1997.. 504 425	16 271 263	391 082	802 473	11 382 705	49 708 174	37 341 613	87 012 983	X	X											
3271	Clay product & refractory mfg	1998.. 78 535	2 257 647	62 623	125 124	1 597 637	5 995 970	3 195 046	9 202 829	1	1											
		1997.. 80 740	2 245 025	64 108	126 939	1 581 857	5 918 470	3 179 035	9 093 276	X	X											
32711	Pottery, ceramics, & plumbing fixture mfg	1998.. 41 455	1 134 900	33 587	65 739	827 088	2 910 729	1 244 185	4 145 136	2	1											
		1997.. 42 594	1 114 914	34 256	66 104	803 716	2 795 863	1 167 173	3 947 995	X	X											
327111	Vitreous china plumbing fixture & bathroom accessories mfg	1998.. 9 604	306 131	8 328	17 371	254 868	877 118	323 097	1 199 102	1	1											
		1997.. 9 222	284 871	7 816	16 305	234 827	807 165	287 587	1 109 995	X	X											
327112	Vitreous china, fine earthenware, & other pottery product mfg	1998.. 22 134	510 126	17 721	33 580	363 906	1 220 293	484 719	1 693 985	1	1											
		1997.. 23 290	504 789	18 600	33 680	353 746	1 190 998	508 998	1 670 799	X	X											
327113	Porcelain electrical supply mfg	1998.. 9 717	318 643	7 539	14 788	208 314	812 818	436 368	1 252 049	6	2											
		1997.. 10 082	325 254	7 840	16 119	215 143	798 600	371 088	1 167 201	X	X											
32712	Clay building material & refractories mfg	1998.. 37 080	1 122 747	29 036	59 385	770 549	3 085 172	1 950 862	5 057 693	1	1											
		1997.. 38 146	1 130 111	29 852	60 835	778 141	3 122 607	2 011 862	5 145 281	X	X											
327121	Brick & structural clay tile mfg	1998.. 13 489	370 236	10 820	22 512	256 037	1 045 701	426 342	1 493 536	2	2											
		1997.. 13 808	364 199	10 947	22 336	250 809	976 780	442 818	1 421 766	X	X											
327122	Ceramic wall & floor tile mfg	1998.. 8 392	205 276	7 160	13 951	160 257	531 865	301 172	816 897	2	1											
		1997.. 8 804	216 199	7 481	15 109	167 164	562 204	300 251	859 028	X	X											
327123	Other structural clay product mfg	1998.. 1 490	38 270	1 143	2 312	24 871	90 388	35 981	128 580	1	1											
		1997.. 1 332	35 163	1 025	1 945	22 877	80 941	34 771	117 376	X	X											
327124	Clay refractory mfg	1998.. 5 617	201 829	4 231	8 793	139 947	534 343	536 453	1 082 855	1	2											
		1997.. 5 781	199 274	4 386	8 809	138 806	564 030	552 865	1 115 939	X	X											
327125	Nonclay refractory mfg	1998.. 8 092	307 136																			

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NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—		
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F	
												A
327	Nonmetallic mineral product mfg—Con.											
3273	Cement & concrete product mfg—Con.											
32739	Other concrete product mfg	1998..	57 025	1 697 488	42 841	92 953	1 101 623	3 982 677	3 007 136	6 991 364	1	2
		1997..	53 225	1 515 287	39 205	79 986	949 578	3 538 314	2 535 503	6 043 403	X	X
327390	Other concrete product mfg	1998..	57 025	1 697 488	42 841	92 953	1 101 623	3 982 677	3 007 136	6 991 364	1	2
		1997..	53 225	1 515 287	39 205	79 986	949 578	3 538 314	2 535 503	6 043 403	X	X
3274	Lime & gypsum product mfg	1998..	20 350	764 382	16 339	37 393	580 498	3 551 452	2 919 003	6 529 389	2	4
		1997..	19 094	700 958	15 168	34 539	515 220	2 857 490	2 753 830	5 618 874	X	X
32741	Lime mfg	1998..	5 793	224 007	4 422	10 232	166 989	762 201	533 663	1 309 217	2	11
		1997..	5 358	196 630	4 103	9 096	146 230	621 746	554 887	1 181 697	X	X
327410	Lime mfg	1998..	5 793	224 007	4 422	10 232	166 989	762 201	533 663	1 309 217	2	11
		1997..	5 358	196 630	4 103	9 096	146 230	621 746	554 887	1 181 697	X	X
32742	Gypsum product mfg	1998..	14 557	540 375	11 917	27 161	413 509	2 789 252	2 385 340	5 220 172	2	4
		1997..	13 736	504 328	11 065	25 443	368 990	2 235 744	2 198 943	4 437 177	X	X
327420	Gypsum product mfg	1998..	14 557	540 375	11 917	27 161	413 509	2 789 252	2 385 340	5 220 172	2	4
		1997..	13 736	504 328	11 065	25 443	368 990	2 235 744	2 198 943	4 437 177	X	X
3279	Other nonmetallic mineral product mfg ...	1998..	81 189	2 736 714	60 287	126 070	1 853 820	8 983 417	6 103 776	15 086 724	1	2
		1997..	78 600	2 627 167	59 089	118 799	1 740 185	8 689 768	5 802 060	14 521 783	X	X
32791	Abrasive product mfg	1998..	21 356	746 828	14 375	31 576	440 160	2 957 273	1 741 319	4 738 909	3	3
		1997..	22 605	783 548	15 916	31 084	426 008	2 940 602	1 748 438	4 710 047	X	X
327910	Abrasive product mfg	1998..	21 356	746 828	14 375	31 576	440 160	2 957 273	1 741 319	4 738 909	3	3
		1997..	22 605	783 548	15 916	31 084	426 008	2 940 602	1 748 438	4 710 047	X	X
32799	All other nonmetallic mineral product mfg	1998..	59 833	1 989 887	45 912	94 494	1 413 660	6 026 144	4 362 456	10 347 815	1	2
		1997..	55 995	1 843 619	43 173	87 715	1 314 177	5 749 166	4 053 622	9 811 736	X	X
327991	Cut stone & stone product mfg	1998..	14 388	370 665	11 236	23 305	282 990	812 182	510 974	1 306 738	2	6
		1997..	13 165	352 039	10 328	20 930	255 913	793 835	453 289	1 249 927	X	X
327992	Ground or treated mineral & earth mfg	1998..	10 459	389 897	7 483	15 669	235 083	1 441 620	1 005 880	2 449 603	4	7
		1997..	10 144	362 670	7 159	15 153	227 500	1 433 254	951 188	2 376 035	X	X
327993	Mineral wool mfg	1998..	22 733	873 659	18 456	38 113	667 562	2 697 560	1 899 949	4 592 380	2	1
		1997..	21 610	811 380	17 791	36 164	624 686	2 601 843	1 803 109	4 422 507	X	X
327999	All other miscellaneous nonmetallic mineral product mfg	1998..	12 253	355 666	8 737	17 407	228 026	1 074 783	945 653	1 999 094	2	4
		1997..	11 076	317 530	7 895	15 468	206 078	920 234	846 036	1 763 267	X	X
331	Primary metal mfg	1998..	606 978	24 286 776	483 161	1 017 700	17 658 607	69 045 415	97 020 558	166 343 459	1	1
		1997..	609 136	23 969 717	483 036	1 031 768	17 463 866	68 966 178	99 313 881	168 233 947	X	X
3311	Iron & steel mills & ferroalloy mfg	1998..	149 728	7 697 674	116 950	254 236	5 771 073	24 584 785	32 767 733	57 384 263	1	1
		1997..	150 113	7 616 191	117 667	258 935	5 759 029	25 319 358	33 165 101	58 267 891	X	X
33111	Iron & steel mills & ferroalloy mfg	1998..	149 728	7 697 674	116 950	254 236	5 771 073	24 584 785	32 767 733	57 384 263	1	1
		1997..	150 113	7 616 191	117 667	258 935	5 759 029	25 319 358	33 165 101	58 267 891	X	X
331111	Iron & steel mills	1998..	145 995	7 535 856	114 336	248 170	5 667 438	24 009 184	31 884 479	55 930 293	1	1
		1997..	146 389	7 459 241	115 001	252 921	5 655 261	24 743 241	32 306 871	56 858 057	X	X
331112	Electrometallurgical ferroalloy product mfg	1998..	3 733	161 818	2 614	6 066	103 635	575 601	883 254	1 453 970	1	1
		1997..	3 724	156 946	2 666	6 014	103 768	576 117	858 230	1 409 834	X	X
3312	Steel product mfg from purchased steel ..	1998..	64 766	2 407 532	50 913	108 410	1 695 515	6 736 625	12 258 374	19 009 870	2	1
		1997..	65 181	2 361 163	50 645	107 202	1 642 280	6 902 174	11 865 040	18 704 438	X	X
33121	Iron & steel pipes & tubes mfg from purchased steel	1998..	27 852	1 013 297	21 762	46 106	695 150	2 787 609	4 953 513	7 749 259	1	1
		1997..	27 209	990 493	21 254	44 868	665 949	2 864 348	4 675 156	7 504 683	X	X
331210	Iron & steel pipes & tubes mfg from purchased steel	1998..	27 852	1 013 297	21 762	46 106	695 150	2 787 609	4 953 513	7 749 259	1	1
		1997..	27 209	990 493	21 254	44 868	665 949	2 864 348	4 675 156	7 504 683	X	X
33122	Rolling & drawing of purchased steel ...	1998..	36 915	1 394 235	29 151	62 304	1 000 365	3 949 016	7 304 861	11 260 610	4	2
		1997..	37 972	1 370 670	29 391	62 334	976 331	4 037 826	7 189 884	11 199 755	X	X
331221	Cold-rolled steel shape mfg	1998..	14 348	653 472	10 559	22 191	450 196	1 943 856	4 341 771	6 293 226	1	2
		1997..	14 197	633 162	10 304	21 399	435 258	2 039 126	4 246 376	6 267 017	X	X
331222	Steel wire drawing	1998..	22 567	740 763	18 592	40 114	550 169	2 005 160	2 963 090	4 967 385	6	4
		1997..	23 775	737 508	19 087	40 935	541 073	1 998 700	2 943 508	4 932 738	X	X
3313	Alumina & aluminum production & processing	1998..	85 879	3 354 555	68 037	141 962	2 327 636	10 757 997	20 612 582	31 529 460	1	1
		1997..	85 299	3 375 953	67 387	143 940	2 372 774	10 113 111	22 384 094	32 688 658	X	X
33131	Alumina & aluminum production & processing	1998..	85 879	3 354 555	68 037	141 962	2 327 636	10 757 997	20 612 582	31 529 460	1	1
		1997..	85 299	3 375 953	67 387	143 940	2 372 774	10 113 111	22 384 094	32 688 658	X	X
331311	Alumina refining	1998..	3 148	146 599	2 448	5 205	100 999	292 855	1 020 053	1 313 287	1	1
		1997..	3 035	150 696	2 278	5 060	102 416	329 432	816 488	1 219 057	X	X
331312	Primary aluminum production	1998..	16 317	730 453	13 098	26 621	524 792	2 100 991	3 912 975	6 013 501	1	1
		1997..	15 763	707 402	12 624	26 074	512 941	2 432 972	3 706 850	6 224 610	X	X
331314	Secondary smelting & alloying of aluminum	1998..	7 248	249 117	5 648	12 588	169 705	905 978	2 755 116	3 653 904	1	6
		1997..	6 714	229 293	5 111	11 069	151 748	810 026	2 842 565	3 651 180	X	X
331315	Aluminum sheet, plate, & foil mfg	1998..	23 203	1 079 242	17 666	38 112	735 108	4 354 411	8 271 370	12 727 139	1	1
		1997..	25 111	1 199 382	19 403	41 857	840 864	3 565 736	10 103 793	13 755 566	X	X
331316	Aluminum extruded product mfg	1998..	31 690	1 001 575	25 803	52 270	691 486	2 540 236	3 570 602	6 170 183	1	1
		1997..	30 357	944 829	24 556	52 804	661 814	2 476 351	3 742 324	6 177 701	X	X
331319	Other aluminum rolling & drawing	1998..	4 271	147 569	3 374	7 165	105 546	563 525	1 082 466	1 651 446	1	1
		1997..	4 319	144 351	3 415	7 076	102 991	498 594	1 172 074	1 660 544	X	X
3314	Nonferrous metal (except aluminum) production & processing	1998..	80 850	3 076 602	60 511	128 505	2 065 410	9 622 635	19 206 030	28 976 075	1	1
		1997..	81 717	3 068 568	60 882	132 022	2 064 807	9 696 423	19 662 396	29 463 211	X	X
33141	Nonferrous metal (except aluminum) smelting & refining	1998..	16 115	629 369	11 704	25 494	425 457	2 371 612	6 438 522	8 859 384	1	1
		1997..	16 624	653 383	12 268	27 000	442 887	2 442 494	6 757 433	9 250 130	X	X
331411	Primary smelting & refining of copper	1998..	6 539	249 314	5 000	11 174	188 795	901 687	4 598 402	5 559 052	1	1
		1997..	7 360	287 382	5 721	12 640	218 511	1 024 581	4 845 126	5 907 609	X	X
331419	Other nonferrous metal primary smelting & refining	1998..	9 576	380 054	6 703	14 319	236 662					

Table 2. Statistics for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—	
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F
331	Primary metal mfg—Con.										
3314	Nonferrous metal (except aluminum) production & processing—Con.										
33142	Copper rolling, drawing, extruding, & alloying	1998.. 27 990	1 025 614	21 991	46 294	720 965	3 002 962	6 700 189	9 770 674	1	2
		1997.. 27 708	1 001 529	21 372	46 611	699 500	2 992 000	6 832 501	9 831 523	X	X
331421	Copper rolling, drawing, & extruding	1998.. 21 252	804 087	16 973	35 915	584 531	2 277 886	5 210 317	7 550 150	1	1
		1997.. 21 137	786 184	16 601	36 598	568 259	2 309 257	5 304 433	7 622 853	X	X
331422	Copper wire (except mechanical) drawing	1998.. 4 452	132 277	3 466	6 999	88 543	417 116	661 782	1 078 921	3	16
		1997.. 4 238	124 240	3 191	6 593	82 651	359 428	659 613	1 011 291	X	X
331423	Secondary smelting, refining, & alloying of copper	1998.. 2 285	89 251	1 552	3 379	47 891	307 960	828 089	1 141 602	2	1
		1997.. 2 333	91 105	1 580	3 420	48 590	323 315	868 455	1 197 379	X	X
33149	Other nonferrous metal rolling, drawing, extruding, & alloying	1998.. 36 746	1 421 618	26 817	56 717	918 988	4 248 061	6 067 320	10 346 017	1	1
		1997.. 37 385	1 413 656	27 242	58 411	922 420	4 261 929	6 072 462	10 381 558	X	X
331491	Other nonferrous metal rolling, drawing, & extruding	1998.. 25 752	1 005 563	18 834	39 501	653 428	3 041 227	4 041 465	7 108 288	1	1
		1997.. 25 834	989 865	18 883	40 987	652 754	3 051 359	4 052 153	7 144 137	X	X
331492	Other nonferrous metal secondary smelting, refining, & alloying	1998.. 10 994	416 055	7 983	17 216	265 559	1 206 834	2 025 855	3 237 729	1	2
		1997.. 11 551	423 791	8 359	17 424	269 666	1 210 570	2 020 309	3 237 421	X	X
3315	Foundries	1998.. 225 755	7 750 413	186 750	384 587	5 798 972	17 343 373	12 175 839	29 443 792	2	1
		1997.. 226 826	7 547 842	186 455	389 669	5 624 976	16 935 112	12 237 250	29 109 749	X	X
33151	Ferrous metal foundries	1998.. 128 543	4 732 839	107 257	224 262	3 620 081	10 574 019	6 842 975	17 391 655	3	2
		1997.. 132 853	4 666 674	109 800	231 999	3 551 894	10 512 158	7 062 332	17 533 215	X	X
331511	Iron foundries	1998.. 81 659	3 217 093	68 642	146 901	2 498 977	7 074 898	4 930 080	11 980 670	4	3
		1997.. 86 198	3 234 387	71 593	154 606	2 493 845	7 092 629	5 172 516	12 264 238	X	X
331512	Steel investment foundries	1998.. 22 282	707 848	18 428	35 367	532 147	1 728 776	711 634	2 445 478	4	2
		1997.. 22 673	669 452	18 418	36 870	494 655	1 656 130	715 264	2 341 737	X	X
331513	Steel foundries (except investment) ..	1998.. 24 602	807 898	20 187	41 994	588 957	1 770 346	1 201 261	2 965 508	1	1
		1997.. 23 982	762 835	19 789	40 523	563 394	1 763 399	1 174 552	2 927 240	X	X
33152	Nonferrous metal foundries	1998.. 97 212	3 017 574	79 493	160 325	2 178 892	6 769 354	5 332 864	12 052 136	1	1
		1997.. 93 973	2 881 168	76 655	157 670	2 073 082	6 422 954	5 174 918	11 576 534	X	X
331521	Aluminum die-casting foundries	1998.. 28 055	931 683	23 162	47 728	689 579	2 098 968	1 882 671	3 919 001	1	3
		1997.. 27 576	902 653	22 798	47 253	678 079	1 960 665	1 850 055	3 811 987	X	X
331522	Nonferrous (except aluminum) die-casting foundries	1998.. 17 498	510 398	14 081	26 095	355 077	1 224 138	944 872	2 181 841	3	3
		1997.. 16 861	489 546	13 439	26 724	338 594	1 132 381	871 034	2 005 227	X	X
331524	Aluminum foundries (except die-casting)	1998.. 35 368	1 061 338	28 887	59 543	773 760	2 292 100	1 777 973	4 075 547	1	1
		1997.. 34 098	1 013 843	27 832	58 299	722 302	2 201 294	1 748 724	3 945 530	X	X
331525	Copper foundries (except die-casting)	1998.. 9 394	273 952	7 889	15 841	201 239	533 631	348 136	871 972	5	4
		1997.. 8 909	260 340	7 423	15 073	192 890	520 790	341 658	854 704	X	X
331528	Other nonferrous foundries (except die-casting)	1998.. 6 897	240 203	5 474	11 118	159 236	620 516	379 212	1 003 775	1	3
		1997.. 6 529	214 786	5 163	10 321	141 217	607 824	363 447	959 086	X	X
332	Fabricated metal product mfg	1998.. 1 817 699	59 473 125	1 373 005	2 814 623	38 112 130	139 426 010	114 449 393	253 342 261	1	1
		1997.. 1 772 149	56 887 563	1 332 909	2 687 238	36 412 612	133 775 530	110 569 334	243 610 498	X	X
3321	Forging & stamping	1998.. 164 421	5 744 930	124 915	262 726	3 732 809	12 907 008	12 488 493	25 350 513	1	1
		1997.. 159 212	5 470 354	121 261	254 551	3 572 059	12 353 494	11 975 156	24 198 295	X	X
33211	Forging & stamping	1998.. 164 421	5 744 930	124 915	262 726	3 732 809	12 907 008	12 488 493	25 350 513	1	1
		1997.. 159 212	5 470 354	121 261	254 551	3 572 059	12 353 494	11 975 156	24 198 295	X	X
332111	Iron & steel forging	1998.. 28 770	1 148 448	21 506	45 616	759 734	2 636 140	2 801 330	5 441 580	2	2
		1997.. 26 477	1 034 307	20 012	42 612	697 208	2 399 607	2 572 850	4 927 676	X	X
332112	Nonferrous forging	1998.. 9 402	357 789	7 119	14 884	244 471	937 953	938 335	1 867 798	1	1
		1997.. 9 129	366 879	6 952	15 422	256 737	1 002 573	865 845	1 858 708	X	X
332114	Custom roll forming	1998.. 15 181	514 478	10 401	22 638	314 671	1 287 725	1 948 694	3 236 368	2	5
		1997.. 15 440	507 972	10 970	22 984	305 255	1 261 214	1 838 349	3 065 423	X	X
332115	Crown & closure mfg	1998.. 4 396	161 982	3 676	7 899	122 223	427 161	494 422	919 790	1	1
		1997.. 4 628	163 702	3 843	8 087	123 497	430 337	511 827	946 801	X	X
332116	Metal stamping	1998.. 95 492	3 170 470	74 029	154 617	2 044 842	6 788 913	5 731 652	12 491 486	1	2
		1997.. 92 680	3 026 763	71 559	148 676	1 951 543	6 462 904	5 636 418	12 068 555	X	X
332117	Powder metallurgy part mfg	1998.. 11 179	391 763	8 185	17 072	246 868	829 117	574 060	1 393 491	1	1
		1997.. 10 858	370 911	7 925	16 770	237 819	796 859	549 867	1 331 132	X	X
3322	Cutlery & handtool mfg	1998.. 78 067	2 604 104	58 917	118 968	1 572 874	7 478 708	4 202 867	11 686 221	1	1
		1997.. 78 452	2 528 465	58 512	117 880	1 553 599	7 560 314	4 048 640	11 580 229	X	X
33221	Cutlery & handtool mfg	1998.. 78 067	2 604 104	58 917	118 968	1 572 874	7 478 708	4 202 867	11 686 221	1	1
		1997.. 78 452	2 528 465	58 512	117 880	1 553 599	7 560 314	4 048 640	11 580 229	X	X
332211	Cutlery & flatware (except precious) mfg	1998.. 10 323	340 114	8 072	15 271	222 029	1 558 922	544 316	2 111 787	1	1
		1997.. 11 191	364 107	8 728	16 753	237 316	1 703 305	537 232	2 200 138	X	X
332212	Hand & edge tool mfg	1998.. 51 456	1 732 841	38 908	78 218	1 024 117	4 312 166	2 558 175	6 857 971	2	2
		1997.. 50 388	1 634 557	37 276	75 364	991 062	4 192 677	2 366 510	6 557 637	X	X
332213	Saw blade & handsaw mfg	1998.. 9 190	312 923	6 482	13 249	181 187	943 049	553 817	1 479 595	2	3
		1997.. 9 149	300 538	6 614	13 794	180 091	881 856	556 177	1 452 540	X	X
332214	Kitchen utensil, pot, & pan mfg	1998.. 7 099	218 227	5 456	12 230	145 542	664 571	546 559	1 526 867	2	5
		1997.. 7 724	229 263	5 894	11 969	145 130	782 476	588 721	1 369 914	X	X
3323	Architectural & structural metals mfg	1998.. 397 878	12 300 623	290 854	599 010	7 531 679	28 231 430	29 146 565	57 218 986	1	1
		1997.. 383 557	11 508 493	279 794	566 721	7 026 625	26 657 050	27 449 777	53 866 233	X	X
33231	Plate work & fabricated structural product mfg	1998.. 147 813	4 791 384	106 615	214 507	2 932 504	11 197 105	13 481 153	24 747 544	1	1
		1997.. 145 265	4 548 386	105 312	214 148	2 766 916	10 836 461	12 894 101	23 591 486	X	X
332311	Prefabricated metal building & component mfg	1998.. 25 456	814 135	17 110	36 599	452 299	1 867 049	2 647 254	4 483 123	5	6
		1997.. 26 532	780 911	18 304	36 739	443 364	1 921 823	2 600 054	4 500 982	X	X
332312	Fabricated structural metal mfg	1998.. 96 462	3 154 465	69 905	136 444	1 959 599	7 758 086	9 606 121	17 350 962	1	1
		1997.. 93 129	2 965 327	67 475	139 290	1 811 677	7 331 954	9 034 356	16 268 951	X	X
332313	Plate work mfg	1998.. 25 896	822 785	19 599	41 464	520 606	1 571 971	1 327 779	2 913 459	2	2
		1997.. 25 604	802 148	19 533	38 119	511 875	1 582 684	1 259 691	2 821 553	X	X
33232	Ornamental & architectural metal products mfg	1998.. 250 065	7 509 239	184 239	384 503	4 599 176	17 034				

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NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—											
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F										
												A	B	C	D	E	F	G	H	A	F
332	Fabricated metal product mfg—Con.																				
3323	Architectural & structural metals mfg—Con.																				
33232	Ornamental & architectural metal products mfg—Con.																				
332322	Sheet metal work mfg	1998.. 135 791	4 321 964	100 726	203 288	2 692 165	9 610 519	7 564 709	17 096 336												
		1997.. 129 246	4 038 298	96 074	192 701	2 510 867	8 797 139	7 171 458	15 883 897	X	X										
332323	Ornamental & architectural metal work mfg	1998.. 36 284	1 075 142	26 471	54 321	653 560	2 346 368	2 075 390	4 401 264												
		1997.. 34 843	987 749	24 957	49 642	600 857	2 256 865	1 942 996	4 195 651	X	X										
3324	Boiler, tank, & shipping container mfg	1998.. 102 838	3 805 937	78 573	165 119	2 559 174	9 515 266	13 328 367	22 768 731												
		1997.. 103 527	3 711 942	78 552	163 063	2 543 268	8 950 058	14 066 609	22 913 467	X	X										
33241	Power boiler & heat exchanger mfg	1998.. 28 851	1 007 419	20 787	43 145	613 648	2 241 470	1 993 427	4 192 249												
		1997.. 27 781	955 029	19 784	41 363	583 530	2 086 180	1 827 878	3 887 275	X	X										
332410	Power boiler & heat exchanger mfg	1998.. 28 851	1 007 419	20 787	43 145	613 648	2 241 470	1 993 427	4 192 249												
		1997.. 27 781	955 029	19 784	41 363	583 530	2 086 180	1 827 878	3 887 275	X	X										
33242	Metal tank (heavy gauge) mfg	1998.. 32 595	1 150 321	23 627	48 782	703 117	2 487 679	2 289 482	4 768 009												
		1997.. 33 556	1 132 370	24 090	49 193	699 526	2 398 623	2 336 103	4 722 936	X	X										
332420	Metal tank (heavy gauge) mfg	1998.. 32 595	1 150 321	23 627	48 782	703 117	2 487 679	2 289 482	4 768 009												
		1997.. 33 556	1 132 370	24 090	49 193	699 526	2 398 623	2 336 103	4 722 936	X	X										
33243	Metal can, box, & other metal container (light gauge) mfg	1998.. 41 393	1 648 197	34 159	73 192	1 242 410	4 786 117	9 045 458	13 808 473												
		1997.. 42 190	1 624 543	34 678	72 507	1 260 212	4 465 255	9 902 628	14 303 256	X	X										
332431	Metal can mfg	1998.. 25 271	1 139 276	21 779	46 544	3 609 691	7 620 476	6 223 445	11 186 048												
		1997.. 27 316	1 185 705	23 063	49 078	973 966	3 482 779	8 623 245	12 042 011	X	X										
332439	Other metal container mfg	1998.. 16 121	508 920	12 380	26 648	329 246	1 176 426	2 822 242	2 622 425												
		1997.. 14 874	438 838	11 615	23 429	286 246	982 476	1 279 383	2 261 245	X	X										
3325	Hardware mfg	1998.. 72 663	2 256 842	56 256	111 885	1 446 044	5 979 102	4 888 678	10 976 515												
		1997.. 74 914	2 308 500	57 676	115 622	1 502 880	6 109 119	4 903 171	10 972 552	X	X										
33251	Hardware mfg	1998.. 72 663	2 256 842	56 256	111 885	1 446 044	5 979 102	4 888 678	10 976 515												
		1997.. 74 914	2 308 500	57 676	115 622	1 502 880	6 109 119	4 903 171	10 972 552	X	X										
332510	Hardware mfg	1998.. 72 663	2 256 842	56 256	111 885	1 446 044	5 979 102	4 888 678	10 976 515												
		1997.. 74 914	2 308 500	57 676	115 622	1 502 880	6 109 119	4 903 171	10 972 552	X	X										
3326	Spring & wire product mfg	1998.. 70 307	2 024 031	54 206	109 106	1 340 616	4 981 128	4 333 532	9 312 881												
		1997.. 70 736	1 921 620	55 015	108 433	1 255 243	4 577 401	4 040 755	8 599 380	X	X										
33261	Spring & wire product mfg	1998.. 70 307	2 024 031	54 206	109 106	1 340 616	4 981 128	4 333 532	9 312 881												
		1997.. 70 736	1 921 620	55 015	108 433	1 255 243	4 577 401	4 040 755	8 599 380	X	X										
332611	Spring (heavy gauge) mfg	1998.. 5 828	202 570	4 582	9 656	146 782	443 846	487 590	940 344												
		1997.. 5 581	183 180	4 284	9 112	127 591	422 894	428 345	845 199	X	X										
332612	Spring (light gauge) mfg	1998.. 19 201	591 198	15 511	30 510	408 120	1 442 892	1 195 890	2 636 221												
		1997.. 18 798	564 372	15 128	30 374	389 840	1 393 527	1 089 676	2 481 151	X	X										
332618	Other fabricated wire product mfg	1998.. 45 278	1 230 263	34 113	68 940	785 714	3 094 940	2 650 502	5 736 316												
		1997.. 46 357	1 174 068	35 603	68 947	787 812	2 760 380	2 522 034	5 273 030	X	X										
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1998.. 442 139	14 626 261	344 489	705 898	9 812 840	29 155 487	15 491 258	44 529 807												
		1997.. 423 692	14 048 327	328 692	649 177	9 368 013	28 569 636	15 084 251	43 500 749	X	X										
33271	Machine shops	1998.. 304 258	9 878 957	237 095	478 627	6 607 164	18 371 434	8 889 914	27 202 515												
		1997.. 290 278	9 474 361	225 370	428 312	6 327 085	18 408 777	8 723 257	27 041 231	X	X										
332710	Machine shops	1998.. 304 258	9 878 957	237 095	478 627	6 607 164	18 371 434	8 889 914	27 202 515												
		1997.. 290 278	9 474 361	225 370	428 312	6 327 085	18 408 777	8 723 257	27 041 231	X	X										
33272	Turned product & screw, nut, & bolt mfg	1998.. 137 881	4 747 304	107 394	227 271	3 205 676	10 784 053	6 601 344	17 327 292												
		1997.. 133 414	4 573 966	103 322	220 865	3 040 928	10 160 859	6 360 994	16 459 518	X	X										
332721	Precision turned product mfg	1998.. 80 837	2 699 614	64 944	138 049	1 873 862	5 685 689	2 845 989	8 543 163												
		1997.. 80 419	2 634 589	63 724	136 593	1 813 535	5 508 950	2 851 664	8 324 857	X	X										
332722	Bolt, nut, screw, rivet, & washer mfg	1998.. 57 044	2 047 690	42 450	89 222	1 331 814	5 098 364	3 755 355	8 784 130												
		1997.. 52 995	1 939 377	39 598	84 272	1 227 393	4 651 909	3 509 330	8 134 661	X	X										
3328	Coating, engraving, heat treating, & allied activities	1998.. 159 703	4 819 244	126 777	253 807	3 169 918	11 049 182	7 932 122	18 991 848												
		1997.. 153 275	4 525 102	120 108	240 960	2 938 353	10 345 219	7 606 849	17 959 202	X	X										
33281	Coating, engraving, heat treating, & allied activities	1998.. 159 703	4 819 244	126 777	253 807	3 169 918	11 049 182	7 932 122	18 991 848												
		1997.. 153 275	4 525 102	120 108	240 960	2 938 353	10 345 219	7 606 849	17 959 202	X	X										
332811	Metal heat treating	1998.. 23 345	860 992	18 527	38 250	581 534	2 106 750	1 418 366	3 535 695												
		1997.. 22 506	797 170	17 413	35 797	527 424	2 041 750	1 443 499	3 472 560	X	X										
332812	Metal coating/engraving (exc jewelry/silverware)/allied services	1998.. 60 994	1 774 848	48 398	95 868	1 188 442	4 741 885	4 710 551	9 437 974												
		1997.. 56 030	1 634 808	44 475	89 868	1 094 033	4 147 362	4 339 509	8 493 377	X	X										
332813	Electroplating, plating, polishing, anodizing, & coloring	1998.. 75 363	2 183 404	59 853	119 688	1															

Table 2. Statistics for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—	
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F
		A	B	C	D	E				F	G
332	Fabricated metal product mfg—Con.										
3329	Other fabricated metal product mfg—Con.										
33299	All other fabricated metal product mfg—Con.										
332997	Industrial pattern mfg	1998.. 7 887	294 654	6 651	12 883	233 084	498 119	124 150	582 100	4	8
		1997.. 7 959	285 038	6 518	12 568	218 201	484 631	139 305	623 927	X	X
332998	Enameled iron & metal sanitary ware mfg	1998.. 10 149	325 928	8 013	18 300	218 763	1 025 260	631 813	1 652 272	1	1
		1997.. 9 994	280 462	7 860	15 390	183 051	981 005	610 993	1 575 505	X	X
332999	All other miscellaneous fabricated metal product mfg	1998.. 81 996	2 516 713	60 847	122 498	1 584 381	5 933 018	5 633 751	11 518 999	1	2
		1997.. 78 834	2 359 132	58 458	114 309	1 474 360	5 477 762	5 043 745	10 491 840	X	X
333	Machinery mfg	1998.. 1 438 709	54 255 276	947 611	1 916 122	29 865 824	141 019 217	140 248 263	280 857 121	1	1
		1997.. 1 425 067	53 200 635	939 608	1 902 298	29 219 546	138 139 677	133 456 050	271 039 079	X	X
3331	Agriculture, construction, & mining machinery mfg	1998.. 211 930	7 873 342	148 894	299 227	4 799 228	26 085 000	31 736 714	57 150 793	1	1
		1997.. 212 405	7 735 543	149 692	299 688	4 746 581	24 403 287	30 142 850	54 256 773	X	X
33311	Agricultural implement mfg	1998.. 93 680	3 128 658	70 144	139 857	2 057 038	10 847 260	13 620 536	24 323 007	1	2
		1997.. 94 987	3 110 326	70 821	141 212	2 064 771	10 393 963	13 226 424	23 449 289	X	X
333111	Farm machinery & equipment mfg	1998.. 66 425	2 388 528	47 883	95 946	1 545 133	8 086 887	8 520 319	16 547 210	1	2
		1997.. 66 370	2 370 599	47 885	95 652	1 550 603	7 624 348	8 468 947	15 994 778	X	X
333112	Lawn & garden tractor & home lawn & garden equipment mfg	1998.. 27 255	740 129	22 261	43 911	511 906	2 760 373	5 100 217	7 775 797	2	1
		1997.. 28 617	739 727	22 936	45 560	514 168	2 769 615	4 757 477	7 454 511	X	X
33312	Construction machinery mfg	1998.. 73 290	3 010 653	49 748	100 597	1 784 428	10 280 664	13 737 568	23 674 787	2	1
		1997.. 74 965	2 998 967	50 607	102 720	1 785 316	8 959 494	12 849 126	21 965 455	X	X
333120	Construction machinery mfg	1998.. 73 290	3 010 653	49 748	100 597	1 784 428	10 280 664	13 737 568	23 674 787	2	1
		1997.. 74 965	2 998 967	50 607	102 720	1 785 316	8 959 494	12 849 126	21 965 455	X	X
33313	Mining & oil & gas field machinery mfg	1998.. 44 960	1 734 031	29 002	58 773	957 762	4 957 076	4 378 610	9 152 999	1	1
		1997.. 42 453	1 626 250	28 264	55 756	896 494	5 049 830	4 067 300	8 842 029	X	X
333131	Mining machinery & equipment mfg	1998.. 14 726	527 124	9 646	20 547	294 986	1 417 491	1 538 869	2 943 010	1	1
		1997.. 13 547	486 496	9 148	18 994	274 361	1 383 018	1 357 074	2 710 923	X	X
333132	Oil & gas field machinery & equipment mfg	1998.. 30 234	1 206 907	19 356	38 226	662 776	3 539 585	2 839 741	6 209 989	1	2
		1997.. 28 906	1 139 754	19 116	36 762	622 133	3 666 812	2 710 226	6 131 106	X	X
3332	Industrial machinery mfg	1998.. 198 571	7 727 729	111 042	213 422	3 529 347	17 863 643	17 178 510	35 392 758	1	2
		1997.. 194 112	7 600 430	110 543	222 778	3 447 649	19 483 015	17 487 514	36 678 383	X	X
33321	Sawmill & woodworking machinery mfg	1998.. 9 313	320 836	5 606	11 578	150 650	727 595	594 780	1 304 433	3	8
		1997.. 9 128	302 587	5 803	11 773	159 919	691 923	630 911	1 325 461	X	X
333210	Sawmill & woodworking machinery mfg	1998.. 9 313	320 836	5 606	11 578	150 650	727 595	594 780	1 304 433	3	8
		1997.. 9 128	302 587	5 803	11 773	159 919	691 923	630 911	1 325 461	X	X
33322	Plastics & rubber industry machinery mfg	1998.. 18 877	724 493	10 834	21 152	356 540	1 617 796	1 578 625	3 212 690	2	7
		1997.. 18 624	746 777	10 467	21 140	351 008	1 960 958	1 666 016	3 594 147	X	X
333220	Plastics & rubber industry machinery mfg	1998.. 18 877	724 493	10 834	21 152	356 540	1 617 796	1 578 625	3 212 690	2	7
		1997.. 18 624	746 777	10 467	21 140	351 008	1 960 958	1 666 016	3 594 147	X	X
33329	Other industrial machinery mfg	1998.. 170 381	6 682 400	94 602	180 691	3 022 157	15 518 252	15 005 105	30 875 635	1	2
		1997.. 166 360	6 551 066	94 273	189 865	2 936 722	16 830 134	15 190 587	31 758 775	X	X
333291	Paper industry machinery mfg	1998.. 18 703	778 404	10 206	20 645	367 671	1 534 878	1 774 126	3 294 314	1	4
		1997.. 18 594	772 659	10 282	21 084	370 938	1 644 833	1 847 024	3 438 235	X	X
333292	Textile machinery mfg	1998.. 12 870	444 033	7 856	15 601	225 464	1 029 625	719 428	1 756 528	7	4
		1997.. 13 550	446 138	8 531	16 914	234 762	1 029 140	745 076	1 771 478	X	X
333293	Printing machinery & equipment mfg	1998.. 21 173	870 328	11 302	23 384	404 317	2 013 874	1 912 124	3 969 415	2	3
		1997.. 21 000	852 640	11 483	23 846	403 866	1 919 294	1 627 357	3 528 606	X	X
333294	Food product machinery mfg	1998.. 19 172	731 999	11 452	22 609	364 651	1 602 003	1 337 579	2 931 793	2	5
		1997.. 19 026	715 068	11 509	22 585	354 542	1 583 907	1 310 832	2 877 841	X	X
333295	Semiconductor machinery mfg	1998.. 43 978	1 776 467	23 077	37 163	687 203	4 590 338	5 273 220	10 066 710	1	3
		1997.. 40 087	1 701 669	20 912	42 156	610 858	6 007 882	5 356 942	11 158 627	X	X
333298	All other industrial machinery mfg	1998.. 54 484	2 081 169	30 709	61 289	972 852	4 747 534	3 988 629	8 856 874	2	4
		1997.. 54 103	2 062 892	31 556	63 280	961 756	4 645 078	4 303 356	8 983 988	X	X
3333	Commercial & service industry machinery mfg	1998.. 131 024	4 763 771	77 858	153 519	2 123 313	15 314 020	11 955 377	27 199 854	1	1
		1997.. 130 051	4 722 072	76 134	147 928	2 069 500	14 151 370	11 745 023	25 956 096	X	X
33331	Commercial & service industry machinery mfg	1998.. 131 024	4 763 771	77 858	153 519	2 123 313	15 314 020	11 955 377	27 199 854	1	1
		1997.. 130 051	4 722 072	76 134	147 928	2 069 500	14 151 370	11 745 023	25 956 096	X	X
333311	Automatic vending machine mfg	1998.. 9 027	230 654	6 799	14 148	135 484	677 841	796 977	1 463 961	2	6
		1997.. 8 178	215 627	6 015	12 269	123 249	603 361	717 296	1 325 960	X	X
333312	Commercial laundry, drycleaning, & pressing machine mfg	1998.. 4 434	134 405	3 251	6 716	83 835	300 127	330 806	633 165	1	1
		1997.. 4 523	136 783	3 328	6 864	84 584	270 378	334 781	604 966	X	X
333313	Office machinery mfg	1998.. 13 679	442 041	6 241	12 364	145 624	1 631 395	1 356 035	2 986 325	3	1
		1997.. 14 831	458 204	7 021	13 687	162 034	1 705 676	1 359 930	3 078 379	X	X
333314	Optical instrument & lens mfg	1998.. 21 092	874 068	12 774	26 409	396 499	2 195 781	1 131 306	3 321 729	3	2
		1997.. 20 902	837 136	12 375	24 449	362 921	2 023 233	1 188 406	3 189 131	X	X
333315	Photographic & photocopying equipment mfg	1998.. 24 115	1 054 002	14 714	27 376	469 299	5 263 096	3 664 229	8 933 232	1	1
		1997.. 24 707	1 099 950	14 768	26 756	496 203	4 542 657	3 828 250	8 410 124	X	X
333319	Other commercial & service industry machinery mfg	1998.. 58 678	2 028 602	34 080	66 505	892 573	5 245 780	4 676 024	9 861 443	2	2
		1997.. 56 910	1 974 372	32 627	63 903	840 509	5 006 065	4 316 360	9 347 536	X	X
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	1998.. 174 582	5 515 195	130 148	259 052	3 396 154	15 496 070	17 247 586	32 912 458	1	1
		1997.. 174 416	5 353 600	128 280	258 676	3 217 520	14 680 544	16 009 280	30 852 517	X	X
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	1998.. 174 582	5 515 195	130 148	259 052	3 396 154	15 496 070	17 247 586	32 912 458	1	1
		1997.. 174 416	5 353 600	128 280	258 676	3 217 520	14 680 544	16 009 280	30 852 517	X	X
333411	Air purification equipment mfg	1998.. 16 245	463 658	12 237	23 895	274 909	1 322 744	975 646	2 299 577	1	4
		1997.. 16 412	478 087	11 608	23 137	262 740	1 198 808	1 005 712	2 215 560	X	X
333412	Industrial & commercial fan & blower mfg	1998.. 14 551	476 623	10 359	20 010	282 833	960 749	934 123	1 903 789	4	8
		1997.. 13 723	432 195	9 396	19 342	245 436	1 005 443	894 121	1 901 196	X	X

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NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—	
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F
		A	B	C	D	E				F	G
333	Machinery mfg—Con.										
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg—Con.										
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg—Con.										
333414	Heating equipment (except warm air furnaces) mfg	1998.. 23 838	731 032	15 589	30 483	358 483	1 981 276	1 644 632	3 770 303	4	6
		1997.. 24 597	755 114	16 088	31 910	375 893	2 068 267	1 650 129	3 707 615	X	X
333415	AC & warm air heating & commercial/industrial refrig equip mfg	1998.. 119 948	3 843 883	91 962	184 664	2 479 929	11 231 301	13 693 184	24 938 789	1	1
		1997.. 119 684	3 688 204	91 188	184 287	2 333 451	10 408 026	12 459 318	23 028 146	X	X
3335	Metalworking machinery mfg	1998.. 247 807	10 013 223	177 854	373 203	6 358 020	19 391 609	11 451 271	30 803 400	1	1
		1997.. 243 399	9 851 973	174 854	365 396	6 280 690	19 321 017	11 274 253	30 381 603	X	X
33351	Metalworking machinery mfg	1998.. 247 807	10 013 223	177 854	373 203	6 358 020	19 391 609	11 451 271	30 803 400	1	1
		1997.. 243 399	9 851 973	174 854	365 396	6 280 690	19 321 017	11 274 253	30 381 603	X	X
333511	Industrial mold mfg	1998.. 49 186	2 074 642	38 884	84 392	1 474 126	3 830 358	1 408 774	5 187 826	1	3
		1997.. 48 657	2 088 950	38 418	82 252	1 488 623	3 701 448	1 420 798	5 116 635	X	X
333512	Machine tool (metal cutting types) mfg	1998.. 27 541	1 197 427	16 011	32 453	593 704	2 513 600	2 883 247	5 362 936	2	2
		1997.. 29 347	1 266 908	16 853	34 978	623 322	2 643 920	2 758 373	5 251 199	X	X
333513	Machine tool (metal forming types) mfg	1998.. 15 110	638 908	9 552	18 945	363 471	1 435 806	947 956	2 301 811	2	4
		1997.. 14 185	598 606	9 118	18 816	345 629	1 289 597	961 505	2 255 011	X	X
333514	Special die & tool, die set, jig, & fixture mfg	1998.. 82 715	3 293 355	64 067	135 868	2 289 741	5 980 271	2 396 528	8 401 915	1	2
		1997.. 80 113	3 229 765	62 176	128 803	2 262 582	5 943 861	2 383 013	8 244 855	X	X
333515	Cutting tool & machine tool accessory mfg	1998.. 49 923	1 715 486	36 030	72 522	1 091 887	3 692 363	1 919 670	5 505 484	1	1
		1997.. 47 925	1 643 142	34 765	70 786	1 044 834	3 588 142	1 802 436	5 350 008	X	X
333516	Rolling mill machinery & equipment mfg	1998.. 4 330	180 661	2 364	4 775	85 511	344 936	313 417	667 849	3	8
		1997.. 4 149	167 312	2 210	4 720	75 166	363 586	323 460	700 084	X	X
333518	Other metalworking machinery mfg ..	1998.. 19 004	912 744	10 946	24 248	459 579	1 594 274	1 581 679	3 375 579	2	15
		1997.. 19 023	857 290	11 314	25 041	440 534	1 790 463	1 624 668	3 463 811	X	X
3336	Engine, turbine, & power transmission equipment mfg	1998.. 111 723	4 683 754	76 414	157 529	2 853 868	14 780 330	17 291 141	31 952 243	1	1
		1997.. 113 739	4 642 811	78 605	158 081	2 815 728	14 564 155	15 649 074	30 464 987	X	X
33361	Engine, turbine, & power transmission equipment mfg	1998.. 111 723	4 683 754	76 414	157 529	2 853 868	14 780 330	17 291 141	31 952 243	1	1
		1997.. 113 739	4 642 811	78 605	158 081	2 815 728	14 564 155	15 649 074	30 464 987	X	X
333611	Turbine & turbine generator set unit mfg	1998.. 18 192	843 601	10 118	21 334	439 580	3 247 000	3 155 776	6 353 574	1	2
		1997.. 19 529	910 316	11 099	23 198	476 082	2 877 221	2 830 439	5 854 113	X	X
333612	Speed changer, industrial high-speed drive, & gear mfg	1998.. 15 860	611 306	11 067	22 518	374 974	1 519 921	957 579	2 456 406	1	1
		1997.. 16 258	598 017	11 285	22 889	363 695	1 471 210	941 113	2 405 920	X	X
333613	Mechanical power transmission equipment mfg	1998.. 21 744	789 728	15 165	31 089	483 787	1 985 507	1 461 190	3 424 521	1	1
		1997.. 21 604	770 962	15 229	30 573	469 780	1 911 335	1 411 779	3 301 091	X	X
333618	Other engine equipment mfg	1998.. 55 926	2 439 118	40 063	82 588	1 555 527	8 027 902	11 716 597	19 717 742	1	1
		1997.. 56 348	2 363 516	40 992	81 421	1 506 171	8 304 389	10 465 743	18 903 863	X	X
3339	Other general-purpose machinery mfg ..	1998.. 363 072	13 678 262	225 400	460 170	6 805 893	32 088 545	33 387 666	65 445 617	1	1
		1997.. 356 945	13 294 206	221 500	449 751	6 641 878	31 536 289	31 148 056	62 448 720	X	X
33391	Pump & compressor mfg	1998.. 70 708	2 727 578	41 353	84 457	1 308 494	6 979 580	7 909 590	14 936 350	1	4
		1997.. 68 197	2 614 706	40 246	81 727	1 254 681	6 699 571	7 153 413	13 774 594	X	X
333911	Pump & pumping equipment mfg	1998.. 38 324	1 529 304	22 194	46 126	727 988	3 787 432	4 100 597	7 761 958	1	6
		1997.. 36 552	1 422 919	21 129	43 634	675 709	3 441 832	3 395 232	6 824 687	X	X
333912	Air & gas compressor mfg	1998.. 25 949	946 691	15 091	30 466	459 586	2 492 060	3 112 592	5 767 290	1	8
		1997.. 24 821	940 349	14 795	30 071	457 476	2 659 928	3 044 620	5 633 008	X	X
333913	Measuring & dispensing pump mfg ..	1998.. 6 435	251 582	4 068	7 865	120 921	700 088	696 401	1 407 102	2	1
		1997.. 6 824	251 438	4 322	8 022	121 496	597 811	713 561	1 316 899	X	X
33392	Material handling equipment mfg	1998.. 94 659	3 455 351	60 722	127 325	1 735 408	7 647 681	10 276 960	17 956 214	1	2
		1997.. 92 907	3 338 808	60 019	124 007	1 738 859	7 244 183	9 502 877	16 661 819	X	X
333921	Elevator & moving stairway mfg	1998.. 9 489	333 280	6 048	13 055	172 004	757 162	853 942	1 615 420	2	12
		1997.. 9 442	340 525	6 253	13 148	185 299	748 229	865 092	1 607 066	X	X
333922	Conveyor & conveying equipment mfg	1998.. 39 260	1 554 882	22 398	47 043	647 948	3 206 249	3 270 412	6 564 093	2	4
		1997.. 39 498	1 534 627	23 306	49 530	702 283	3 069 238	3 310 534	6 370 668	X	X
333923	Overhead traveling crane, hoist, & monorail system mfg	1998.. 19 045	619 978	12 723	25 624	359 718	1 523 840	1 983 663	3 462 012	3	2
		1997.. 18 014	569 888	11 913	23 029	319 828	1 456 312	1 715 226	3 145 759	X	X
333924	Industrial truck, tractor, trailer, & stacker machinery mfg	1998.. 26 865	947 210	19 553	41 603	555 738	2 160 430	4 168 943	6 314 688	2	2
		1997.. 25 953	893 768	18 547	38 300	522 522	1 970 404	3 612 025	5 538 326	X	X
33399	All other general-purpose machinery mfg	1998.. 197 705	7 495 333	123 325	248 388	3 761 992	17 461 284	15 201 116	32 553 053	1	1
		1997.. 195 841	7 340 692	121 235	244 017	3 648 338	17 592 535	14 491 766	32 012 307	X	X
333991	Power-driven handtool mfg	1998.. 16 793	553 440	12 290	23 990	322 471	2 205 600	1 954 603	4 108 235	1	1
		1997.. 16 816	531 378	12 328	24 190	315 696	1 983 354	1 660 930	3 609 779	X	X
333992	Welding & soldering equipment mfg ..	1998.. 22 099	896 441	14 195	27 504	467 626	1 997 530	2 382 005	4 450 613	1	2
		1997.. 22 505	918 180	14 640	29 279	485 833	2 027 004	2 453 362	4 444 978	X	X
333993	Packaging machinery mfg	1998.. 32 470	1 318 063	17 520	35 288	572 378	2 736 649	2 200 238	4 980 406	2	2
		1997.. 32 338	1 288 518	17 433	35 102	557 099	2 745 751	2 134 992	4 958 262	X	X
333994	Industrial process furnace & oven mfg	1998.. 17 939	670 209	11 071	24 644	325 995	1 439 279	1 326 406	2 687 463	2	3
		1997.. 17 585	657 191	10 323	23 313	288 746	1 514 113	1 367 291	2 871 475	X	X
333995	Fluid power cylinder & actuator mfg ..	1998.. 24 471	959 205	16 422	34 079	576 334	2 152 418	1 493 100	3 581 802	2	3
		1997.. 23 265	906 388	15 267	31 944	530 880	2 166 148	1 398 624	3 553 593	X	X
333996	Fluid power pump & motor mfg	1998.. 16 934	669 263	11 760	24 553	398 115	1 605 624	1 394 871	2 964 264	1	2
		1997.. 15 963	625 065	11 090	22 767	364 146	1 537 014	1 288 081	2 826 616	X	X
333997	Scale & balance (except laboratory) mfg	1998.. 4 674	151 460	2 485	4 709	62 538	320 434	349 766	672 568	5	5
		1997.. 4 871	148 755	2 667	4 761	61 621	329 940	346 170	682 940	X	X
333999	All other miscellaneous general-purpose machinery mfg	1998.. 62 324	2 277 253	37 582	73 621	1 036 534	5 003 751	4 100 128	9 107 702	1	3
		1997.. 62 498	2 265 217	37 487	72 661	1 044 317	5 289 211	3 842 516	9 064 664	X	X

See footnotes at end of table.

Table 2. Statistics for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—		
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F	
												B
334	Computer & electronic product mfg	1998..	1 687 323	74 296 424	873 743	1 739 045	27 201 384	255 269 125	184 937 495	440 305 555	1	1
		1997..	1 695 165	72 635 078	878 213	1 749 131	26 114 699	251 698 177	186 917 302	437 984 354	X	X
3341	Computer & peripheral equipment mfg ...	1998..	240 829	11 335 167	91 889	182 291	3 260 690	49 570 400	63 264 436	113 454 749	1	1
		1997..	241 119	10 994 784	100 399	202 831	3 238 901	43 048 552	65 596 661	108 555 755	X	X
33411	Computer & peripheral equipment mfg	1998..	240 829	11 335 167	91 889	182 291	3 260 690	49 570 400	63 264 436	113 454 749	1	1
		1997..	241 119	10 994 784	100 399	202 831	3 238 901	43 048 552	65 596 661	108 555 755	X	X
334111	Electronic computer mfg	1998..	96 782	4 331 484	32 022	57 991	920 596	32 029 565	35 233 150	67 768 387	1	1
		1997..	100 094	4 282 451	36 107	67 394	954 790	25 983 890	40 249 350	66 401 010	X	X
334112	Computer storage device mfg	1998..	44 182	2 014 924	18 914	50 544	6 694 832	9 405 227	16 183 388	1 408 324	1	1
		1997..	41 123	1 871 113	19 820	41 542	6 000 106	6 433 704	7 349 388	13 739 770	X	X
334113	Computer terminal mfg	1998..	5 565	227 007	2 422	5 405	78 490	521 166	1 335 836	4 915 637	1	1
		1997..	5 764	253 087	2 843	5 862	89 758	529 803	941 879	1 484 630	X	X
334119	Other computer peripheral equipment mfg	1998..	94 300	4 761 752	38 531	68 351	1 624 293	10 324 837	17 810 422	28 167 137	2	1
		1997..	94 138	4 588 133	41 629	88 033	1 594 247	10 101 155	17 056 444	26 930 345	X	X
3342	Communications equipment mfg	1998..	286 423	13 829 089	131 707	255 354	4 387 461	47 727 955	36 749 327	83 575 609	1	1
		1997..	294 495	13 711 330	134 704	258 985	4 409 071	47 744 336	34 800 869	82 088 825	X	X
33421	Telephone apparatus mfg	1998..	102 170	5 350 793	42 024	79 418	1 523 227	26 015 486	17 228 498	42 488 792	1	1
		1997..	104 372	5 335 174	42 285	79 195	1 508 701	23 701 971	14 963 627	38 430 324	X	X
334210	Telephone apparatus mfg	1998..	102 170	5 350 793	42 024	79 418	1 523 227	26 015 486	17 228 498	42 488 792	1	1
		1997..	104 372	5 335 174	42 285	79 195	1 508 701	23 701 971	14 963 627	38 430 324	X	X
33422	Radio & TV broadcasting & wireless communications equipment mfg	1998..	159 359	7 533 328	77 797	152 722	2 584 624	19 295 754	17 713 700	36 849 064	1	1
		1997..	165 254	7 476 108	80 479	156 770	2 632 069	21 514 170	18 225 811	39 514 753	X	X
334220	Radio & TV broadcasting & wireless communications equipment mfg	1998..	159 359	7 533 328	77 797	152 722	2 584 624	19 295 754	17 713 700	36 849 064	1	1
		1997..	165 254	7 476 108	80 479	156 770	2 632 069	21 514 170	18 225 811	39 514 753	X	X
33429	Other communications equipment mfg	1998..	24 894	944 968	11 886	23 214	279 610	2 416 715	1 807 129	4 237 752	2	2
		1997..	24 869	900 048	11 940	23 020	268 301	2 528 195	1 611 431	4 143 748	X	X
334290	Other communications equipment mfg	1998..	24 894	944 968	11 886	23 214	279 610	2 416 715	1 807 129	4 237 752	2	2
		1997..	24 869	900 048	11 940	23 020	268 301	2 528 195	1 611 431	4 143 748	X	X
3343	Audio & video equipment mfg	1998..	32 648	961 481	23 220	44 245	517 766	2 688 712	5 630 421	8 392 933	2	4
		1997..	30 431	912 534	20 827	40 664	461 852	2 384 773	5 836 536	8 247 774	X	X
33431	Audio & video equipment mfg	1998..	32 648	961 481	23 220	44 245	517 766	2 688 712	5 630 421	8 392 933	2	4
		1997..	30 431	912 534	20 827	40 664	461 852	2 384 773	5 836 536	8 247 774	X	X
334310	Audio & video equipment mfg	1998..	32 648	961 481	23 220	44 245	517 766	2 688 712	5 630 421	8 392 933	2	4
		1997..	30 431	912 534	20 827	40 664	461 852	2 384 773	5 836 536	8 247 774	X	X
3344	Semiconductor & other electronic component mfg	1998..	584 234	22 476 327	373 897	749 883	10 210 839	88 807 120	43 678 727	132 656 092	1	1
		1997..	589 015	22 264 440	373 561	748 638	9 765 850	94 607 018	45 475 598	139 637 326	X	X
33441	Semiconductor & other electronic component mfg	1998..	584 234	22 476 327	373 897	749 883	10 210 839	88 807 120	43 678 727	132 656 092	1	1
		1997..	589 015	22 264 440	373 561	748 638	9 765 850	94 607 018	45 475 598	139 637 326	X	X
334411	Electron tube mfg	1998..	21 876	755 378	16 915	34 573	500 739	1 671 649	2 133 292	3 819 708	1	1
		1997..	22 089	745 316	16 943	34 572	495 572	1 620 651	2 312 818	3 879 621	X	X
334412	Bare printed circuit board mfg	1998..	79 972	2 442 156	63 156	131 582	1 605 081	5 202 129	4 198 666	9 345 807	1	1
		1997..	76 194	2 307 786	57 568	116 333	1 384 338	5 866 899	3 884 911	9 733 104	X	X
334413	Semiconductor & related device mfg	1998..	202 858	10 473 275	107 916	212 789	3 697 880	59 782 933	15 252 095	74 806 896	1	1
		1997..	199 706	10 122 645	106 912	216 774	3 544 110	64 169 054	15 129 735	78 587 762	X	X
334414	Electronic capacitor mfg	1998..	17 791	503 381	12 356	24 253	266 096	1 188 872	1 017 352	2 200 611	1	1
		1997..	18 882	531 259	13 193	25 543	283 980	1 380 079	1 144 367	2 482 163	X	X
334415	Electronic resistor mfg	1998..	11 317	300 133	8 291	16 040	179 498	692 355	424 631	1 119 242	3	7
		1997..	11 964	314 045	8 701	16 687	178 979	811 984	450 753	1 280 527	X	X
334416	Electronic coil, transformer, & other inductor mfg	1998..	19 105	468 390	14 829	29 340	268 190	953 184	555 487	1 504 575	1	4
		1997..	19 324	457 404	15 076	30 172	264 325	952 533	590 607	1 540 587	X	X
334417	Electronic connector mfg	1998..	39 509	1 202 768	27 438	56 428	728 279	3 696 994	1 629 391	5 321 726	2	1
		1997..	37 617	1 172 969	27 766	56 231	719 210	3 818 613	1 785 911	5 598 906	X	X
334418	Printed circuit assembly (electronic assembly) mfg	1998..	101 922	3 541 699	63 041	125 680	1 585 926	9 930 411	14 183 750	24 551 068	3	3
		1997..	111 407	3 853 852	66 152	133 949	1 558 817	9 957 180	15 776 717	26 110 051	X	X
334419	Other electronic component mfg	1998..	89 883	2 789 145	59 955	119 198	1 379 149	5 688 594	4 284 062	9 986 459	1	1
		1997..	91 832	2 759 164	61 250	118 377	1 336 519	6 030 025	4 399 779	10 424 605	X	X
3345	Navigational, measuring, medical, & control instruments mfg	1998..	485 308	23 761 463	213 036	423 382	7 651 970	60 380 607	31 225 738	91 736 063	1	1
		1997..	485 179	22 868 227	209 851	416 913	7 103 662	58 348 969	30 907 604	89 599 766	X	X
33451	Navigational, measuring, medical, & control instruments mfg	1998..	485 308	23 761 463	213 036	423 382	7 651 970	60 380 607	31 225 738	91 736 063	1	1
		1997..	485 179	22 868 227	209 851	416 913	7 103 662	58 348 969	30 907 604	89 599 766	X	X
334510	Electromedical & electrotherapeutic apparatus mfg	1998..	55 495	2 691 316	24 208	48 879	760 077	7 991 309	4 157 190	12 082 934	3	2
		1997..	55 231	2 644 570	24 873	50 622	743 364	7 651 446	4 019 734	11 636 506	X	X
334511	Search, detection, navigation, & guidance instrument mfg	1998..	187 997	10 246 405	69 456	134 176	2 909 593	23 920 251	9 133 603	33 223 932	1	1
		1997..	187 666	9 954 915	64 912	125 590	2 624 681	23 116 802	8 980 953	32 552 184	X	X
334512	Automatic environmental control mfg	1998..	20 158	658 533	14 130	26 407	350 067	1 927 675	1 238 001	3 140 685	6	4
		1997..	21 470	666 464	14 922	29 904	371 348	1 737 147	1 195 244	2 943 971	X	X
334513	Industrial process control instrument mfg	1998..	47 390	2 041 235	22 170	43 079	694 721	4 755 331	2 873 189	7 654 861	1	2
		1997..	49 050	1 997 579	21 562	41 808	628 240	5 061 973	2 781 749	7 864 202	X	X
334514	Totalizing fluid meter & counting device mfg	1998..	16 973	713 524	11 872	23 999	437 030	2 075 063	1 910 124	3 970 233	1	2
		1997..	17 390	683 294	12 063	23 778	419 182	2 002 519	1 768 609	3 772 738	X	X
334515	Electricity measuring & testing instrument mfg	1998..	64 692	3 278 329	29 780	61 748	1 127 592	9 343 004	4 869 104	14 257 635	1	3
		1997..	63 658	3 019 508	29 735	61 093	1 032 857	8 893 793	5 131 349	13 922 147	X	X
334516	Analytical laboratory instrument mfg	1998..	36 291	1 767 733	12 814	26 037	502 497	4 470 341	2 678 028	7 181 818	1	1
		1997..	36 219	1 703 175	13 389	27 059	476 689	4 044 199	2 754 618	6 821 439	X	X
334517	Irradiation apparatus mfg	1998..	13 437	656 648	5 619	12 204	193 668	2 020 885	1 816 318	3 829 786	1</	

Table 2. Statistics for Industry Groups and Industries: 1998 and 1997—Con.

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NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—		
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F	
		A	B	C	D	E						
334	Computer & electronic product mfg—Con.											
3345	Navigational, measuring, medical, & control instruments mfg—Con.											
33451	Navigational, measuring, medical, & control instruments mfg—Con.											
334519	Other measuring & controlling device mfg	1998..	36 166	1 505 027	18 333	36 920	575 384	3 372 659	2 120 982	5 463 441	2	2
		1997..	34 448	1 375 521	18 248	35 545	526 400	3 205 669	2 009 167	5 205 682	X	X
3346	Mfg & reproducing magnetic & optical media	1998..	57 880	1 932 897	39 994	83 890	1 172 658	6 094 332	4 388 846	10 490 109	2	2
		1997..	54 926	1 883 763	38 871	81 100	1 135 363	5 564 529	4 300 034	9 854 908	X	X
33461	Mfg & reproducing magnetic & optical media	1998..	57 880	1 932 897	39 994	83 890	1 172 658	6 094 332	4 388 846	10 490 109	2	2
		1997..	54 926	1 883 763	38 871	81 100	1 135 363	5 564 529	4 300 034	9 854 908	X	X
334611	Software reproducing	1998..	11 396	359 577	6 479	13 601	210 372	989 842	649 288	1 624 809	9	11
		1997..	8 027	310 933	4 359	10 072	198 130	819 132	438 293	1 258 435	X	X
334612	Prerecorded CD (except software), tape, & record reproducing	1998..	26 756	838 159	20 645	45 011	566 824	2 904 856	1 608 504	4 518 586	1	1
		1997..	25 554	756 860	19 738	40 688	519 578	2 418 969	1 432 332	3 870 110	X	X
334613	Magnetic & optical recording media mfg	1998..	19 728	735 161	12 871	25 278	395 462	2 199 634	2 131 053	4 346 715	4	3
		1997..	21 345	815 970	14 774	30 340	417 655	2 326 428	2 429 409	4 726 363	X	X
335	Electrical equipment, appliance, & component mfg	1998..	601 099	19 710 740	436 187	869 274	11 741 985	59 392 815	57 375 414	116 826 120	1	1
		1997..	594 259	18 957 344	432 795	860 625	11 364 169	57 189 381	55 087 286	112 188 814	X	X
3351	Electric lighting equipment mfg	1998..	73 927	2 212 396	55 446	114 611	1 383 806	7 594 304	5 961 717	13 612 587	1	1
		1997..	74 960	2 203 938	55 734	112 227	1 360 605	7 038 588	5 698 122	12 715 190	X	X
33511	Electric lamp bulb & part mfg	1998..	16 004	560 394	13 135	27 065	449 881	2 177 383	1 126 153	3 320 979	1	1
		1997..	15 903	574 696	13 478	28 532	471 301	2 119 597	1 185 867	3 306 009	X	X
335110	Electric lamp bulb & part mfg	1998..	16 004	560 394	13 135	27 065	449 881	2 177 383	1 126 153	3 320 979	1	1
		1997..	15 903	574 696	13 478	28 532	471 301	2 119 597	1 185 867	3 306 009	X	X
33512	Lighting fixture mfg	1998..	57 923	1 652 002	42 311	87 546	933 925	5 416 921	4 835 564	10 291 608	2	2
		1997..	59 057	1 629 242	42 256	83 695	889 304	4 918 991	4 512 255	9 409 181	X	X
335121	Residential electric lighting fixture mfg	1998..	18 212	469 851	13 724	27 504	257 214	1 232 180	1 193 937	2 451 041	3	2
		1997..	17 685	430 538	13 190	26 151	234 336	1 165 304	1 087 293	2 253 493	X	X
335122	Commercial/industrial/institutional electric lighting fixture mfg	1998..	22 732	651 408	16 554	34 617	368 892	2 420 696	2 066 523	4 476 214	1	1
		1997..	23 090	657 341	16 406	33 055	364 810	2 070 074	2 043 226	4 100 023	X	X
335129	Other lighting equipment mfg	1998..	16 978	530 743	12 033	25 425	307 819	1 764 445	1 575 104	3 364 352	4	5
		1997..	18 282	541 363	12 660	24 489	290 158	1 683 613	1 381 736	3 055 665	X	X
3352	Household appliance mfg	1998..	99 794	3 101 098	82 370	158 008	2 237 426	10 148 876	12 639 107	22 682 236	1	1
		1997..	97 384	2 923 925	79 920	155 733	2 125 936	10 110 071	11 314 092	21 441 693	X	X
33521	Small electrical appliance mfg	1998..	25 973	728 669	19 068	36 456	416 010	2 633 048	3 251 892	5 851 728	1	3
		1997..	27 595	751 887	20 174	37 725	436 403	2 882 389	3 037 362	5 932 619	X	X
335211	Electric housewares & household fan mfg	1998..	15 746	377 395	12 044	22 846	225 583	1 381 964	1 783 350	3 161 936	1	5
		1997..	17 058	411 389	12 948	24 212	251 100	1 666 523	1 860 256	3 532 813	X	X
335212	Household vacuum cleaner mfg	1998..	10 226	351 274	7 024	13 610	190 427	1 251 084	1 468 542	2 689 791	1	1
		1997..	10 537	340 498	7 226	13 513	185 303	1 215 866	1 177 106	2 399 206	X	X
33522	Major appliance mfg	1998..	73 822	2 372 428	63 302	121 552	1 821 415	7 515 828	9 387 215	16 830 508	1	1
		1997..	69 789	2 172 038	59 746	118 008	1 689 533	7 227 682	8 276 730	15 509 674	X	X
335221	Household cooking appliance mfg	1998..	18 668	539 741	15 558	30 545	364 703	1 674 040	2 237 378	3 867 019	5	5
		1997..	17 543	480 836	14 427	29 986	332 777	1 718 889	1 805 359	3 543 231	X	X
335222	Household refrigerator & home freezer mfg	1998..	25 177	846 036	22 222	42 737	693 295	2 074 321	3 239 773	5 282 323	1	1
		1997..	24 597	801 717	21 513	41 152	648 064	1 941 186	2 943 884	4 887 364	X	X
335224	Household laundry equipment mfg	1998..	16 753	565 508	14 318	26 349	438 947	2 106 905	2 321 843	4 427 619	1	1
		1997..	14 801	480 076	12 925	25 055	393 537	1 792 070	2 081 226	3 847 002	X	X
335228	Other major household appliance mfg	1998..	13 224	421 143	11 205	21 920	324 470	1 660 555	1 588 221	3 253 546	1	1
		1997..	12 848	409 409	10 881	21 815	315 155	1 775 537	1 446 261	3 232 077	X	X
3353	Electrical equipment mfg	1998..	208 113	7 000 266	142 668	278 262	3 814 398	19 116 000	17 086 569	36 219 359	1	1
		1997..	210 628	6 879 392	145 595	287 220	3 795 042	19 312 469	17 066 711	36 381 535	X	X
33531	Electrical equipment mfg	1998..	208 113	7 000 266	142 668	278 262	3 814 398	19 116 000	17 086 569	36 219 359	1	1
		1997..	210 628	6 879 392	145 595	287 220	3 795 042	19 312 469	17 066 711	36 381 535	X	X
335311	Power, distribution, & specialty transformer mfg	1998..	28 145	820 270	20 350	41 308	512 063	2 465 362	2 361 021	4 827 054	6	4
		1997..	26 920	826 826	20 176	41 406	519 069	2 568 905	2 191 884	4 749 555	X	X
335312	Motor & generator mfg	1998..	70 293	2 123 613	55 310	105 576	1 428 655	5 867 840	5 645 184	11 397 950	3	3
		1997..	74 595	2 182 005	58 204	116 507	1 464 208	6 167 088	6 046 993	12 236 737	X	X
335313	Switchgear & switchboard apparatus mfg	1998..	42 225	1 514 184	29 807	61 967	880 302	4 459 399	3 460 039	7 890 480	1	1
		1997..	40 906	1 443 658	28 566	58 479	843 617	4 326 298	3 205 635	7 531 086	X	X
335314	Relay & industrial control mfg	1998..	67 450	2 542 199	37 202	69 411	993 379	6 323 399	5 620 326	12 103 876	2	1
		1997..	68 207	2 426 903	38 649	70 828	968 148	6 250 178	5 622 199	11 864 157	X	X
3359	Other electrical equipment & component mfg	1998..	219 265	7 396 980	155 702	318 394	4 306 355	22 533 636	21 688 021	44 311 938	1	1
		1997..	211 287	6 950 089	151 546	305 445	4 082 586	20 728 253	21 008 361	41 650 396	X	X
33591	Battery mfg	1998..	31 197	1 082 269	24 578	50 532	770 977	3 505 597	3 438 385	6 954 643	1	2
		1997..	32 205	1 071 046	25 550	50 446	773 607	3 517 024	3 239 088	6 755 008	X	X
335911	Storage battery mfg	1998..	22 441	773 814	17 913	36 965	568 124	2 449 837	2 259 426	4 327 656	1	2
		1997..	23 288	789 579	18 703	37 478	586 721	2 168 025	2 244 003	4 432 112	X	X
335912	Primary battery mfg	1998..	8 756	308 455	6 665	13 567	202 853	1 455 761	1 178 960	2 626 987	1	3
		1997..	8 917	281 467	6 847	12 968	186 886	1 348 999	995 085	2 322 896	X	X
33592	Communication & energy wire & cable mfg	1998..	56 181	2 005 692	40 191	86 996	1 216 904	6 523 723	8 748 268	15 253 423	1	2
		1997..	54 856	1 897 515	39 576	83 659	1 149 000	6 213 207	9 081 041	15 249 877	X	X
335921	Fiber optic cable mfg	1998..	8 949	388 751	6 480	13 244	233 100	1 424 065	1 527 574	2 927 051	1	1
		1997..	8 589	364 654	6 200	12 272	216 609	1 370 361	1 451 218	2 767 017	X	X
335929	Other communication & energy wire mfg	1998..	47 232	1 616 941	33 711	73 753	983 804	5 099 658	7 220 694	12 326 372	1	2
		1997..	46 267	1 532 861	33 376	71 387	932 391	4 842 846	7 629 823	12 482 860	X	X

See footnotes at end of table.

Table 2. Statistics for Industry Groups and Industries: 1998 and 1997—Con.

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		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F
		A	B	C	D	E				H	I
336	Transportation equipment mfg—Con.										
3364	Aerospace product & parts mfg	1998.. 521 679	26 882 756	269 506	545 708	11 791 958	75 491 910	69 195 953	136 194 907	1	1
		1997.. 486 480	25 132 696	250 013	501 407	10 768 409	56 629 259	62 144 024	118 699 840	X	X
33641	Aerospace product & parts mfg	1998.. 521 679	26 882 756	269 506	545 708	11 791 958	75 491 910	69 195 953	136 194 907	1	1
		1997.. 486 480	25 132 696	250 013	501 407	10 768 409	56 629 259	62 144 024	118 699 840	X	X
336411	Aircraft mfg	1998.. 213 083	11 278 437	106 187	200 149	4 806 099	35 984 556	40 560 769	69 497 553	1	1
		1997.. 202 596	10 842 393	97 819	185 763	4 428 659	20 775 809	36 656 302	57 903 327	X	X
336412	Aircraft engine & engine parts mfg	1998.. 85 801	4 346 011	50 086	104 950	2 064 811	13 196 668	12 078 112	25 200 707	1	1
		1997.. 83 877	4 280 732	48 778	100 096	1 960 586	11 666 319	11 427 789	22 833 076	X	X
336413	Other aircraft part & auxiliary equipment mfg	1998.. 145 465	6 505 271	83 179	181 283	3 497 681	14 606 369	8 914 423	22 710 726	1	1
		1997.. 124 434	5 562 967	72 662	155 052	3 012 606	13 126 990	7 093 006	19 353 038	X	X
336414	Guided missile & space vehicle mfg	1998.. 52 955	3 422 407	17 857	34 539	863 977	9 032 697	6 252 477	14 784 810	1	1
		1997.. 51 398	3 123 246	18 500	35 996	815 692	8 422 165	5 510 454	14 545 616	X	X
336415	Guided missile & space vehicle propulsion unit & parts mfg	1998.. 16 685	978 396	7 294	14 824	354 622	1 966 806	870 143	2 764 314	1	1
		1997.. 17 738	1 031 920	7 903	15 557	363 756	2 062 154	1 061 215	3 101 378	X	X
336419	Other guided missile & space vehicle parts & auxiliary equip mfg	1998.. 7 689	352 234	4 904	9 963	204 768	704 814	520 029	1 236 797	1	1
		1997.. 6 437	291 438	4 351	8 943	187 110	575 822	395 258	963 405	X	X
3365	Railroad rolling stock mfg	1998.. 37 351	1 433 987	26 645	55 202	854 374	3 977 916	5 427 590	9 386 715	1	1
		1997.. 34 012	1 319 135	23 977	53 391	796 472	3 345 283	5 097 254	8 263 395	X	X
33651	Railroad rolling stock mfg	1998.. 37 351	1 433 987	26 645	55 202	854 374	3 977 916	5 427 590	9 386 715	1	1
		1997.. 34 012	1 319 135	23 977	53 391	796 472	3 345 283	5 097 254	8 263 395	X	X
336510	Railroad rolling stock mfg	1998.. 37 351	1 433 987	26 645	55 202	854 374	3 977 916	5 427 590	9 386 715	1	1
		1997.. 34 012	1 319 135	23 977	53 391	796 472	3 345 283	5 097 254	8 263 395	X	X
3366	Ship & boat building	1998.. 137 912	4 350 350	107 280	213 736	2 953 952	9 362 464	7 704 967	17 048 620	1	1
		1997.. 138 904	4 396 251	105 624	209 599	2 881 714	8 657 665	7 575 301	16 204 216	X	X
33661	Ship & boat building	1998.. 137 912	4 350 350	107 280	213 736	2 953 952	9 362 464	7 704 967	17 048 620	1	1
		1997.. 138 904	4 396 251	105 624	209 599	2 881 714	8 657 665	7 575 301	16 204 216	X	X
336611	Ship building & repairing	1998.. 94 595	3 232 249	72 156	144 684	2 176 641	6 634 976	4 508 357	11 143 333	1	1
		1997.. 97 482	3 362 277	72 376	144 866	2 184 633	6 254 666	4 327 510	10 582 176	X	X
336612	Boat building	1998.. 43 317	1 118 101	35 124	69 052	777 311	2 727 487	3 196 610	5 905 287	2	3
		1997.. 41 422	1 033 974	33 248	64 733	697 081	2 402 999	3 247 791	5 622 040	X	X
3369	Other transportation equipment mfg	1998.. 41 379	1 440 168	28 506	53 843	797 620	4 098 121	5 451 602	9 598 561	1	1
		1997.. 42 246	1 398 076	29 382	54 654	773 726	3 831 661	5 132 171	8 957 948	X	X
33699	Other transportation equipment mfg	1998.. 41 379	1 440 168	28 506	53 843	797 620	4 098 121	5 451 602	9 598 561	1	1
		1997.. 42 246	1 398 076	29 382	54 654	773 726	3 831 661	5 132 171	8 957 948	X	X
336991	Motorcycle, bicycle, & parts mfg	1998.. 16 269	620 738	11 776	22 983	365 023	1 588 411	1 741 988	3 346 237	3	2
		1997.. 17 218	623 364	12 844	24 503	368 087	1 608 897	1 806 750	3 390 111	X	X
336992	Military armored vehicle, tank, & tank component mfg	1998.. 5 091	259 094	2 345	4 978	106 018	726 072	445 399	1 177 477	1	1
		1997.. 5 822	268 623	2 729	5 499	114 471	546 077	476 770	1 068 421	X	X
336999	All other transportation equipment mfg	1998.. 20 019	560 336	14 385	25 883	326 578	1 783 638	3 264 215	5 074 847	1	1
		1997.. 19 206	506 089	13 809	24 652	291 168	1 676 687	2 848 651	4 499 416	X	X
337	Furniture & related product mfg	1998.. 631 636	16 185 101	512 032	1 001 984	11 007 866	38 148 620	32 439 852	70 416 635	1	1
		1997.. 606 794	15 034 218	486 889	939 389	10 212 128	34 896 386	29 485 537	64 359 154	X	X
3371	Household & institutional furniture & kitchen cabinet mfg	1998.. 408 555	9 555 118	343 132	669 933	6 926 490	20 962 383	19 251 228	40 115 479	1	1
		1997.. 389 453	8 786 833	323 537	615 000	6 341 096	19 164 110	17 323 459	36 462 177	X	X
33711	Wood kitchen cabinet & counter top mfg	1998.. 106 589	2 528 005	86 929	167 903	1 804 689	5 617 258	4 368 589	9 957 147	1	2
		1997.. 99 322	2 322 958	79 750	151 392	1 644 486	5 194 933	3 898 019	9 094 210	X	X
337110	Wood kitchen cabinet & counter top mfg	1998.. 106 589	2 528 005	86 929	167 903	1 804 689	5 617 258	4 368 589	9 957 147	1	2
		1997.. 99 322	2 322 958	79 750	151 392	1 644 486	5 194 933	3 898 019	9 094 210	X	X
33712	Household & institutional furniture mfg	1998.. 301 966	7 027 113	256 203	502 030	5 121 801	15 345 125	14 882 639	30 158 331	1	1
		1997.. 290 131	6 463 875	243 787	463 608	4 696 610	13 969 177	13 425 440	27 367 967	X	X
337121	Upholstered household furniture mfg	1998.. 93 913	2 134 986	81 361	153 793	1 642 573	4 264 626	4 855 937	9 118 880	1	1
		1997.. 90 009	2 022 565	77 441	144 224	1 535 379	4 023 169	4 321 830	8 319 729	X	X
337122	Nonupholstered wood household furniture mfg	1998.. 133 155	2 929 544	116 824	233 026	2 237 393	6 577 869	5 895 518	12 403 873	1	1
		1997.. 128 248	2 682 926	111 142	214 200	2 037 090	5 880 357	5 383 261	11 264 112	X	X
337124	Metal household furniture mfg	1998.. 23 749	573 551	19 202	38 475	386 694	1 451 128	1 337 426	2 780 427	2	5
		1997.. 22 835	503 957	18 317	35 838	340 022	1 238 409	1 176 035	2 418 562	X	X
337125	Household furniture (except wood & metal) mfg	1998.. 4 796	115 774	3 732	7 664	79 034	225 324	270 370	500 554	4	5
		1997.. 4 708	111 758	3 641	7 199	77 339	270 273	283 112	549 298	X	X
337127	Institutional furniture mfg	1998.. 41 990	1 184 153	31 090	60 861	701 915	2 664 890	2 357 104	5 022 043	2	4
		1997.. 40 058	1 058 278	29 498	54 904	640 787	2 406 615	2 099 422	4 495 552	X	X
337129	Wood television, radio, & sewing machine cabinet mfg	1998.. 4 364	89 105	3 995	8 210	74 193	161 289	166 284	332 554	1	2
		1997.. 4 273	84 391	3 748	7 243	65 993	150 714	161 780	320 714	X	X
3372	Office furniture (including fixtures) mfg	1998.. 178 340	5 477 182	136 162	265 522	3 371 350	13 533 846	9 620 646	23 086 163	1	1
		1997.. 174 652	5 198 998	132 160	262 013	3 232 766	12 590 495	8 958 883	21 549 280	X	X
33721	Office furniture (including fixtures) mfg	1998.. 178 340	5 477 182	136 162	265 522	3 371 350	13 533 846	9 620 646	23 086 163	1	1
		1997.. 174 652	5 198 998	132 160	262 013	3 232 766	12 590 495	8 958 883	21 549 280	X	X
337211	Wood office furniture mfg	1998.. 31 502	822 380	25 940	48 898	570 201	1 950 682	1 402 106	3 339 700	3	2
		1997.. 30 641	781 220	24 600	50 369	539 464	1 794 129	1 323 726	3 110 020	X	X
337212	Custom architectural woodwork & millwork mfg	1998.. 25 534	785 936	17 754	35 122	450 005	1 506 687	1 099 551	2 582 115	4	7
		1997.. 24 376	715 401	17 402	32 734	428 720	1 348 811	848 134	2 198 914	X	X
337214	Office furniture (except wood) mfg	1998.. 46 303	1 725 322	34 567	69 965	1 023 355	5 411 862	3 231 608	8 657 853	1	1
		1997.. 44 222	1 621 167	32 373	69 216	979 263	4 954 487	3 259 266	8 230 935	X	X
337215	Showcase, partition, shelving, & locker mfg	1998.. 75 002	2 143 544	57 901	111 536	1 327 789	4 664 614	3 887 381	8 506 494	2	2
		1997.. 75 413	2 081 210	57 785	109 694	1 285 319	4 493 068	3 527 757	8 009 411	X	X
3379	Other furniture related product mfg	1998.. 44 741	1 152 801	32 738	66 529	710 027	3 652 391	3 567 978	7 214 994	2	4
		1997.. 42 689	1 048 387	31 192	62 176	638 266					

Table 2. Statistics for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	All employees		Production workers			Value added by manufacture (\$1,000)	Cost of materials (\$1,000)	Value of shipments ¹ (\$1,000)	Relative standard error of estimate ² (percent) for column—	
		Number	Payroll (\$1,000)	Number	Hours (1,000)	Wages (\$1,000)				A	F
337	Furniture & related product mfg—Con.										
3379	Other furniture related product mfg—Con.										
33792	Blind & shade mfg	1997..	21 105	492 712	15 109	30 356	310 418	1 412 981	1 445 493	2 856 141	3 8
		1997..	19 617	436 757	13 892	28 338	266 786	1 157 307	1 230 310	2 393 564	X X
337920	Blind & shade mfg	1998..	21 105	492 712	15 109	30 356	310 418	1 412 981	1 445 493	2 856 141	3 8
		1997..	19 617	436 757	13 892	28 338	266 786	1 157 307	1 230 310	2 393 564	X X
339	Miscellaneous mfg	1998..	763 803	23 396 326	521 048	1 018 188	12 038 263	65 510 042	41 927 935	107 037 843	1 1
		1997..	733 946	21 934 826	497 539	959 697	11 104 787	61 944 111	38 875 448	100 808 702	X X
3391	Medical equipment & supplies mfg	1998..	319 890	11 365 899	205 498	396 657	5 250 344	34 073 934	16 057 217	50 060 776	1 1
		1997..	296 330	10 247 977	187 732	356 822	4 580 143	30 991 541	14 469 465	45 562 969	X X
33911	Medical equipment & supplies mfg	1998..	319 890	11 365 899	205 498	396 657	5 250 344	34 073 934	16 057 217	50 060 776	1 1
		1997..	296 330	10 247 977	187 732	356 822	4 580 143	30 991 541	14 469 465	45 562 969	X X
339111	Laboratory apparatus & furniture mfg	1998..	18 485	700 735	9 860	19 264	259 737	1 501 753	1 066 476	2 559 461	2 2
		1997..	18 253	686 742	9 388	18 670	257 045	1 405 095	1 048 768	2 471 153	X X
339112	Surgical & medical instrument mfg	1998..	110 869	4 388 288	66 832	130 012	1 796 599	14 426 359	5 786 466	20 167 343	1 1
		1997..	107 130	4 128 530	64 243	127 765	1 670 125	13 164 417	5 250 104	18 401 669	X X
339113	Surgical appliance & supplies mfg	1998..	93 938	3 508 003	59 254	115 054	1 541 162	11 218 523	6 066 460	17 224 481	1 2
		1997..	85 315	2 980 530	53 889	101 196	1 268 260	9 992 604	5 318 973	15 389 467	X X
339114	Dental equipment & supplies mfg	1998..	18 093	634 859	11 811	22 622	297 067	1 713 908	995 354	2 767 833	2 4
		1997..	18 072	613 286	11 780	21 937	284 469	1 758 959	967 714	2 699 867	X X
339115	Ophthalmic goods mfg	1998..	27 144	868 368	18 129	36 423	463 128	2 674 571	1 156 375	3 768 656	1 1
		1997..	26 366	814 242	17 936	36 389	456 771	2 511 264	1 084 122	3 607 813	X X
339116	Dental laboratories	1998..	51 362	1 265 646	39 612	73 282	892 651	2 538 820	986 087	3 573 003	1 2
		1997..	41 194	1 024 647	30 496	50 865	643 473	2 159 202	799 784	2 993 000	X X
3399	Other miscellaneous mfg	1998..	443 913	12 030 427	315 550	621 531	6 787 918	31 436 108	25 870 719	56 977 067	1 1
		1997..	437 616	11 686 849	309 807	602 875	6 524 644	30 952 570	24 405 983	55 245 733	X X
33991	Jewelry & silverware mfg	1998..	59 421	1 560 675	41 668	77 086	853 535	3 853 888	4 476 041	8 301 189	2 3
		1997..	61 223	1 532 824	43 194	77 669	846 459	4 068 400	4 482 225	8 513 365	X X
339911	Jewelry (except costume) mfg	1998..	33 122	895 518	23 220	44 919	479 081	2 190 560	2 938 523	5 202 239	3 5
		1997..	34 773	886 562	24 381	43 348	480 639	2 434 156	3 003 361	5 422 634	X X
339912	Silverware & plated ware mfg	1998..	6 364	209 400	4 360	6 200	113 742	567 326	374 760	902 775	5 5
		1997..	6 481	187 166	4 564	7 263	108 452	539 593	384 116	905 980	X X
339913	Jewelers' material & lapidary work mfg	1998..	6 080	140 583	4 051	7 325	78 038	299 647	627 879	921 199	4 5
		1997..	5 396	132 940	3 650	6 717	70 364	296 187	620 457	909 066	X X
339914	Costume jewelry & novelty mfg	1998..	13 855	315 173	10 038	18 641	182 674	796 355	534 879	1 274 975	3 4
		1997..	14 573	326 156	10 599	20 341	187 004	798 464	474 291	1 275 685	X X
33992	Sporting & athletic goods mfg	1998..	69 389	1 820 854	51 208	98 698	1 018 435	6 121 145	5 206 070	11 209 152	2 4
		1997..	69 664	1 841 264	50 600	98 279	1 019 771	5 821 028	4 764 793	10 591 160	X X
339920	Sporting & athletic goods mfg	1998..	69 389	1 820 854	51 208	98 698	1 018 435	6 121 145	5 206 070	11 209 152	2 4
		1997..	69 664	1 841 264	50 600	98 279	1 019 771	5 821 028	4 764 793	10 591 160	X X
33993	Doll, toy, & game mfg	1998..	33 338	860 471	24 357	47 606	493 941	2 525 027	2 128 280	4 635 152	1 4
		1997..	32 693	830 345	24 002	44 441	471 092	2 819 749	1 969 613	4 782 493	X X
339931	Doll & stuffed toy mfg	1998..	3 645	67 220	2 922	5 537	48 389	200 131	111 221	306 775	9 10
		1997..	3 393	63 722	2 525	4 607	41 609	193 688	104 705	299 821	X X
339932	Game, toy, & children's vehicle mfg	1998..	29 693	793 251	21 476	42 069	445 552	2 324 896	2 017 059	4 328 377	1 4
		1997..	29 300	766 623	21 437	39 834	429 483	2 626 061	1 864 908	4 482 672	X X
33994	Office supplies (except paper) mfg	1998..	28 617	810 047	20 009	40 635	476 420	2 941 822	2 063 440	4 876 554	7 6
		1997..	30 138	790 191	21 209	42 109	472 200	2 602 844	1 767 828	4 340 456	X X
339941	Pen & mechanical pencil mfg	1998..	9 308	305 747	6 796	13 528	186 074	1 116 403	848 098	1 922 076	3 5
		1997..	8 394	261 580	6 000	11 994	157 989	954 982	673 281	1 590 770	X X
339942	Lead pencil & art good mfg	1998..	7 619	207 329	5 840	12 481	127 128	809 038	573 243	1 376 169	2 1
		1997..	7 990	195 586	6 197	12 417	119 513	799 716	428 793	1 234 456	X X
339943	Marking device mfg	1998..	8 061	187 576	4 946	9 763	108 402	422 971	236 701	656 630	2 2
		1997..	7 831	185 316	4 696	9 380	102 830	411 190	235 310	643 007	X X
339944	Carbon paper & inked ribbon mfg	1998..	3 629	109 395	2 427	4 864	54 815	593 410	405 398	921 678	53 28
		1997..	5 923	147 709	4 316	8 318	91 868	436 956	430 444	872 223	X X
33995	Sign mfg	1998..	84 260	2 426 297	55 636	110 156	1 265 209	4 673 065	3 450 184	8 102 104	1 2
		1997..	83 052	2 386 738	54 029	103 439	1 207 531	4 595 289	3 476 042	7 925 287	X X
339950	Sign mfg	1998..	84 260	2 426 297	55 636	110 156	1 265 209	4 673 065	3 450 184	8 102 104	1 2
		1997..	83 052	2 386 738	54 029	103 439	1 207 531	4 595 289	3 476 042	7 925 287	X X
33999	All other miscellaneous mfg	1998..	168 887	4 552 084	122 673	247 350	2 680 378	11 321 161	8 546 704	19 852 917	1 2
		1997..	160 846	4 305 487	116 773	236 938	2 507 591	11 045 260	8 080 982	19 092 972	X X
339991	Gasket, packing, & sealing device mfg	1998..	42 670	1 318 999	30 266	61 427	794 365	3 107 708	2 122 358	5 282 376	2 5
		1997..	41 655	1 279 026	29 789	61 971	755 939	3 083 892	2 107 261	5 195 105	X X
339992	Musical instrument mfg	1998..	14 680	429 306	11 896	24 979	281 876	830 193	532 577	1 376 783	6 8
		1997..	13 411	363 022	10 824	21 915	243 853	853 590	503 951	1 360 312	X X
339993	Fastener, button, needle, & pin mfg ..	1998..	7 980	211 529	5 845	12 934	125 177	460 801	361 303	818 435	1 4
		1997..	7 842	206 148	5 614	12 707	122 337	494 767	345 043	828 918	X X
339994	Broom, brush, & mop mfg	1998..	16 257	428 607	12 329	24 328	251 448	1 178 755	950 616	2 140 658	9 7
		1997..	17 447	449 669	13 158	25 762	271 004	1 169 473	948 697	2 099 160	X X
339995	Burial casket mfg	1998..	7 499	216 242	5 694	10 909	149 399	920 910	330 635	1 251 721	1 1
		1997..	6 962	212 491	5 194	10 613	145 475	882 922	384 379	1 271 184	X X
339999	All other miscellaneous mfg	1998..	79 801	1 947 402	56 644	112 773	1 078 113	4 822 795	4 249 215	8 982 943	1 1
		1997..	73 529	1 795 131	52 194	103 970	968 983	4 560 616	3 791 651	8 338 293	X X

¹Data represent value of shipments for most industries. For industries 311411, 311412, 311421, 311422, 311711, 311712, 311941, 311999, 312140, 312210, 312221, and 312229 value of production is shown. For industry 336611, value of work done is shown.

²Description of relative standard error of estimate is given in Appendix B. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note: 1997 data may differ from that published in the 1997 Census of Manufactures final industry series because of changes encountered in subsequent 1997 census review or revisions discovered during 1998 Annual Survey of Manufactures review.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997

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

NAICS code	Industry group and industry		Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
			All employees	Total	Payroll	Total fringe benefits	
31-33	Manufacturing	1998..	17 056 922	739 132 265	590 038 804	149 093 461	1
		1997..	16 885 806	719 798 813	572 264 844	147 533 969	X
311	Food mfg	1998..	1 501 231	50 280 295	39 684 355	10 595 941	1
		1997..	1 470 469	48 876 501	38 518 457	10 358 044	X
3111	Animal food mfg	1998..	46 378	1 948 242	1 537 297	410 945	1
		1997..	46 870	1 883 411	1 486 128	397 283	X
31111	Animal food mfg	1998..	46 378	1 948 242	1 537 297	410 945	1
		1997..	46 870	1 883 411	1 486 128	397 283	X
311111	Dog & cat food mfg	1998..	14 246	689 584	532 681	156 903	1
		1997..	14 106	652 112	505 730	146 382	X
311119	Other animal food mfg	1998..	32 132	1 258 658	1 004 617	254 041	1
		1997..	32 764	1 231 299	980 398	250 901	X
3112	Grain & oilseed milling	1998..	58 405	2 984 494	2 342 851	641 644	1
		1997..	59 338	3 005 889	2 362 311	643 578	X
31121	Flour milling & malt mfg	1998..	17 067	743 768	595 043	148 725	2
		1997..	17 972	783 417	622 191	161 226	X
311211	Flour milling	1998..	12 117	518 864	420 217	98 647	1
		1997..	12 799	554 048	445 650	108 398	X
311212	Rice milling	1998..	3 664	160 714	121 482	39 233	4
		1997..	3 832	158 430	119 756	38 674	X
311213	Malt mfg	1998..	1 286	64 189	53 344	10 845	15
		1997..	1 341	70 939	56 785	14 154	X
31122	Starch & vegetable fats & oils mfg	1998..	26 385	1 314 262	1 021 695	292 568	1
		1997..	26 970	1 316 466	1 022 051	294 415	X
311221	Wet corn milling	1998..	9 326	526 407	414 429	111 978	1
		1997..	9 217	545 541	422 533	123 008	X
311222	Soybean processing	1998..	6 388	300 961	238 814	62 146	1
		1997..	6 601	285 871	229 727	56 144	X
311223	Other oilseed processing	1998..	2 444	84 261	66 167	18 094	1
		1997..	2 667	93 997	73 451	20 546	X
311225	Fats & oils refining & blending	1998..	8 227	402 634	302 285	100 349	3
		1997..	8 485	391 057	296 340	94 717	X
31123	Breakfast cereal mfg	1998..	14 953	926 464	726 113	200 351	1
		1997..	14 396	906 006	718 069	187 937	X
311230	Breakfast cereal mfg	1998..	14 953	926 464	726 113	200 351	1
		1997..	14 396	906 006	718 069	187 937	X
3113	Sugar & confectionery product mfg	1998..	84 109	3 380 853	2 631 019	749 834	1
		1997..	84 906	3 282 309	2 561 683	720 626	X
31131	Sugar mfg	1998..	16 728	786 673	627 566	159 107	1
		1997..	16 577	771 550	612 809	158 741	X
311311	Sugarcane mills	1998..	4 903	201 817	159 956	41 861	3
		1997..	4 968	213 877	168 910	44 967	X
311312	Cane sugar refining	1998..	3 938	254 220	198 015	56 205	1
		1997..	3 891	246 696	191 663	55 033	X
311313	Beet sugar mfg	1998..	7 888	330 636	269 595	61 041	2
		1997..	7 718	310 977	252 236	58 741	X
31132	Chocolate & confectionery mfg from cacao beans	1998..	10 000	474 220	361 589	112 631	1
		1997..	9 946	501 341	383 045	118 296	X
311320	Chocolate & confectionery mfg from cacao beans	1998..	10 000	474 220	361 589	112 631	1
		1997..	9 946	501 341	383 045	118 296	X
31133	Confectionery mfg from purchased chocolate	1998..	29 859	1 120 594	865 521	255 073	1
		1997..	32 871	1 104 737	856 440	248 297	X
311330	Confectionery mfg from purchased chocolate	1998..	29 859	1 120 594	865 521	255 073	1
		1997..	32 871	1 104 737	856 440	248 297	X
31134	Nonchocolate confectionery mfg	1998..	27 522	999 365	776 342	223 023	1
		1997..	25 512	904 681	709 389	195 292	X
311340	Nonchocolate confectionery mfg	1998..	27 522	999 365	776 342	223 023	1
		1997..	25 512	904 681	709 389	195 292	X
3114	Fruit & vegetable preserving & specialty food mfg	1998..	190 789	6 462 402	4 983 609	1 478 793	1
		1997..	192 801	6 419 645	4 924 817	1 494 828	X
31141	Frozen food mfg	1998..	97 054	2 963 113	2 294 056	669 057	1
		1997..	94 959	2 867 989	2 214 730	653 259	X
311411	Frozen fruit, juice, & vegetable mfg	1998..	49 668	1 439 331	1 106 423	332 907	1
		1997..	46 900	1 393 863	1 062 357	331 506	X
311412	Frozen specialty food mfg	1998..	47 385	1 523 783	1 187 633	336 149	1
		1997..	48 059	1 474 126	1 152 373	321 753	X
31142	Fruit & vegetable canning, pickling, & drying	1998..	93 735	3 499 289	2 689 553	809 736	1
		1997..	97 842	3 551 656	2 710 087	841 569	X
311421	Fruit & vegetable canning	1998..	64 156	2 333 214	1 777 296	555 917	1
		1997..	64 016	2 304 084	1 726 293	577 791	X
311422	Specialty canning	1998..	16 210	683 907	538 217	145 689	1
		1997..	19 211	762 517	604 171	158 346	X
311423	Dried & dehydrated food mfg	1998..	13 370	482 169	374 039	108 130	1
		1997..	14 615	485 055	379 623	105 432	X
3115	Dairy product mfg	1998..	133 641	5 476 474	4 229 397	1 247 077	1
		1997..	133 127	5 400 551	4 183 182	1 217 369	X
31151	Dairy product (except frozen) mfg	1998..	114 412	4 717 935	3 621 121	1 096 814	1
		1997..	113 188	4 637 162	3 571 119	1 066 043	X
311511	Fluid milk mfg	1998..	58 540	2 527 081	1 942 700	584 381	1
		1997..	58 276	2 499 840	1 922 325	577 515	X
311512	Creamery butter mfg	1998..	1 738	69 310	57 012	12 298	10
		1997..	1 827	71 563	56 524	15 039	X
311513	Cheese mfg	1998..	37 141	1 317 908	1 010 546	307 362	1
		1997..	36 943	1 312 923	1 017 073	295 850	X
311514	Dry, condensed, & evaporated dairy product mfg	1998..	16 993	803 635	610 862	192 773	2
		1997..	16 142	752 836	575 197	177 639	X
31152	Ice cream & frozen dessert mfg	1998..	19 229	758 540	608 277	150 263	2
		1997..	19 939	763 389	612 063	151 326	X
311520	Ice cream & frozen dessert mfg	1998..	19 229	758 540	608 277	150 263	2
		1997..	19 939	763 389	612 063	151 326	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
311	Food mfg—Con.					
3116	Meat product mfg	1998.. 467 046	12 907 600	10 427 411	2 480 188	1
		1997.. 463 313	12 286 748	9 900 087	2 386 661	X
31161	Animal slaughtering & processing	1998.. 467 046	12 907 600	10 427 411	2 480 188	1
		1997.. 463 313	12 286 748	9 900 087	2 386 661	X
311611	Animal (except poultry) slaughtering	1998.. 139 430	4 092 946	3 371 106	721 840	1
		1997.. 142 421	3 968 443	3 257 763	710 680	X
311612	Meat processed from carcasses	1998.. 94 885	3 271 968	2 584 628	687 341	1
		1997.. 88 425	2 932 498	2 326 054	606 444	X
311613	Rendering & meat byproduct processing	1998.. 9 641	374 538	291 043	83 496	4
		1997.. 8 804	341 303	269 176	72 127	X
311615	Poultry processing	1998.. 223 090	5 168 147	4 180 635	987 512	1
		1997.. 223 663	5 044 504	4 047 094	997 410	X
3117	Seafood product preparation & packaging	1998.. 42 068	1 051 202	887 132	164 070	3
		1997.. 41 338	1 075 313	902 830	172 483	X
31171	Seafood product preparation & packaging	1998.. 42 068	1 051 202	887 132	164 070	3
		1997.. 41 338	1 075 313	902 830	172 483	X
311711	Seafood canning	1998.. 5 553	147 470	122 176	25 294	4
		1997.. 5 371	149 279	121 870	27 409	X
311712	Fresh & frozen seafood processing	1998.. 36 515	903 731	764 956	138 776	4
		1997.. 35 967	926 034	780 960	145 074	X
3118	Bakeries & tortilla mfg	1998.. 327 405	10 443 604	8 186 086	2 257 518	1
		1997.. 299 072	10 057 765	7 832 994	2 224 771	X
31181	Bread & bakery product mfg	1998.. 252 255	7 597 286	5 983 649	1 613 637	1
		1997.. 222 958	7 157 833	5 600 035	1 557 798	X
311811	Retail bakeries	1998.. 74 784	1 198 479	938 196	260 283	2
		1997.. 43 658	735 792	569 005	166 787	X
311812	Commercial bakeries	1998.. 162 862	5 909 783	4 660 148	1 249 635	1
		1997.. 164 193	5 918 221	4 637 526	1 280 695	X
311813	Frozen cakes, pies, & other pastries mfg	1998.. 14 609	489 024	385 305	103 719	6
		1997.. 15 107	503 820	393 504	110 316	X
31182	Cookie, cracker, & pasta mfg	1998.. 63 715	2 565 215	1 974 469	590 746	1
		1997.. 64 771	2 629 838	2 015 380	614 458	X
311821	Cookie & cracker mfg	1998.. 42 504	1 736 566	1 320 223	416 343	1
		1997.. 43 019	1 776 931	1 349 409	427 522	X
311822	Flour mixes & dough mfg from purchased flour	1998.. 15 470	624 995	494 558	130 438	1
		1997.. 15 689	629 950	491 511	138 439	X
311823	Dry pasta mfg	1998.. 5 741	203 654	159 688	43 966	1
		1997.. 6 063	222 957	174 460	48 497	X
31183	Tortilla mfg	1998.. 11 435	281 103	227 968	53 134	1
		1997.. 11 343	270 094	217 579	52 515	X
311830	Tortilla mfg	1998.. 11 435	281 103	227 968	53 134	1
		1997.. 11 343	270 094	217 579	52 515	X
3119	Other food mfg	1998.. 151 390	5 625 424	4 459 551	1 165 873	1
		1997.. 149 704	5 464 870	4 364 425	1 100 445	X
31191	Snack food mfg	1998.. 47 879	1 836 543	1 428 861	407 683	1
		1997.. 47 471	1 754 979	1 388 656	366 323	X
311911	Roasted nuts & peanut butter mfg	1998.. 10 723	384 791	296 536	88 255	3
		1997.. 10 493	355 465	272 890	82 575	X
311919	Other snack food mfg	1998.. 37 156	1 451 753	1 132 325	319 428	1
		1997.. 36 978	1 399 514	1 115 766	283 748	X
31192	Coffee & tea mfg	1998.. 12 864	550 242	425 680	124 562	1
		1997.. 12 895	577 133	445 357	131 776	X
311920	Coffee & tea mfg	1998.. 12 864	550 242	425 680	124 562	1
		1997.. 12 895	577 133	445 357	131 776	X
31193	Flavoring syrup & concentrate mfg	1998.. 5 854	274 436	218 162	56 274	1
		1997.. 6 243	279 026	225 770	53 256	X
311930	Flavoring syrup & concentrate mfg	1998.. 5 854	274 436	218 162	56 274	1
		1997.. 6 243	279 026	225 770	53 256	X
31194	Seasoning & dressing mfg	1998.. 25 748	1 149 348	916 661	232 687	3
		1997.. 26 145	1 115 842	901 252	214 590	X
311941	Mayonnaise, dressing, & other prepared sauce mfg	1998.. 13 662	556 298	434 374	121 924	2
		1997.. 13 927	556 235	443 903	112 332	X
311942	Spice & extract mfg	1998.. 12 086	593 049	482 287	110 763	5
		1997.. 12 218	559 607	457 349	102 258	X
31199	All other food mfg	1998.. 59 045	1 814 855	1 470 188	344 667	1
		1997.. 56 950	1 737 890	1 403 390	334 500	X
311991	Perishable prepared food mfg	1998.. 21 271	585 651	490 802	94 849	3
		1997.. 20 796	561 806	463 757	98 049	X
311999	All other miscellaneous food mfg	1998.. 37 774	1 229 204	979 385	249 819	1
		1997.. 36 154	1 176 084	939 633	236 451	X
312	Beverage & tobacco product mfg	1998.. 176 465	8 941 873	6 865 318	2 076 555	1
		1997.. 175 996	8 810 878	6 746 774	2 064 104	X
3121	Beverage mfg	1998.. 142 495	6 806 754	5 325 863	1 480 891	1
		1997.. 142 361	6 613 456	5 150 414	1 463 042	X
31211	Soft drink & ice mfg	1998.. 83 387	3 446 618	2 709 388	737 230	1
		1997.. 83 372	3 334 325	2 631 398	702 927	X
312111	Soft drink mfg	1998.. 73 698	3 117 998	2 443 957	674 041	1
		1997.. 73 449	3 024 547	2 380 796	643 751	X
312112	Bottled water mfg	1998.. 4 719	182 530	144 103	38 427	4
		1997.. 4 661	168 324	132 426	35 898	X
312113	Ice mfg	1998.. 4 970	146 089	121 328	24 761	4
		1997.. 5 262	141 454	118 176	23 278	X
31212	Breweries	1998.. 32 177	2 104 092	1 627 780	476 312	1
		1997.. 34 251	2 091 257	1 598 573	492 684	X
312120	Breweries	1998.. 32 177	2 104 092	1 627 780	476 312	1
		1997.. 34 251	2 091 257	1 598 573	492 684	X
31213	Wineries	1998.. 20 435	927 897	733 246	194 651	1
		1997.. 18 193	860 792	668 051	192 741	X
312130	Wineries	1998.. 20 435	927 897	733 246	194 651	1
		1997.. 18 193	860 792	668 051	192 741	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
312	Beverage & tobacco product mfg—Con.					
3121	Beverage mfg—Con.					
31214	Distilleries	1998.. 6 495	328 147	255 449	72 698	1
		1997.. 6 545	327 082	252 392	74 690	X
312140	Distilleries	1998.. 6 495	328 147	255 449	72 698	1
		1997.. 6 545	327 082	252 392	74 690	X
3122	Tobacco mfg	1998.. 33 970	2 135 119	1 539 455	595 664	1
		1997.. 33 635	2 197 422	1 596 360	601 062	X
31221	Tobacco stemming & redrying	1998.. 5 498	164 313	130 582	33 731	1
		1997.. 5 085	148 746	115 795	32 951	X
312210	Tobacco stemming & redrying	1998.. 5 498	164 313	130 582	33 731	1
		1997.. 5 085	148 746	115 795	32 951	X
31222	Tobacco product mfg	1998.. 28 472	1 970 806	1 408 873	561 933	1
		1997.. 28 550	2 048 676	1 480 565	568 111	X
312221	Cigarette mfg	1998.. 20 553	1 631 876	1 158 857	473 019	1
		1997.. 21 302	1 738 062	1 246 557	491 505	X
312229	Other tobacco product mfg	1998.. 7 919	338 930	250 016	88 914	1
		1997.. 7 248	310 614	234 008	76 606	X
313	Textile mills	1998.. 379 775	12 136 580	9 898 685	2 237 895	1
		1997.. 393 473	12 371 351	10 094 773	2 276 578	X
3131	Fiber, yarn, & thread mills	1998.. 81 277	2 354 021	1 905 753	448 268	1
		1997.. 83 259	2 345 841	1 908 390	437 451	X
31311	Fiber, yarn, & thread mills	1998.. 81 277	2 354 021	1 905 753	448 268	1
		1997.. 83 259	2 345 841	1 908 390	437 451	X
313111	Yarn spinning mills	1998.. 57 820	1 648 753	1 333 391	315 362	1
		1997.. 59 272	1 662 275	1 349 616	312 659	X
313112	Yarn texturing, throwing, & twisting mills	1998.. 19 412	591 987	483 804	108 183	3
		1997.. 20 256	579 078	478 414	100 664	X
313113	Thread mills	1998.. 4 044	113 281	88 558	24 723	1
		1997.. 3 731	104 488	80 360	24 128	X
3132	Fabric mills	1998.. 211 882	6 818 571	5 589 332	1 229 238	1
		1997.. 217 971	6 875 146	5 624 530	1 250 616	X
31321	Broadwoven fabric mills	1998.. 130 041	4 175 872	3 431 725	744 147	1
		1997.. 132 895	4 183 402	3 435 719	747 683	X
313210	Broadwoven fabric mills	1998.. 130 041	4 175 872	3 431 725	744 147	1
		1997.. 132 895	4 183 402	3 435 719	747 683	X
31322	Narrow fabric mills & schiffli machine embroidery	1998.. 19 922	542 988	444 495	98 493	4
		1997.. 20 514	544 670	450 516	94 354	X
313221	Narrow fabric mills	1998.. 16 155	451 470	367 543	83 927	4
		1997.. 16 584	452 749	371 752	80 997	X
313222	Schiffli machine embroidery	1998.. 3 767	91 518	76 953	14 566	13
		1997.. 3 930	91 921	78 564	13 357	X
31323	Nonwoven fabric mills	1998.. 20 579	893 285	714 033	179 252	2
		1997.. 21 014	880 102	689 402	190 700	X
313230	Nonwoven fabric mills	1998.. 20 579	893 285	714 033	179 252	2
		1997.. 21 014	880 102	689 402	190 700	X
31324	Knit fabric mills	1998.. 41 341	1 206 427	999 079	207 348	1
		1997.. 43 548	1 266 972	1 049 093	217 879	X
313241	Weft knit fabric mills	1998.. 24 446	699 289	576 693	122 596	1
		1997.. 24 903	701 991	578 598	123 393	X
313249	Other knit fabric & lace mills	1998.. 16 895	507 138	422 386	84 752	1
		1997.. 18 645	564 981	470 495	94 486	X
3133	Textile & fabric finishing & fabric coating mills	1998.. 86 616	2 963 988	2 403 600	560 388	3
		1997.. 92 243	3 150 364	2 561 853	588 511	X
31331	Textile & fabric finishing mills	1998.. 75 175	2 434 242	2 004 459	429 782	4
		1997.. 80 651	2 638 846	2 174 274	464 572	X
313311	Broadwoven fabric finishing mills	1998.. 48 190	1 590 533	1 310 699	279 834	6
		1997.. 51 174	1 729 198	1 424 561	304 637	X
313312	Textile & fabric finishing mills	1998.. 26 985	843 709	693 760	149 948	4
		1997.. 29 477	909 648	749 713	159 935	X
31332	Fabric coating mills	1998.. 11 441	529 746	399 141	130 606	3
		1997.. 11 592	511 518	387 579	123 939	X
313320	Fabric coating mills	1998.. 11 441	529 746	399 141	130 606	3
		1997.. 11 592	511 518	387 579	123 939	X
314	Textile product mills	1998.. 232 167	6 213 256	5 122 666	1 090 590	2
		1997.. 235 489	6 160 004	5 098 292	1 061 712	X
3141	Textile furnishings mills	1998.. 126 749	3 401 287	2 809 522	591 765	1
		1997.. 126 911	3 342 780	2 769 273	573 507	X
31411	Carpet & rug mills	1998.. 53 027	1 661 073	1 364 049	297 024	1
		1997.. 52 238	1 603 395	1 333 603	269 792	X
314110	Carpet & rug mills	1998.. 53 027	1 661 073	1 364 049	297 024	1
		1997.. 52 238	1 603 395	1 333 603	269 792	X
31412	Curtain & linen mills	1998.. 73 722	1 740 214	1 445 472	294 741	2
		1997.. 74 673	1 739 385	1 435 670	303 715	X
314121	Curtain & drapery mills	1998.. 27 015	603 980	498 173	105 807	3
		1997.. 25 508	552 191	452 819	99 372	X
314129	Other household textile product mills	1998.. 46 706	1 136 233	947 299	188 934	2
		1997.. 49 165	1 187 194	982 851	204 343	X
3149	Other textile product mills	1998.. 105 418	2 811 970	2 313 145	498 825	4
		1997.. 108 578	2 817 224	2 329 019	488 205	X
31491	Textile bag & canvas mills	1998.. 32 736	810 686	686 316	124 370	1
		1997.. 32 853	795 489	669 375	126 114	X
314911	Textile bag mills	1998.. 13 996	304 375	256 803	47 572	2
		1997.. 14 104	301 926	253 946	47 980	X
314912	Canvas & related product mills	1998.. 18 740	506 311	429 513	76 798	2
		1997.. 18 749	493 563	415 429	78 134	X

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NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
314	Textile product mills—Con.					
3149	Other textile product mills—Con.					
31499	All other textile product mills	1998.. 72 682	2 001 284	1 626 828	374 455	5
		1997.. 75 725	2 021 735	1 659 644	362 091	X
314991	Rope, cordage, & twine mills	1998.. 6 310	200 149	162 137	38 012	11
		1997.. 6 417	193 861	159 268	34 593	X
314992	Tire cord & tire fabric mills	1998.. 4 983	203 863	147 712	56 150	1
		1997.. 5 105	206 284	153 290	52 994	X
314999	All other miscellaneous textile product mills	1998.. 61 389	1 597 272	1 316 979	280 293	6
		1997.. 64 203	1 621 590	1 347 086	274 504	X
315	Apparel mfg	1998.. 661 266	14 555 932	12 144 756	2 411 176	1
		1997.. 718 165	15 313 965	12 728 242	2 585 723	X
3151	Apparel knitting mills	1998.. 94 052	2 270 719	1 886 744	383 976	1
		1997.. 105 580	2 481 134	2 042 388	438 746	X
31511	Hosiery & sock mills	1998.. 49 170	1 165 345	978 339	187 006	1
		1997.. 53 222	1 201 174	995 834	205 340	X
315111	Sheer hosiery mills	1998.. 15 098	369 043	306 355	62 687	1
		1997.. 17 579	414 978	340 090	74 888	X
315119	Other hosiery & sock mills	1998.. 34 073	796 303	671 983	124 319	2
		1997.. 35 643	786 196	655 744	130 452	X
31519	Other apparel knitting mills	1998.. 44 882	1 105 374	908 405	196 969	1
		1997.. 52 358	1 279 960	1 046 554	233 406	X
315191	Outerwear knitting mills	1998.. 38 216	946 326	783 122	163 205	1
		1997.. 45 417	1 118 626	916 152	202 474	X
315192	Underwear & nightwear knitting mills	1998.. 6 666	159 048	125 283	33 765	1
		1997.. 6 941	161 334	130 402	30 932	X
3152	Cut & sew apparel mfg	1998.. 512 830	11 008 304	9 183 123	1 825 181	1
		1997.. 556 776	11 531 559	9 590 440	1 941 119	X
31521	Cut & sew apparel contractors	1998.. 164 459	2 631 246	2 243 991	387 256	2
		1997.. 199 873	3 052 296	2 602 151	450 145	X
315211	Men's & boys' cut & sew apparel contractors ..	1998.. 43 274	785 213	647 039	138 173	3
		1997.. 50 956	848 287	700 107	148 180	X
315212	Women's, girls', & infants' cut & sew apparel contractors	1998.. 121 185	1 846 034	1 596 952	249 082	2
		1997.. 148 917	2 204 009	1 902 044	301 965	X
31522	Men's & boys' cut & sew apparel mfg	1998.. 166 584	3 720 474	2 978 738	741 736	1
		1997.. 174 138	3 802 489	3 032 983	769 506	X
315221	Men's & boys' cut & sew underwear & nightwear mfg	1998.. 8 003	167 928	133 894	34 033	1
		1997.. 9 771	208 230	162 648	45 582	X
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	1998.. 21 253	557 719	439 244	118 475	1
		1997.. 22 310	587 251	466 734	120 517	X
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	1998.. 43 164	971 697	796 865	174 832	1
		1997.. 48 389	1 053 590	859 168	194 422	X
315224	Men's & boys' cut & sew trouser, slack, & jean mfg	1998.. 46 990	1 109 705	858 099	251 606	1
		1997.. 45 219	1 014 857	775 607	239 250	X
315225	Men's & boys' cut & sew work clothing mfg	1998.. 22 950	413 850	336 270	77 579	3
		1997.. 23 363	431 031	347 030	84 001	X
315228	Men's & boys' cut & sew other outerwear mfg ..	1998.. 24 224	499 576	414 366	85 210	1
		1997.. 25 086	507 530	421 796	85 734	X
31523	Women's & girls' cut & sew apparel mfg	1998.. 157 456	4 104 748	3 495 153	609 595	1
		1997.. 157 507	4 121 444	3 488 660	632 784	X
315231	Women's & girls' cut/sew lingerie & nightwear mfg	1998.. 22 223	492 626	404 722	87 905	4
		1997.. 24 610	514 037	423 442	90 595	X
315232	Women's & girls' cut & sew blouse & shirt mfg	1998.. 29 118	809 441	704 334	105 107	1
		1997.. 26 178	637 148	553 543	83 605	X
315233	Women's & girls' cut & sew dress mfg	1998.. 30 743	906 164	795 641	110 523	1
		1997.. 29 503	840 676	736 916	103 760	X
315234	Women's & girls' cut & sew suit, coat, skirt mfg	1998.. 18 646	582 221	491 198	91 022	3
		1997.. 20 363	632 209	530 011	102 198	X
315239	Women's & girls' cut & sew other outerwear mfg	1998.. 56 726	1 314 295	1 099 258	215 037	1
		1997.. 56 853	1 497 374	1 244 748	252 626	X
31529	Other cut & sew apparel mfg	1998.. 24 331	551 835	465 241	86 594	1
		1997.. 25 258	555 330	466 646	88 684	X
315291	Infants' cut & sew apparel mfg	1998.. 8 903	194 281	159 054	35 227	1
		1997.. 9 457	191 290	152 721	38 569	X
315292	Fur & leather apparel mfg	1998.. 1 714	47 277	47 939	5 338	7
		1997.. 2 136	52 535	46 487	6 048	X
315299	All other cut & sew apparel mfg	1998.. 13 713	310 277	264 248	46 029	2
		1997.. 13 665	311 505	267 438	44 067	X
3159	Apparel accessories & other apparel mfg	1998.. 54 384	1 276 909	1 074 889	202 019	1
		1997.. 55 809	1 301 272	1 095 414	205 858	X
31599	Apparel accessories & other apparel mfg	1998.. 54 384	1 276 909	1 074 889	202 019	1
		1997.. 55 809	1 301 272	1 095 414	205 858	X
315991	Hat, cap, & millinery mfg	1998.. 17 015	365 001	307 176	57 825	1
		1997.. 17 543	366 306	307 966	58 340	X
315992	Glove & mitten mfg	1998.. 5 971	139 198	116 454	22 743	2
		1997.. 6 526	145 499	121 217	24 282	X
315993	Men's & boys' neckwear mfg	1998.. 4 985	142 252	123 696	18 557	6
		1997.. 4 936	134 197	117 274	16 923	X
315999	Other apparel accessories & other apparel mfg	1998.. 26 413	630 458	527 564	102 894	1
		1997.. 26 804	655 270	548 957	106 313	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
			All employees	Total	Payroll	Total fringe benefits	
316	Leather & allied product mfg	1998..	81 177	2 202 862	1 807 484	395 378	1
		1997..	86 428	2 272 499	1 863 422	409 077	X
3161	Leather & hide tanning & finishing	1998..	15 545	533 751	432 890	100 860	1
		1997..	15 317	524 004	423 993	100 011	X
31611	Leather & hide tanning & finishing	1998..	15 545	533 751	432 890	100 860	1
		1997..	15 317	524 004	423 993	100 011	X
316110	Leather & hide tanning & finishing	1998..	15 545	533 751	432 890	100 860	1
		1997..	15 317	524 004	423 993	100 011	X
3162	Footwear mfg	1998..	37 683	969 798	787 647	182 151	2
		1997..	42 359	1 033 492	837 778	195 714	X
31621	Footwear mfg	1998..	37 683	969 798	787 647	182 151	2
		1997..	42 359	1 033 492	837 778	195 714	X
316211	Rubber & plastics footwear mfg	1998..	8 198	240 441	192 220	48 221	4
		1997..	8 292	211 982	168 185	43 797	X
316212	House slipper mfg	1998..	2 246	57 735	46 786	10 949	2
		1997..	2 501	62 808	51 471	11 337	X
316213	Men's footwear (except athletic) mfg	1998..	15 073	396 562	318 261	78 301	5
		1997..	17 797	467 290	378 083	89 207	X
316214	Women's footwear (except athletic) mfg	1998..	9 370	210 716	179 913	30 803	2
		1997..	10 442	218 868	183 020	35 848	X
316219	Other footwear mfg	1998..	2 796	64 343	50 467	13 876	4
		1997..	3 327	72 544	57 019	15 525	X
3169	Other leather & allied product mfg	1998..	27 949	699 313	586 947	112 367	1
		1997..	28 752	715 003	601 651	113 352	X
31699	Other leather & allied product mfg	1998..	27 949	699 313	586 947	112 367	1
		1997..	28 752	715 003	601 651	113 352	X
316991	Luggage mfg	1998..	9 380	259 327	215 414	43 913	2
		1997..	9 655	267 330	221 927	45 403	X
316992	Women's handbag & purse mfg	1998..	3 775	93 960	83 624	10 336	2
		1997..	3 783	111 141	97 341	13 800	X
316993	Personal leather good (except women's handbag & purse) mfg	1998..	4 948	117 893	98 352	19 542	3
		1997..	4 950	108 569	92 068	16 501	X
316999	All other leather good mfg	1998..	9 846	228 133	189 557	38 575	1
		1997..	10 364	227 963	190 315	37 648	X
321	Wood product mfg	1998..	586 390	18 839 527	15 308 325	3 531 203	1
		1997..	573 616	17 804 313	14 406 091	3 398 222	X
3211	Sawmills & wood preservation	1998..	132 594	4 492 634	3 580 154	912 480	1
		1997..	131 016	4 379 397	3 480 579	898 818	X
32111	Sawmills & wood preservation	1998..	132 594	4 492 634	3 580 154	912 480	1
		1997..	131 016	4 379 397	3 480 579	898 818	X
321113	Sawmills	1998..	120 369	4 113 849	3 271 518	842 330	1
		1997..	119 348	4 014 253	3 182 456	831 797	X
321114	Wood preservation	1998..	12 225	378 786	308 636	70 150	3
		1997..	11 668	365 144	298 123	67 021	X
3212	Veneer, plywood, & engineered wood product mfg	1998..	114 968	4 205 556	3 365 653	839 903	1
		1997..	114 165	4 001 248	3 187 249	813 999	X
32121	Veneer, plywood, & engineered wood product mfg	1998..	114 968	4 205 556	3 365 653	839 903	1
		1997..	114 165	4 001 248	3 187 249	813 999	X
321211	Hardwood veneer & plywood mfg	1998..	21 972	691 239	558 867	132 372	2
		1997..	22 225	652 094	527 527	124 567	X
321212	Softwood veneer & plywood mfg	1998..	27 941	1 152 248	905 232	247 016	1
		1997..	28 678	1 162 596	907 126	255 470	X
321213	Engineered wood member (except truss) mfg ..	1998..	5 811	225 156	173 489	51 667	1
		1997..	5 372	197 980	154 564	43 416	X
321214	Truss mfg	1998..	34 525	1 098 409	918 374	180 034	3
		1997..	32 617	961 085	799 510	161 575	X
321219	Reconstituted wood product mfg	1998..	24 719	1 038 504	809 691	228 813	1
		1997..	25 273	1 027 493	798 522	228 971	X
3219	Other wood product mfg	1998..	338 827	10 141 337	8 362 517	1 778 820	1
		1997..	328 435	9 423 668	7 738 263	1 685 405	X
32191	Millwork	1998..	146 134	4 570 234	3 723 780	846 453	1
		1997..	142 426	4 296 069	3 483 157	812 912	X
321911	Wood window & door mfg	1998..	67 136	2 293 580	1 887 687	405 893	1
		1997..	64 650	2 125 948	1 729 869	396 079	X
321912	Cut stock, resawing lumber, & planing	1998..	39 975	1 158 635	925 022	233 613	4
		1997..	39 740	1 105 571	887 954	217 617	X
321918	Other millwork (including flooring)	1998..	39 022	1 118 019	911 071	206 947	1
		1997..	38 036	1 064 550	865 334	199 216	X
32192	Wood container & pallet mfg	1998..	52 835	1 221 151	1 037 888	183 264	1
		1997..	51 403	1 152 323	975 479	176 844	X
321920	Wood container & pallet mfg	1998..	52 835	1 221 151	1 037 888	183 264	1
		1997..	51 403	1 152 323	975 479	176 844	X
32199	All other wood product mfg	1998..	139 859	4 349 952	3 600 849	749 103	1
		1997..	134 606	3 975 276	3 279 627	695 649	X
321991	Manufactured home (mobile home) mfg	1998..	71 576	2 414 332	2 014 339	399 994	1
		1997..	67 847	2 143 622	1 781 359	362 263	X
321992	Prefabricated wood building mfg	1998..	23 423	744 761	614 151	130 610	3
		1997..	23 010	702 324	582 740	119 584	X
321999	All other miscellaneous wood product mfg	1998..	44 859	1 190 859	972 360	218 500	1
		1997..	43 749	1 129 330	915 528	213 802	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
			All employees	Total	Payroll	Total fringe benefits	
322	Paper mfg	1998 . .	576 114	28 473 104	22 656 607	5 816 497	1
		1997 . .	576 135	28 085 840	22 391 604	5 694 236	X
3221	Pulp, paper, & paperboard mills	1998 . .	193 421	12 307 350	9 700 868	2 606 483	1
		1997 . .	200 027	12 462 114	9 947 106	2 515 008	X
32211	Pulp mills	1998 . .	9 891	672 262	524 538	147 724	1
		1997 . .	10 247	666 265	524 213	142 052	X
322110	Pulp mills	1998 . .	9 891	672 262	524 538	147 724	1
		1997 . .	10 247	666 265	524 213	142 052	X
32212	Paper mills	1998 . .	129 888	8 250 804	6 470 243	1 780 561	2
		1997 . .	135 356	8 471 769	6 759 929	1 711 840	X
322121	Paper (except newsprint) mills	1998 . .	117 183	7 343 531	5 765 217	1 578 314	2
		1997 . .	122 306	7 569 671	6 041 365	1 528 306	X
322122	Newsprint mills	1998 . .	12 705	907 273	705 026	202 247	1
		1997 . .	13 050	902 098	718 564	183 534	X
32213	Paperboard mills	1998 . .	53 642	3 384 284	2 706 086	678 197	1
		1997 . .	54 424	3 324 080	2 662 964	661 116	X
322130	Paperboard mills	1998 . .	53 642	3 384 284	2 706 086	678 197	1
		1997 . .	54 424	3 324 080	2 662 964	661 116	X
3222	Converted paper product mfg	1998 . .	382 692	16 165 754	12 955 739	3 210 014	1
		1997 . .	376 108	15 623 726	12 444 498	3 179 228	X
32221	Paperboard container mfg	1998 . .	213 453	9 095 213	7 308 960	1 786 254	1
		1997 . .	208 541	8 771 509	6 980 549	1 790 960	X
322211	Corrugated & solid fiber box mfg	1998 . .	129 976	5 572 108	4 495 242	1 076 866	2
		1997 . .	124 916	5 326 019	4 270 844	1 055 175	X
322212	Folding paperboard box mfg	1998 . .	51 571	2 298 316	1 825 818	472 498	2
		1997 . .	51 046	2 255 397	1 765 836	489 561	X
322213	Setup paperboard box mfg	1998 . .	S	S	S	S	X
		1997 . .	6 194	175 868	146 095	29 773	X
322214	Fiber can, tube, drum, & similar products mfg	1998 . .	11 261	472 899	374 719	98 180	1
		1997 . .	11 461	450 287	354 514	95 773	X
322215	Nonfolding sanitary food container mfg	1998 . .	14 851	555 636	451 284	104 352	7
		1997 . .	14 924	563 938	443 260	120 678	X
32222	Paper bag & coated & treated paper mfg	1998 . .	76 779	3 477 831	2 758 838	718 993	1
		1997 . .	75 697	3 370 951	2 652 600	718 351	X
322221	Coated & laminated packaging paper & plastics film mfg	1998 . .	5 005	223 154	176 357	46 797	4
		1997 . .	5 416	233 924	184 801	49 123	X
322222	Coated & laminated paper mfg	1998 . .	42 994	2 075 472	1 656 756	418 716	1
		1997 . .	41 771	1 968 132	1 559 509	408 623	X
322223	Plastics, foil, & coated paper bag mfg	1998 . .	3 137	120 078	96 650	23 428	1
		1997 . .	3 005	120 457	94 736	25 721	X
322224	Uncoated paper & multiwall bag mfg	1998 . .	17 535	629 184	497 915	131 269	1
		1997 . .	17 244	606 175	475 935	130 240	X
322225	Laminated aluminum foil mfg for flexible packaging uses	1998 . .	4 828	275 859	207 621	68 238	2
		1997 . .	4 967	286 625	211 497	75 128	X
322226	Surface-coated paperboard mfg	1998 . .	3 280	154 085	123 539	30 546	1
		1997 . .	3 294	155 638	126 122	29 516	X
32223	Stationery product mfg	1998 . .	48 492	1 718 048	1 386 689	331 360	2
		1997 . .	47 825	1 701 539	1 379 650	321 889	X
322231	Die-cut paper & paperboard office supplies mfg	1998 . .	13 410	444 829	355 663	89 165	2
		1997 . .	12 792	432 833	345 586	87 247	X
322232	Envelope mfg	1998 . .	26 412	1 003 566	811 895	191 671	4
		1997 . .	25 867	977 281	794 390	182 891	X
322233	Stationery, tablet, & related product mfg	1998 . .	8 670	269 654	219 131	50 523	3
		1997 . .	9 166	291 425	239 674	51 751	X
32229	Other converted paper product mfg	1998 . .	43 969	1 874 661	1 501 253	373 408	1
		1997 . .	44 045	1 779 727	1 431 699	348 028	X
322291	Sanitary paper product mfg	1998 . .	20 806	1 030 127	814 334	215 793	1
		1997 . .	20 191	928 531	743 100	185 431	X
322299	All other converted paper product mfg	1998 . .	23 163	844 533	686 919	157 614	2
		1997 . .	23 854	851 196	688 599	162 597	X
323	Printing & related support activities	1998 . .	848 854	32 208 764	26 994 982	5 213 781	1
		1997 . .	838 625	31 236 630	26 102 047	5 134 583	X
3231	Printing & related support activities	1998 . .	848 854	32 208 764	26 994 982	5 213 781	1
		1997 . .	838 625	31 236 630	26 102 047	5 134 583	X
32311	Printing	1998 . .	765 750	28 842 315	24 127 152	4 715 163	1
		1997 . .	754 549	27 945 525	23 312 440	4 633 085	X
323110	Commercial lithographic printing	1998 . .	425 487	17 040 498	14 399 805	2 640 693	1
		1997 . .	415 080	16 295 479	13 711 203	2 584 276	X
323111	Commercial gravure printing	1998 . .	22 615	1 037 289	836 583	200 706	1
		1997 . .	23 260	998 404	804 827	193 577	X
323112	Commercial flexographic printing	1998 . .	30 443	1 269 233	1 056 794	212 439	1
		1997 . .	30 600	1 245 389	1 033 011	212 378	X
323113	Commercial screen printing	1998 . .	71 024	2 052 775	1 715 639	337 136	2
		1997 . .	72 614	2 072 400	1 732 350	340 050	X
323114	Quick printing	1998 . .	53 663	1 553 859	1 317 493	236 366	1
		1997 . .	52 507	1 489 496	1 260 997	228 499	X
323115	Digital printing	1998 . .	4 498	153 162	128 719	24 443	3
		1997 . .	4 201	146 103	122 919	23 184	X
323116	Manifold business form printing	1998 . .	55 574	2 078 267	1 665 490	412 777	4
		1997 . .	56 431	2 096 764	1 692 282	404 482	X
323117	Book printing	1998 . .	49 584	1 905 993	1 551 880	354 113	1
		1997 . .	49 044	1 873 421	1 530 472	342 949	X
323118	Blankbook, looseleaf binder, & device mfg	1998 . .	17 191	656 137	532 077	124 060	2
		1997 . .	17 798	638 101	509 339	128 762	X
323119	Other commercial printing	1998 . .	35 069	1 095 103	922 672	172 431	3
		1997 . .	33 014	1 089 968	915 040	174 928	X
32312	Support activities for printing	1998 . .	83 105	3 366 449	2 867 830	498 619	2
		1997 . .	84 076	3 291 105	2 789 607	501 498	X
323121	Tradebinding & related work	1998 . .	31 676	950 638	814 417	136 221	1
		1997 . .	31 436	898 114	764 672	133 442	X
323122	Prepress services	1998 . .	51 429	2 415 811	2 053 413	362 398	3
		1997 . .	52 640	2 392 991	2 024 935	368 056	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
			All employees	Total	Payroll	Total fringe benefits	
324	Petroleum & coal products mfg	1998..	107 632	7 232 549	5 686 197	1 546 352	1
		1997..	107 811	7 131 911	5 551 371	1 580 540	X
3241	Petroleum & coal products mfg	1998..	107 632	7 232 549	5 686 197	1 546 352	1
		1997..	107 811	7 131 911	5 551 371	1 580 540	X
32411	Petroleum refineries	1998..	64 806	5 083 300	3 963 664	1 119 637	1
		1997..	65 448	5 035 389	3 884 869	1 150 520	X
324110	Petroleum refineries	1998..	64 806	5 083 300	3 963 664	1 119 637	1
		1997..	65 448	5 035 389	3 884 869	1 150 520	X
32412	Asphalt paving, roofing, & saturated materials mfg	1998..	27 596	1 366 023	1 099 538	266 484	1
		1997..	27 437	1 324 714	1 063 946	260 768	X
324121	Asphalt paving mixture & block mfg	1998..	14 294	712 181	576 856	135 325	3
		1997..	14 082	700 357	564 619	135 738	X
324122	Asphalt shingle & coating materials mfg	1998..	13 302	653 842	522 682	131 159	1
		1997..	13 355	624 357	499 327	125 030	X
32419	Other petroleum & coal products mfg	1998..	15 231	783 226	622 995	160 231	2
		1997..	14 926	771 808	602 556	169 252	X
324191	Petroleum lubricating oil & grease mfg	1998..	11 677	591 132	477 110	114 022	2
		1997..	11 292	563 405	449 968	113 437	X
324199	All other petroleum & coal products mfg	1998..	3 554	192 094	145 885	46 208	3
		1997..	3 634	208 403	152 588	55 815	X
325	Chemical mfg	1998..	898 429	52 490 361	41 663 525	10 826 836	1
		1997..	886 271	50 501 755	39 984 709	10 517 046	X
3251	Basic chemical mfg	1998..	201 520	13 327 501	10 478 589	2 848 913	1
		1997..	200 978	13 109 843	10 306 972	2 802 871	X
32511	Petrochemical mfg	1998..	10 399	821 186	635 689	185 497	1
		1997..	10 192	813 832	620 132	193 700	X
325110	Petrochemical mfg	1998..	10 399	821 186	635 689	185 497	1
		1997..	10 192	813 832	620 132	193 700	X
32512	Industrial gas mfg	1998..	12 590	748 630	582 247	166 383	1
		1997..	12 635	745 988	579 835	166 153	X
325120	Industrial gas mfg	1998..	12 590	748 630	582 247	166 383	1
		1997..	12 635	745 988	579 835	166 153	X
32513	Dye & pigment mfg	1998..	17 012	993 543	782 260	211 283	2
		1997..	17 317	1 000 838	782 734	218 104	X
325131	Inorganic dye & pigment mfg	1998..	8 531	510 297	401 664	108 634	1
		1997..	8 636	505 728	394 913	110 815	X
325132	Synthetic organic dye & pigment mfg	1998..	8 481	483 245	380 596	102 649	3
		1997..	8 681	495 110	387 821	107 289	X
32518	Other basic inorganic chemical mfg	1998..	59 989	3 896 059	3 059 816	836 243	1
		1997..	60 174	3 785 077	2 976 437	808 640	X
325181	Alkalies & chlorine mfg	1998..	4 899	349 193	279 018	70 175	1
		1997..	4 859	339 677	272 779	66 898	X
325182	Carbon black mfg	1998..	1 732	119 927	93 012	26 915	1
		1997..	1 769	117 458	90 694	26 764	X
325188	All other basic inorganic chemical mfg	1998..	53 358	3 426 939	2 687 786	739 153	1
		1997..	53 546	3 327 942	2 612 964	714 978	X
32519	Other basic organic chemical mfg	1998..	101 529	6 868 083	5 418 577	1 449 507	1
		1997..	100 660	6 764 108	5 347 834	1 416 274	X
325191	Gum & wood chemical mfg	1998..	2 494	115 653	94 120	21 534	1
		1997..	2 267	104 928	84 353	20 575	X
325192	Cyclic crude & intermediate mfg	1998..	8 706	617 054	474 851	142 203	1
		1997..	8 641	605 172	467 132	138 040	X
325193	Ethyl alcohol mfg	1998..	1 566	79 165	61 003	18 162	6
		1997..	1 527	75 750	59 291	16 459	X
325199	All other basic organic chemical mfg	1998..	88 763	6 056 211	4 788 603	1 267 608	1
		1997..	88 225	5 978 258	4 737 058	1 241 200	X
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	1998..	114 802	7 190 691	5 530 805	1 659 886	1
		1997..	115 660	7 028 905	5 397 484	1 631 421	X
32521	Resin & synthetic rubber mfg	1998..	73 800	5 034 822	3 902 051	1 132 772	1
		1997..	73 773	4 902 846	3 788 443	1 114 403	X
325211	Plastics material & resin mfg	1998..	62 919	4 254 235	3 306 037	948 198	1
		1997..	61 632	4 068 330	3 160 542	907 788	X
325212	Synthetic rubber mfg	1998..	10 881	780 587	596 014	184 573	1
		1997..	12 141	834 516	627 901	206 615	X
32522	Artificial & synthetic fibers & filaments mfg	1998..	41 002	2 155 869	1 628 754	527 115	1
		1997..	41 887	2 126 059	1 609 041	517 018	X
325221	Cellulosic organic fiber mfg	1998..	4 055	198 848	147 082	51 766	1
		1997..	4 802	236 905	174 879	62 026	X
325222	Noncellulosic organic fiber mfg	1998..	36 947	1 957 021	1 481 672	475 349	1
		1997..	37 085	1 889 154	1 434 162	454 992	X
3253	Pesticide, fertilizer, & other agricultural chemical mfg	1998..	37 306	1 958 490	1 558 660	399 830	2
		1997..	37 206	1 906 496	1 518 839	387 657	X
32531	Fertilizer mfg	1998..	23 014	1 137 623	912 061	225 562	3
		1997..	23 212	1 094 729	883 219	211 510	X
325311	Nitrogenous fertilizer mfg	1998..	5 335	367 929	301 062	66 868	2
		1997..	5 811	346 127	286 132	59 995	X
325312	Phosphatic fertilizer mfg	1998..	8 294	463 662	359 560	104 102	7
		1997..	8 559	459 604	360 599	99 005	X
325314	Fertilizer (mixing only) mfg	1998..	9 384	306 032	251 439	54 593	1
		1997..	8 842	288 995	236 488	52 510	X
32532	Pesticide & other agricultural chemical mfg	1998..	14 293	820 867	646 599	174 268	1
		1997..	13 994	811 767	635 620	176 147	X
325320	Pesticide & other agricultural chemical mfg	1998..	14 293	820 867	646 599	174 268	1
		1997..	13 994	811 767	635 620	176 147	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
325	Chemical mfg—Con.					
3254	Pharmaceutical & medicine mfg	1998.. 213 882	13 878 058	11 246 557	2 631 501	1
		1997.. 205 448	12 738 874	10 222 069	2 516 805	X
32541	Pharmaceutical & medicine mfg	1998.. 213 882	13 878 058	11 246 557	2 631 501	1
		1997.. 205 448	12 738 874	10 222 069	2 516 805	X
325411	Medicinal & botanical mfg	1998.. 30 024	2 128 015	1 728 584	399 431	1
		1997.. 27 764	1 881 055	1 530 029	351 026	X
325412	Pharmaceutical preparation mfg	1998.. 118 286	7 537 487	6 103 613	1 433 875	1
		1997.. 115 286	6 980 840	5 591 463	1 389 377	X
325413	In-vitro diagnostic substance mfg	1998.. 41 129	2 847 440	2 307 464	539 977	2
		1997.. 39 099	2 595 603	2 080 123	515 480	X
325414	Biological product (except diagnostic) mfg	1998.. 24 442	1 365 116	1 106 897	258 218	1
		1997.. 23 299	1 281 376	1 020 454	260 922	X
3255	Paint, coating, & adhesive mfg	1998.. 76 782	3 728 966	2 963 812	765 153	1
		1997.. 75 100	3 673 360	2 922 234	751 126	X
32551	Paint & coating mfg	1998.. 54 539	2 631 429	2 101 317	530 112	2
		1997.. 53 152	2 609 849	2 083 746	526 103	X
325510	Paint & coating mfg	1998.. 54 539	2 631 429	2 101 317	530 112	2
		1997.. 53 152	2 609 849	2 083 746	526 103	X
32552	Adhesive mfg	1998.. 22 244	1 097 537	862 496	235 041	1
		1997.. 21 948	1 063 511	838 488	225 023	X
325520	Adhesive mfg	1998.. 22 244	1 097 537	862 496	235 041	1
		1997.. 21 948	1 063 511	838 488	225 023	X
3256	Soap, cleaning compound, & toilet preparation mfg	1998.. 131 999	6 027 027	4 780 342	1 246 685	1
		1997.. 126 948	5 757 416	4 585 760	1 171 656	X
32561	Soap & cleaning compound mfg	1998.. 64 500	3 165 740	2 520 104	645 636	2
		1997.. 62 614	3 086 003	2 458 650	627 353	X
325611	Soap & other detergent mfg	1998.. 30 952	1 611 265	1 272 256	339 010	4
		1997.. 31 158	1 607 560	1 271 545	336 015	X
325612	Polish & other sanitation good mfg	1998.. 24 063	951 341	767 704	183 637	2
		1997.. 21 985	896 799	724 411	172 388	X
325613	Surface active agent mfg	1998.. 9 485	603 134	480 144	122 989	1
		1997.. 9 471	581 644	462 694	118 950	X
32562	Toilet preparation mfg	1998.. 67 498	2 861 287	2 260 238	601 049	2
		1997.. 64 334	2 671 413	2 127 110	544 303	X
325620	Toilet preparation mfg	1998.. 67 498	2 861 287	2 260 238	601 049	2
		1997.. 64 334	2 671 413	2 127 110	544 303	X
3259	Other chemical product mfg	1998.. 122 138	6 379 628	5 104 760	1 274 868	1
		1997.. 124 931	6 286 861	5 031 351	1 255 510	X
32591	Printing ink mfg	1998.. 13 488	675 903	544 548	131 356	4
		1997.. 13 218	640 165	510 631	129 534	X
325910	Printing ink mfg	1998.. 13 488	675 903	544 548	131 356	4
		1997.. 13 218	640 165	510 631	129 534	X
32592	Explosives mfg	1998.. 8 410	383 547	296 903	86 643	1
		1997.. 8 972	407 441	312 301	95 140	X
325920	Explosives mfg	1998.. 8 410	383 547	296 903	86 643	1
		1997.. 8 972	407 441	312 301	95 140	X
32599	All other chemical product & preparation mfg	1998.. 100 240	5 320 178	4 263 309	1 056 869	1
		1997.. 102 741	5 239 255	4 208 419	1 030 836	X
325991	Custom compounding of purchased resin	1998.. 27 584	1 252 755	993 727	259 027	1
		1997.. 27 776	1 205 359	957 095	248 264	X
325992	Photographic film, paper, plate, & chemical mfg	1998.. 35 578	2 206 648	1 779 379	427 269	1
		1997.. 38 935	2 253 981	1 828 139	425 842	X
325998	All other miscellaneous chemical product & preparation mfg	1998.. 37 078	1 860 775	1 490 202	370 573	1
		1997.. 36 030	1 779 915	1 423 185	356 730	X
326	Plastics & rubber products mfg	1998.. 1 042 811	39 258 489	31 181 806	8 076 684	1
		1997.. 1 030 909	37 867 946	30 045 415	7 822 531	X
3261	Plastics product mfg	1998.. 836 010	29 965 320	24 193 942	5 771 378	1
		1997.. 827 169	28 904 186	23 232 717	5 671 469	X
32611	Unsupported plastics film, sheet, & bag mfg	1998.. 109 922	4 625 817	3 699 247	926 570	1
		1997.. 110 657	4 590 612	3 659 960	930 652	X
326111	Unsupported plastics bag mfg	1998.. 41 136	1 490 691	1 208 914	281 777	2
		1997.. 40 733	1 445 126	1 169 892	275 234	X
326112	Unsupported plastics packaging film & sheet mfg	1998.. 14 973	693 343	554 635	138 708	3
		1997.. 15 351	681 521	549 120	132 401	X
326113	Unsupported plastics film & sheet (except packaging) mfg	1998.. 53 813	2 441 783	1 935 698	506 085	1
		1997.. 54 573	2 463 965	1 940 948	523 017	X
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg	1998.. 48 218	1 868 125	1 508 069	360 056	2
		1997.. 47 762	1 772 336	1 422 415	349 921	X
326121	Unsupported plastics profile shape mfg	1998.. 28 415	1 119 543	895 991	223 552	3
		1997.. 27 752	1 082 996	869 811	213 185	X
326122	Plastics pipe & pipe fitting mfg	1998.. 19 803	748 583	612 078	136 505	3
		1997.. 20 010	689 340	552 604	136 736	X
32613	Laminated plastics plate, sheet, & shape mfg	1998.. 15 691	679 372	541 705	137 667	3
		1997.. 16 660	704 051	547 169	156 882	X
326130	Laminated plastics plate, sheet, & shape mfg	1998.. 15 691	679 372	541 705	137 667	3
		1997.. 16 660	704 051	547 169	156 882	X
32614	Polystyrene foam product mfg	1998.. 30 455	1 028 425	835 502	192 923	2
		1997.. 27 519	976 992	787 450	189 542	X
326140	Polystyrene foam product mfg	1998.. 30 455	1 028 425	835 502	192 923	2
		1997.. 27 519	976 992	787 450	189 542	X
32615	Urethane & other foam product (except polystyrene) mfg	1998.. 36 395	1 310 797	1 042 253	268 544	2
		1997.. 37 614	1 277 830	1 011 453	266 377	X
326150	Urethane & other foam product (except polystyrene) mfg	1998.. 36 395	1 310 797	1 042 253	268 544	2
		1997.. 37 614	1 277 830	1 011 453	266 377	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
326	Plastics & rubber products mfg—Con.					
3261	Plastics product mfg—Con.					
32616	Plastics bottle mfg.....	1998.. 35 681	1 292 062	1 026 782	265 280	1
		1997.. 34 667	1 239 578	979 205	260 373	X
326160	Plastics bottle mfg.....	1998.. 35 681	1 292 062	1 026 782	265 280	1
		1997.. 34 667	1 239 578	979 205	260 373	X
32619	Other plastics product mfg	1998.. 559 648	19 160 722	15 540 383	3 620 338	1
		1997.. 552 290	18 342 787	14 825 065	3 517 722	X
326191	Plastics plumbing fixture mfg	1998.. 19 352	611 432	498 664	112 768	5
		1997.. 19 359	562 256	455 236	107 020	X
326192	Resilient floor covering mfg	1998.. 6 484	341 545	277 255	64 289	1
		1997.. 6 070	336 880	270 689	66 191	X
326199	All other plastics product mfg	1998.. 533 812	18 207 745	14 764 464	3 443 281	1
		1997.. 526 861	17 443 651	14 099 140	3 344 511	X
3262	Rubber product mfg	1998.. 206 801	9 293 169	6 987 863	2 305 306	1
		1997.. 203 740	8 963 760	6 812 698	2 151 062	X
32621	Tire mfg	1998.. 73 710	4 195 102	3 032 559	1 162 543	1
		1997.. 72 304	4 000 480	2 965 563	1 034 917	X
326211	Tire mfg (except retreading)	1998.. 65 498	3 940 138	2 826 129	1 114 009	1
		1997.. 64 365	3 759 091	2 773 176	985 915	X
326212	Tire retreading	1998.. 8 212	254 964	206 430	48 534	3
		1997.. 7 939	241 389	192 387	49 002	X
32622	Rubber & plastics hoses & belting mfg	1998.. 24 789	1 050 545	792 586	257 960	3
		1997.. 24 182	1 011 301	749 220	262 081	X
326220	Rubber & plastics hoses & belting mfg	1998.. 24 789	1 050 545	792 586	257 960	3
		1997.. 24 182	1 011 301	749 220	262 081	X
32629	Other rubber product mfg	1998.. 108 302	4 047 522	3 162 718	884 803	1
		1997.. 107 254	3 951 979	3 097 915	854 064	X
326291	Rubber product mfg for mechanical use	1998.. 56 995	2 163 515	1 668 702	494 813	2
		1997.. 55 669	2 067 196	1 598 812	468 384	X
326299	All other rubber product mfg	1998.. 51 308	1 884 007	1 494 016	389 991	1
		1997.. 51 585	1 884 783	1 499 103	385 680	X
327	Nonmetallic mineral product mfg	1998.. 511 680	21 610 477	17 010 039	4 600 438	1
		1997.. 504 425	20 670 925	16 271 263	4 399 662	X
3271	Clay product & refractory mfg	1998.. 78 535	2 861 063	2 257 647	603 416	1
		1997.. 80 740	2 845 459	2 245 025	600 434	X
32711	Pottery, ceramics, & plumbing fixture mfg	1998.. 41 455	1 440 380	1 134 900	305 480	1
		1997.. 42 594	1 415 564	1 114 914	300 650	X
327111	Vitreous china plumbing fixture & bathroom accessories mfg	1998.. 9 604	399 683	306 131	93 552	1
		1997.. 9 222	370 041	284 871	85 170	X
327112	Vitreous china, fine earthenware, & other pottery product mfg	1998.. 22 134	643 212	510 126	133 086	1
		1997.. 23 290	639 406	504 789	134 617	X
327113	Porcelain electrical supply mfg	1998.. 9 717	397 485	318 643	78 842	4
		1997.. 10 082	406 117	325 254	80 863	X
32712	Clay building material & refractories mfg	1998.. 37 080	1 420 683	1 122 747	297 936	1
		1997.. 38 146	1 429 895	1 130 111	299 784	X
327121	Brick & structural clay tile mfg	1998.. 13 489	457 125	370 236	86 889	4
		1997.. 13 808	449 974	364 199	85 775	X
327122	Ceramic wall & floor tile mfg	1998.. 8 392	253 768	205 276	48 492	3
		1997.. 8 804	269 508	216 199	53 309	X
327123	Other structural clay product mfg	1998.. 1 490	50 117	38 270	11 847	1
		1997.. 1 332	45 938	35 163	10 775	X
327124	Clay refractory mfg	1998.. 5 617	259 054	201 829	57 225	1
		1997.. 5 781	254 207	199 274	54 933	X
327125	Nonclay refractory mfg	1998.. 8 092	400 619	307 136	93 483	1
		1997.. 8 421	410 268	315 276	94 992	X
3272	Glass & glass product mfg	1998.. 127 368	5 779 645	4 446 203	1 333 442	1
		1997.. 128 876	5 755 405	4 436 753	1 318 652	X
32721	Glass & glass product mfg	1998.. 127 368	5 779 645	4 446 203	1 333 442	1
		1997.. 128 876	5 755 405	4 436 753	1 318 652	X
327211	Flat glass mfg	1998.. 11 255	678 662	534 062	144 600	1
		1997.. 11 579	696 394	535 454	160 940	X
327212	Other pressed & blown glass & glassware mfg	1998.. 35 055	1 636 245	1 215 620	420 625	1
		1997.. 35 588	1 635 122	1 233 610	401 512	X
327213	Glass container mfg	1998.. 20 044	1 110 947	824 990	285 957	1
		1997.. 21 184	1 129 899	840 703	289 196	X
327215	Glass product mfg made of purchased glass....	1998.. 61 014	2 353 791	1 871 531	482 260	2
		1997.. 60 525	2 293 990	1 826 986	467 004	X
3273	Cement & concrete product mfg	1998.. 204 238	8 541 719	6 805 092	1 736 627	1
		1997.. 197 115	7 889 467	6 261 360	1 628 107	X
32731	Cement mfg	1998.. 17 260	999 276	766 544	232 732	1
		1997.. 16 973	954 626	735 506	219 120	X
327310	Cement mfg	1998.. 17 260	999 276	766 544	232 732	1
		1997.. 16 973	954 626	735 506	219 120	X
32732	Ready-mix concrete mfg	1998.. 95 837	4 030 131	3 225 542	804 589	1
		1997.. 94 300	3 767 776	3 006 613	761 163	X
327320	Ready-mix concrete mfg	1998.. 95 837	4 030 131	3 225 542	804 589	1
		1997.. 94 300	3 767 776	3 006 613	761 163	X
32733	Concrete pipe, brick, & block mfg	1998.. 34 116	1 401 722	1 115 519	286 203	2
		1997.. 32 617	1 267 730	1 003 954	263 776	X
327331	Concrete block & brick mfg	1998.. 19 385	805 112	635 467	169 644	3
		1997.. 18 250	717 969	563 552	154 417	X
327332	Concrete pipe mfg	1998.. 14 732	596 611	480 052	116 559	3
		1997.. 14 367	549 761	440 402	109 359	X
32739	Other concrete product mfg	1998.. 57 025	2 110 590	1 697 488	413 102	1
		1997.. 53 225	1 899 335	1 515 287	384 048	X
327390	Other concrete product mfg	1998.. 57 025	2 110 590	1 697 488	413 102	1
		1997.. 53 225	1 899 335	1 515 287	384 048	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
			All employees	Total	Payroll	Total fringe benefits	
327	Nonmetallic mineral product mfg—Con.						
3274	Lime & gypsum product mfg	1998..	20 350	948 805	764 382	184 422	3
		1997..	19 094	864 969	700 958	164 011	X
32741	Lime mfg	1998..	5 793	284 888	224 007	60 881	7
		1997..	5 358	248 889	196 630	52 259	X
327410	Lime mfg	1998..	5 793	284 888	224 007	60 881	7
		1997..	5 358	248 889	196 630	52 259	X
32742	Gypsum product mfg	1998..	14 557	663 917	540 375	123 541	2
		1997..	13 736	616 080	504 328	111 752	X
327420	Gypsum product mfg	1998..	14 557	663 917	540 375	123 541	2
		1997..	13 736	616 080	504 328	111 752	X
3279	Other nonmetallic mineral product mfg	1998..	81 189	3 479 245	2 736 714	742 531	2
		1997..	78 600	3 315 625	2 627 167	688 458	X
32791	Abrasive product mfg	1998..	21 356	958 312	746 828	211 485	2
		1997..	22 605	994 509	783 548	210 961	X
327910	Abrasive product mfg	1998..	21 356	958 312	746 828	211 485	2
		1997..	22 605	994 509	783 548	210 961	X
32799	All other nonmetallic mineral product mfg	1998..	59 833	2 520 933	1 989 887	531 046	2
		1997..	55 995	2 321 116	1 843 619	477 497	X
327991	Cut stone & stone product mfg	1998..	14 388	468 220	370 665	97 556	4
		1997..	13 165	441 031	352 039	88 992	X
327992	Ground or treated mineral & earth mfg	1998..	10 459	497 732	389 897	107 835	8
		1997..	10 144	464 911	362 670	102 241	X
327993	Mineral wool mfg	1998..	22 733	1 107 668	873 659	234 009	2
		1997..	21 610	1 021 107	811 380	209 727	X
327999	All other miscellaneous nonmetallic mineral product mfg	1998..	12 253	447 313	355 666	91 646	2
		1997..	11 076	394 067	317 530	76 537	X
331	Primary metal mfg	1998..	606 978	32 217 717	24 286 776	7 930 941	1
		1997..	609 136	31 980 968	23 969 717	8 011 251	X
3311	Iron & steel mills & ferroalloy mfg	1998..	149 728	10 725 437	7 697 674	3 027 763	1
		1997..	150 113	10 789 794	7 616 191	3 173 603	X
33111	Iron & steel mills & ferroalloy mfg	1998..	149 728	10 725 437	7 697 674	3 027 763	1
		1997..	150 113	10 789 794	7 616 191	3 173 603	X
331111	Iron & steel mills	1998..	145 995	10 510 216	7 535 856	2 974 360	1
		1997..	146 389	10 583 500	7 459 245	3 124 255	X
331112	Electrometallurgical ferroalloy product mfg	1998..	3 733	215 221	161 818	53 403	1
		1997..	3 724	206 294	156 946	49 348	X
3312	Steel product mfg from purchased steel	1998..	64 766	3 118 322	2 407 532	710 789	1
		1997..	65 181	3 066 543	2 361 163	705 380	X
33121	Iron & steel pipes & tubes mfg from purchased steel	1998..	27 852	1 293 924	1 013 297	280 626	1
		1997..	27 209	1 258 372	990 493	267 879	X
331210	Iron & steel pipes & tubes mfg from purchased steel	1998..	27 852	1 293 924	1 013 297	280 626	1
		1997..	27 209	1 258 372	990 493	267 879	X
33122	Rolling & drawing of purchased steel	1998..	36 915	1 824 398	1 394 235	430 163	2
		1997..	37 972	1 808 171	1 370 670	437 501	X
331221	Cold-rolled steel shape mfg	1998..	14 348	887 721	653 472	234 249	2
		1997..	14 197	865 765	633 162	232 603	X
331222	Steel wire drawing	1998..	22 567	936 678	740 763	195 914	5
		1997..	23 775	942 406	737 508	204 898	X
3313	Alumina & aluminum production & processing	1998..	85 879	4 514 057	3 354 555	1 159 503	1
		1997..	85 299	4 468 239	3 375 953	1 092 286	X
33131	Alumina & aluminum production & processing	1998..	85 879	4 514 057	3 354 555	1 159 503	1
		1997..	85 299	4 468 239	3 375 953	1 092 286	X
331311	Alumina refining	1998..	3 148	210 978	146 599	64 379	1
		1997..	3 035	205 266	150 696	54 570	X
331312	Primary aluminum production	1998..	16 317	1 016 513	730 453	286 060	1
		1997..	15 763	959 564	707 402	252 162	X
331314	Secondary smelting & alloying of aluminum	1998..	7 248	320 995	249 117	71 879	1
		1997..	6 714	294 209	229 293	64 916	X
331315	Aluminum sheet, plate, & foil mfg	1998..	23 203	1 477 065	1 079 242	397 823	1
		1997..	25 111	1 600 838	1 199 382	401 456	X
331316	Aluminum extruded product mfg	1998..	31 690	1 299 791	1 001 575	298 217	1
		1997..	30 357	1 221 182	944 829	276 353	X
331319	Other aluminum rolling & drawing	1998..	4 271	188 715	147 569	41 146	2
		1997..	4 319	187 180	144 351	42 829	X
3314	Nonferrous metal (except aluminum) production & processing	1998..	80 850	3 948 083	3 076 602	871 481	1
		1997..	81 717	3 954 908	3 068 568	886 340	X
33141	Nonferrous metal (except aluminum) smelting & refining	1998..	16 115	813 980	629 369	184 612	1
		1997..	16 624	846 927	653 383	193 544	X
331411	Primary smelting & refining of copper	1998..	6 539	326 163	249 314	76 849	1
		1997..	7 360	372 254	287 382	84 872	X
331419	Other nonferrous metal primary smelting & refining	1998..	9 576	487 817	380 054	107 763	2
		1997..	9 264	474 673	366 001	108 672	X
33142	Copper rolling, drawing, extruding, & alloying	1998..	27 990	1 317 294	1 025 614	291 680	1
		1997..	27 708	1 286 562	1 001 529	285 033	X
331421	Copper rolling, drawing, & extruding	1998..	21 252	1 036 598	804 087	232 512	1
		1997..	21 137	1 013 092	786 184	226 908	X
331422	Copper wire (except mechanical) drawing	1998..	4 452	166 512	132 277	34 235	4
		1997..	4 238	157 353	124 240	33 113	X
331423	Secondary smelting, refining, & alloying of copper	1998..	2 285	114 184	89 251	24 933	4
		1997..	2 333	116 117	91 105	25 012	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
331	Primary metal mfg—Con.					
3314	Nonferrous metal (except aluminum) production & processing—Con.					
33149	Other nonferrous metal rolling, drawing, extruding, & alloying	1998.. 36 746	1 816 808	1 421 618	395 189	1
		1997.. 37 385	1 821 419	1 413 656	407 763	X
331491	Other nonferrous metal rolling, drawing, & extruding	1998.. 25 752	1 287 181	1 005 563	281 618	1
		1997.. 25 834	1 281 225	989 865	291 360	X
331492	Other nonferrous metal secondary smelting, refining, & alloying	1998.. 10 994	529 626	416 055	113 571	1
		1997.. 11 551	540 194	423 791	116 403	X
3315	Foundries	1998.. 225 755	9 911 818	7 750 413	2 161 405	1
		1997.. 226 826	9 701 484	7 547 842	2 153 642	X
33151	Ferrous metal foundries	1998.. 128 543	6 086 379	4 732 839	1 353 540	2
		1997.. 132 853	6 051 044	4 666 674	1 384 370	X
331511	Iron foundries	1998.. 81 659	4 160 790	3 217 093	943 697	3
		1997.. 86 198	4 220 054	3 234 387	985 667	X
331512	Steel investment foundries	1998.. 22 282	905 389	707 848	197 541	2
		1997.. 22 673	867 613	669 452	198 161	X
331513	Steel foundries (except investment)	1998.. 24 602	1 020 200	807 898	212 302	1
		1997.. 23 982	963 377	762 835	200 542	X
33152	Nonferrous metal foundries	1998.. 97 212	3 825 439	3 017 574	807 865	1
		1997.. 93 973	3 650 440	2 881 168	769 272	X
331521	Aluminum die-casting foundries	1998.. 28 055	1 190 444	931 683	258 761	3
		1997.. 27 576	1 145 081	902 653	242 428	X
331522	Nonferrous (except aluminum) die-casting foundries	1998.. 17 498	632 844	510 398	122 446	3
		1997.. 16 861	602 716	489 546	113 170	X
331524	Aluminum foundries (except die-casting)	1998.. 35 368	1 341 587	1 061 338	280 249	1
		1997.. 34 098	1 283 329	1 013 843	269 486	X
331525	Copper foundries (except die-casting)	1998.. 9 394	354 531	273 952	80 580	1
		1997.. 8 909	340 801	260 340	80 461	X
331528	Other nonferrous foundries (except die-casting)	1998.. 6 897	306 032	240 203	65 829	1
		1997.. 6 529	278 513	214 786	63 727	X
332	Fabricated metal product mfg	1998.. 1 817 699	73 567 522	59 473 125	14 094 398	1
		1997.. 1 772 149	70 410 569	56 887 563	13 523 006	X
3321	Forging & stamping	1998.. 164 421	7 154 223	5 744 930	1 409 293	1
		1997.. 159 212	6 815 706	5 470 354	1 345 352	X
33211	Forging & stamping	1998.. 164 421	7 154 223	5 744 930	1 409 293	1
		1997.. 159 212	6 815 706	5 470 354	1 345 352	X
332111	Iron & steel forging	1998.. 28 770	1 461 507	1 148 448	313 059	1
		1997.. 26 477	1 333 143	1 034 307	298 836	X
332112	Nonferrous forging	1998.. 9 402	471 254	357 789	113 465	1
		1997.. 9 129	471 494	366 879	104 615	X
332114	Custom roll forming	1998.. 15 181	641 094	514 478	126 616	6
		1997.. 15 440	625 837	507 792	118 045	X
332115	Crown & closure mfg	1998.. 4 396	210 533	161 982	48 551	1
		1997.. 4 628	213 551	163 702	49 849	X
332116	Metal stamping	1998.. 95 492	3 886 548	3 170 470	716 078	1
		1997.. 92 680	3 717 254	3 026 763	690 491	X
332117	Powder metallurgy part mfg	1998.. 11 179	483 287	391 763	91 523	1
		1997.. 10 858	454 427	370 911	83 516	X
3322	Cutlery & handtool mfg	1998.. 78 067	3 305 856	2 604 104	701 752	2
		1997.. 78 452	3 225 085	2 528 465	696 620	X
33221	Cutlery & handtool mfg	1998.. 78 067	3 305 856	2 604 104	701 752	2
		1997.. 78 452	3 225 085	2 528 465	696 620	X
332211	Cutlery & flatware (except precious) mfg	1998.. 10 323	457 431	340 114	117 318	1
		1997.. 11 191	483 373	364 107	119 266	X
332212	Hand & edge tool mfg	1998.. 51 456	2 174 497	1 732 841	441 657	2
		1997.. 50 388	2 064 621	1 634 557	430 064	X
332213	Saw blade & handsaw mfg	1998.. 9 190	392 651	312 923	79 729	19
		1997.. 9 149	384 097	300 538	83 559	X
332214	Kitchen utensil, pot, & pan mfg	1998.. 7 099	281 276	218 227	63 048	5
		1997.. 7 724	292 994	229 263	63 731	X
3323	Architectural & structural metals mfg	1998.. 397 878	15 071 249	12 300 623	2 770 625	1
		1997.. 383 557	14 142 210	11 508 493	2 633 717	X
33231	Plate work & fabricated structural product mfg	1998.. 147 813	5 892 284	4 791 384	1 100 899	1
		1997.. 145 265	5 603 724	4 548 386	1 055 338	X
332311	Prefabricated metal building & component mfg	1998.. 25 456	984 757	814 135	170 622	5
		1997.. 26 532	942 441	780 911	161 530	X
332312	Fabricated structural metal mfg	1998.. 96 462	3 895 101	3 154 465	740 636	1
		1997.. 93 129	3 668 541	2 965 327	703 214	X
332313	Plate work mfg	1998.. 25 896	1 012 426	822 785	189 641	2
		1997.. 25 604	992 742	802 148	190 594	X
33232	Ornamental & architectural metal products mfg	1998.. 250 065	9 178 965	7 509 239	1 669 726	1
		1997.. 238 292	8 538 486	6 960 107	1 578 379	X
332321	Metal window & door mfg	1998.. 77 990	2 584 793	2 112 133	472 661	1
		1997.. 74 203	2 374 094	1 934 060	440 034	X
332322	Sheet metal work mfg	1998.. 135 791	5 269 517	4 321 964	947 553	1
		1997.. 129 246	4 944 909	4 038 298	906 611	X
332323	Ornamental & architectural metal work mfg	1998.. 36 284	1 324 654	1 075 142	249 512	2
		1997.. 34 843	1 219 483	987 749	231 734	X
3324	Boiler, tank, & shipping container mfg	1998.. 102 838	4 788 689	3 805 937	982 752	1
		1997.. 103 527	4 674 559	3 711 942	962 617	X
33241	Power boiler & heat exchanger mfg	1998.. 28 851	1 246 231	1 007 419	238 812	5
		1997.. 27 781	1 192 844	955 029	237 815	X
332410	Power boiler & heat exchanger mfg	1998.. 28 851	1 246 231	1 007 419	238 812	5
		1997.. 27 781	1 192 844	955 029	237 815	X
33242	Metal tank (heavy gauge) mfg	1998.. 32 595	1 423 669	1 150 321	273 348	2
		1997.. 33 556	1 403 164	1 132 370	270 794	X
332420	Metal tank (heavy gauge) mfg	1998.. 32 595	1 423 669	1 150 321	273 348	2
		1997.. 33 556	1 403 164	1 132 370	270 794	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
332	Fabricated metal product mfg—Con.					
3324	Boiler, tank, & shipping container mfg—Con.					
33243	Metal can, box, & other metal container (light gauge) mfg	1998.. 41 393	2 118 789	1 648 197	470 592	1
		1997.. 42 190	2 078 551	1 624 543	454 008	X
332431	Metal can mfg	1998.. 25 271	1 492 151	1 139 276	352 875	1
		1997.. 27 316	1 527 915	1 185 705	342 210	X
332439	Other metal container mfg	1998.. 16 121	626 638	508 920	117 718	3
		1997.. 14 874	550 636	438 838	111 798	X
3325	Hardware mfg	1998.. 72 663	2 866 516	2 256 842	609 673	1
		1997.. 74 914	2 950 741	2 308 500	642 241	X
33251	Hardware mfg	1998.. 72 663	2 866 516	2 256 842	609 673	1
		1997.. 74 914	2 950 741	2 308 500	642 241	X
332510	Hardware mfg	1998.. 72 663	2 866 516	2 256 842	609 673	1
		1997.. 74 914	2 950 741	2 308 500	642 241	X
3326	Spring & wire product mfg	1998.. 70 307	2 495 993	2 024 031	471 962	2
		1997.. 70 736	2 374 304	1 921 620	452 684	X
33261	Spring & wire product mfg	1998.. 70 307	2 495 993	2 024 031	471 962	2
		1997.. 70 736	2 374 304	1 921 620	452 684	X
332611	Spring (heavy gauge) mfg	1998.. 5 828	254 558	202 570	51 988	1
		1997.. 5 581	229 732	183 180	46 552	X
332612	Spring (light gauge) mfg	1998.. 19 201	737 606	591 198	146 409	3
		1997.. 18 798	698 818	564 372	134 446	X
332618	Other fabricated wire product mfg	1998.. 45 278	1 503 828	1 230 263	273 566	3
		1997.. 46 357	1 445 754	1 174 068	271 686	X
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1998.. 442 139	17 572 465	14 626 261	2 946 204	1
		1997.. 423 692	16 923 903	14 048 327	2 875 576	X
33271	Machine shops	1998.. 304 258	11 733 062	9 878 957	1 854 105	1
		1997.. 290 278	11 276 605	9 474 361	1 802 244	X
332710	Machine shops	1998.. 304 258	11 733 062	9 878 957	1 854 105	1
		1997.. 290 278	11 276 605	9 474 361	1 802 244	X
33272	Turned product & screw, nut, & bolt mfg	1998.. 137 881	5 839 402	4 747 304	1 092 098	1
		1997.. 133 414	5 647 298	4 573 966	1 073 332	X
332721	Precision turned product mfg	1998.. 80 837	3 283 607	2 699 614	583 993	2
		1997.. 80 419	3 212 988	2 634 589	578 399	X
332722	Bolt, nut, screw, rivet, & washer mfg	1998.. 57 044	2 555 795	2 047 690	508 105	1
		1997.. 52 995	2 434 310	1 939 377	494 933	X
3328	Coating, engraving, heat treating, & allied activities	1998.. 159 703	5 915 659	4 819 244	1 096 416	2
		1997.. 153 275	5 520 557	4 525 102	995 455	X
33281	Coating, engraving, heat treating, & allied activities	1998.. 159 703	5 915 659	4 819 244	1 096 416	2
		1997.. 153 275	5 520 557	4 525 102	995 455	X
332811	Metal heat treating	1998.. 23 345	1 061 988	860 992	200 996	2
		1997.. 22 506	986 188	797 170	189 018	X
332812	Metal coating/engraving (exc jewelry/silverware)/allied services	1998.. 60 994	2 220 077	1 774 848	445 229	6
		1997.. 56 030	2 007 590	1 634 808	372 782	X
332813	Electroplating, plating, polishing, anodizing, & coloring	1998.. 75 363	2 633 595	2 183 404	450 191	2
		1997.. 74 739	2 526 779	2 093 124	433 655	X
3329	Other fabricated metal product mfg	1998.. 329 684	14 396 873	11 291 152	3 105 721	1
		1997.. 324 784	13 783 504	10 864 760	2 918 744	X
33291	Metal valve mfg	1998.. 126 864	5 773 434	4 467 538	1 305 896	1
		1997.. 126 383	5 587 149	4 367 193	1 219 956	X
332911	Industrial valve mfg	1998.. 54 956	2 572 346	2 003 367	568 980	2
		1997.. 54 472	2 472 030	1 949 741	522 289	X
332912	Fluid power valve & hose fitting mfg	1998.. 38 878	1 844 140	1 400 739	443 400	1
		1997.. 37 132	1 738 627	1 324 392	414 235	X
332913	Plumbing fixture fitting & trim mfg	1998.. 15 498	646 085	500 881	145 204	4
		1997.. 16 161	639 046	500 156	138 890	X
332919	Other metal valve & pipe fitting mfg	1998.. 17 532	710 862	562 551	148 312	4
		1997.. 18 618	737 446	592 904	144 542	X
33299	All other fabricated metal product mfg	1998.. 202 820	8 623 440	6 823 614	1 799 825	1
		1997.. 198 401	8 196 355	6 497 567	1 698 788	X
332991	Ball & roller bearing mfg	1998.. 36 884	1 841 577	1 401 306	440 271	1
		1997.. 36 447	1 781 174	1 366 923	414 251	X
332992	Small arms ammunition mfg	1998.. 7 005	325 103	250 332	74 770	1
		1997.. 6 987	316 088	247 283	68 805	X
332993	Ammunition (except small arms) mfg	1998.. 9 625	505 459	389 567	115 893	1
		1997.. 9 427	486 262	379 450	106 812	X
332994	Small arms mfg	1998.. 9 640	413 110	321 406	91 705	1
		1997.. 9 865	415 454	320 044	95 410	X
332995	Other ordnance & accessories mfg	1998.. 8 467	446 906	364 232	82 674	1
		1997.. 8 618	458 860	363 890	94 970	X
332996	Fabricated pipe & pipe fitting mfg	1998.. 31 167	1 171 705	959 477	212 229	2
		1997.. 30 270	1 096 860	895 345	201 515	X
332997	Industrial pattern mfg	1998.. 7 887	351 083	294 654	56 428	4
		1997.. 7 959	342 298	285 038	57 260	X
332998	Enameled iron & metal sanitary ware mfg	1998.. 10 149	425 057	325 928	99 129	1
		1997.. 9 994	361 782	280 462	81 320	X
332999	All other miscellaneous fabricated metal product mfg	1998.. 81 996	3 143 438	2 516 713	626 726	2
		1997.. 78 834	2 937 577	2 359 132	578 445	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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NAICS code	Industry group and industry		Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
			All employees	Total	Payroll	Total fringe benefits	
333	Machinery mfg	1998..	1 438 709	67 930 612	54 255 276	13 675 336	1
		1997..	1 425 067	66 610 073	53 200 635	13 409 438	X
3331	Agriculture, construction, & mining machinery mfg ..	1998..	211 930	10 263 707	7 873 342	2 390 366	1
		1997..	212 405	10 113 673	7 735 543	2 378 130	X
33311	Agricultural implement mfg	1998..	93 680	4 168 166	3 128 658	1 039 509	1
		1997..	94 987	4 138 337	3 110 326	1 028 011	X
333111	Farm machinery & equipment mfg	1998..	66 425	3 187 147	2 388 528	798 618	1
		1997..	66 370	3 173 064	2 370 599	802 465	X
333112	Lawn & garden tractor & home lawn & garden equipment mfg	1998..	27 255	981 020	740 129	240 891	1
		1997..	28 617	965 273	739 727	225 546	X
33312	Construction machinery mfg	1998..	73 290	3 929 670	3 010 653	919 017	1
		1997..	74 965	3 942 352	2 998 967	943 385	X
333120	Construction machinery mfg	1998..	73 290	3 929 670	3 010 653	919 017	1
		1997..	74 965	3 942 352	2 998 967	943 385	X
33313	Mining & oil & gas field machinery mfg	1998..	44 960	2 165 871	1 734 031	431 840	1
		1997..	42 453	2 032 984	1 626 250	406 734	X
333131	Mining machinery & equipment mfg	1998..	14 726	665 452	527 124	138 328	3
		1997..	13 547	615 786	486 496	129 290	X
333132	Oil & gas field machinery & equipment mfg	1998..	30 234	1 500 419	1 206 907	293 512	1
		1997..	28 906	1 417 198	1 139 754	277 444	X
3332	Industrial machinery mfg	1998..	198 571	9 509 244	7 727 729	1 781 515	1
		1997..	194 112	9 385 944	7 600 430	1 785 514	X
33321	Sawmill & woodworking machinery mfg	1998..	9 313	404 689	320 836	83 853	7
		1997..	9 128	374 677	302 587	72 090	X
333210	Sawmill & woodworking machinery mfg	1998..	9 313	404 689	320 836	83 853	7
		1997..	9 128	374 677	302 587	72 090	X
33322	Plastics & rubber industry machinery mfg	1998..	18 877	902 080	724 493	177 587	2
		1997..	18 624	937 243	746 777	190 466	X
333220	Plastics & rubber industry machinery mfg	1998..	18 877	902 080	724 493	177 587	2
		1997..	18 624	937 243	746 777	190 466	X
33329	Other industrial machinery mfg	1998..	170 381	8 202 475	6 682 400	1 520 075	1
		1997..	166 360	8 074 024	6 551 066	1 522 958	X
333291	Paper industry machinery mfg	1998..	18 703	965 289	778 404	186 885	2
		1997..	18 594	964 812	772 659	192 153	X
333292	Textile machinery mfg	1998..	12 870	529 576	444 033	85 542	5
		1997..	13 550	533 877	446 138	87 739	X
333293	Printing machinery & equipment mfg	1998..	21 173	1 069 666	870 328	199 338	2
		1997..	21 000	1 041 221	852 640	188 581	X
333294	Food product machinery mfg	1998..	19 172	898 980	731 999	166 981	3
		1997..	19 026	878 126	715 068	163 058	X
333295	Semiconductor machinery mfg	1998..	43 978	2 199 090	1 776 467	422 623	2
		1997..	40 087	2 127 209	1 701 669	425 540	X
333298	All other industrial machinery mfg	1998..	54 484	2 539 875	2 081 169	458 706	3
		1997..	54 103	2 528 779	2 062 892	465 887	X
3333	Commercial & service industry machinery mfg	1998..	131 024	5 923 585	4 763 771	1 159 814	1
		1997..	130 051	5 857 395	4 722 072	1 135 323	X
33331	Commercial & service industry machinery mfg	1998..	131 024	5 923 585	4 763 771	1 159 814	1
		1997..	130 051	5 857 395	4 722 072	1 135 323	X
333311	Automatic vending machine mfg	1998..	9 027	289 989	230 654	59 335	2
		1997..	8 178	269 830	215 627	54 203	X
333312	Commercial laundry, drycleaning, & pressing machine mfg	1998..	4 434	164 671	134 405	30 266	1
		1997..	4 523	168 346	136 783	31 563	X
333313	Office machinery mfg	1998..	13 679	526 033	442 041	83 993	3
		1997..	14 831	536 787	458 204	78 583	X
333314	Optical instrument & lens mfg	1998..	21 092	1 060 358	874 068	186 290	2
		1997..	20 902	1 023 104	837 136	185 968	X
333315	Photographic & photocopying equipment mfg ..	1998..	24 115	1 334 982	1 054 002	280 980	1
		1997..	24 707	1 377 913	1 099 950	277 963	X
333319	Other commercial & service industry machinery mfg	1998..	58 678	2 547 551	2 028 602	518 950	1
		1997..	56 910	2 481 415	1 974 372	507 043	X
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	1998..	174 582	6 946 335	5 515 195	1 431 140	1
		1997..	174 416	6 721 829	5 353 600	1 368 229	X
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	1998..	174 582	6 946 335	5 515 195	1 431 140	1
		1997..	174 416	6 721 829	5 353 600	1 368 229	X
333411	Air purification equipment mfg	1998..	16 245	563 489	463 658	99 831	2
		1997..	16 412	580 503	478 087	102 416	X
333412	Industrial & commercial fan & blower mfg	1998..	14 551	586 632	476 623	110 010	7
		1997..	13 723	528 824	432 195	96 629	X
333414	Heating equipment (except warm air furnaces) mfg	1998..	23 838	914 844	731 032	183 812	3
		1997..	24 597	936 247	755 114	181 133	X
333415	AC & warm air heating & commercial/industrial refrig equip mfg	1998..	119 948	4 881 370	3 843 883	1 037 487	1
		1997..	119 684	4 676 255	3 688 204	988 051	X
3335	Metalworking machinery mfg	1998..	247 807	12 146 254	10 013 223	2 133 031	1
		1997..	243 399	11 931 596	9 851 973	2 079 623	X
33351	Metalworking machinery mfg	1998..	247 807	12 146 254	10 013 223	2 133 031	1
		1997..	243 399	11 931 596	9 851 973	2 079 623	X
333511	Industrial mold mfg	1998..	49 186	2 484 428	2 074 642	409 785	1
		1997..	48 657	2 493 694	2 088 950	404 744	X
333512	Machine tool (metal cutting types) mfg	1998..	27 541	1 477 484	1 197 427	280 057	1
		1997..	29 347	1 564 097	1 266 908	297 189	X
333513	Machine tool (metal forming types) mfg	1998..	15 110	790 862	638 908	151 954	2
		1997..	14 185	739 628	598 606	141 022	X
333514	Special die & tool, die set, jig, & fixture mfg	1998..	82 715	3 938 895	3 293 355	645 540	1
		1997..	80 113	3 861 954	3 229 765	632 189	X
333515	Cutting tool & machine tool accessory mfg	1998..	49 923	2 128 068	1 715 486	412 582	1
		1997..	47 925	2 030 877	1 643 142	387 735	X
333516	Rolling mill machinery & equipment mfg	1998..	4 330	221 323	180 661	40 661	5
		1997..	4 149	206 589	167 312	39 277	X

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		All employees	Total	Payroll	Total fringe benefits	
333	Machinery mfg—Con.					
3335	Metalworking machinery mfg—Con.					
33351	Metalworking machinery mfg—Con.					
333518	Other metalworking machinery mfg	1998.. 19 004	1 105 196	912 744	192 452	3
		1997.. 19 023	1 034 757	857 290	177 467	X
3336	Engine, turbine, & power transmission equipment mfg	1998.. 111 723	6 058 996	4 683 754	1 375 243	1
		1997.. 113 739	6 005 786	4 642 811	1 362 975	X
33361	Engine, turbine, & power transmission equipment mfg	1998.. 111 723	6 058 996	4 683 754	1 375 243	1
		1997.. 113 739	6 005 786	4 642 811	1 362 975	X
333611	Turbine & turbine generator set unit mfg	1998.. 18 192	1 068 327	843 601	224 726	1
		1997.. 19 529	1 155 521	910 316	245 205	X
333612	Speed changer, industrial high-speed drive, & gear mfg	1998.. 15 860	770 957	611 306	159 651	1
		1997.. 16 258	757 018	598 017	159 001	X
333613	Mechanical power transmission equipment mfg	1998.. 21 744	1 007 654	789 728	217 926	1
		1997.. 21 604	981 464	770 962	210 502	X
333618	Other engine equipment mfg	1998.. 55 292	3 212 059	2 439 118	772 940	1
		1997.. 56 348	3 111 783	2 363 516	748 267	X
3339	Other general-purpose machinery mfg	1998.. 363 072	17 082 490	13 678 262	3 404 228	1
		1997.. 356 945	16 593 850	13 294 206	3 299 644	X
33391	Pump & compressor mfg	1998.. 70 708	3 462 570	2 727 578	734 993	2
		1997.. 68 197	3 309 700	2 614 706	694 994	X
333911	Pump & pumping equipment mfg	1998.. 38 324	1 926 434	1 529 304	397 130	3
		1997.. 36 552	1 785 410	1 422 919	362 491	X
333912	Air & gas compressor mfg	1998.. 25 949	1 214 287	946 691	267 596	2
		1997.. 24 821	1 202 247	940 349	261 898	X
333913	Measuring & dispensing pump mfg	1998.. 6 435	321 849	251 582	70 266	2
		1997.. 6 824	322 043	251 438	70 605	X
33392	Material handling equipment mfg	1998.. 94 659	4 290 736	3 455 351	835 385	1
		1997.. 92 907	4 157 703	3 338 808	818 895	X
333921	Elevator & moving stairway mfg	1998.. 9 489	414 813	333 280	81 533	4
		1997.. 9 442	428 381	340 525	87 856	X
333922	Conveyor & conveying equipment mfg	1998.. 39 260	1 916 740	1 554 882	361 857	3
		1997.. 39 498	1 898 030	1 534 627	363 403	X
333923	Overhead traveling crane, hoist, & monorail system mfg	1998.. 19 045	785 650	619 978	165 671	1
		1997.. 18 014	721 580	569 888	151 692	X
333924	Industrial truck, tractor, trailer, & stacker machinery mfg	1998.. 26 865	1 173 534	947 210	226 324	1
		1997.. 25 953	1 109 712	893 768	215 944	X
33399	All other general-purpose machinery mfg	1998.. 197 705	9 329 183	7 495 333	1 833 850	1
		1997.. 195 841	9 126 447	7 340 692	1 785 755	X
333991	Power-driven handtool mfg	1998.. 16 793	709 454	553 440	156 015	1
		1997.. 16 816	676 296	531 378	144 918	X
333992	Welding & soldering equipment mfg	1998.. 22 099	1 095 535	896 441	199 094	1
		1997.. 22 505	1 114 116	918 180	195 936	X
333993	Packaging machinery mfg	1998.. 32 470	1 626 440	1 318 063	308 378	2
		1997.. 32 338	1 589 834	1 288 518	301 316	X
333994	Industrial process furnace & oven mfg	1998.. 17 939	830 003	670 209	159 794	2
		1997.. 17 585	814 784	657 191	157 593	X
333995	Fluid power cylinder & actuator mfg	1998.. 24 471	1 239 333	959 205	280 128	1
		1997.. 23 265	1 181 367	906 388	274 979	X
333996	Fluid power pump & motor mfg	1998.. 16 934	847 028	669 263	177 766	1
		1997.. 15 963	793 647	625 065	168 582	X
333997	Scale & balance (except laboratory) mfg	1998.. 4 674	192 517	151 460	41 056	6
		1997.. 4 871	191 180	148 755	42 425	X
333999	All other miscellaneous general-purpose machinery mfg	1998.. 62 324	2 788 872	2 277 253	511 620	1
		1997.. 62 498	2 765 223	2 265 217	500 006	X
334	Computer & electronic product mfg	1998.. 1 687 323	91 584 384	74 296 424	17 287 960	1
		1997.. 1 695 165	89 683 293	72 635 078	17 048 215	X
3341	Computer & peripheral equipment mfg	1998.. 240 829	13 786 557	11 335 167	2 451 390	2
		1997.. 241 119	13 434 102	10 994 784	2 439 318	X
33411	Computer & peripheral equipment mfg	1998.. 240 829	13 786 557	11 335 167	2 451 390	2
		1997.. 241 119	13 434 102	10 994 784	2 439 318	X
334111	Electronic computer mfg	1998.. 96 782	5 198 606	4 331 484	867 122	1
		1997.. 100 094	5 248 010	4 282 451	965 559	X
334112	Computer storage device mfg	1998.. 44 182	2 503 124	2 014 924	488 200	1
		1997.. 41 123	2 298 295	1 871 113	427 182	X
334113	Computer terminal mfg	1998.. 5 565	271 679	227 007	44 671	5
		1997.. 5 764	303 503	253 087	50 416	X
334119	Other computer peripheral equipment mfg	1998.. 94 300	5 813 149	4 761 752	1 051 396	4
		1997.. 94 138	5 584 294	4 588 133	996 161	X
3342	Communications equipment mfg	1998.. 286 423	17 029 899	13 829 089	3 200 810	1
		1997.. 294 495	16 852 332	13 711 330	3 141 002	X
33421	Telephone apparatus mfg	1998.. 102 170	6 628 737	5 350 793	1 277 944	1
		1997.. 104 372	6 550 087	5 335 174	1 214 913	X
334210	Telephone apparatus mfg	1998.. 102 170	6 628 737	5 350 793	1 277 944	1
		1997.. 104 372	6 550 087	5 335 174	1 214 913	X
33422	Radio & TV broadcasting & wireless communications equipment mfg	1998.. 159 359	9 244 702	7 533 328	1 711 374	1
		1997.. 165 254	9 205 513	7 476 108	1 729 405	X
334220	Radio & TV broadcasting & wireless communications equipment mfg	1998.. 159 359	9 244 702	7 533 328	1 711 374	1
		1997.. 165 254	9 205 513	7 476 108	1 729 405	X
33429	Other communications equipment mfg	1998.. 24 894	1 156 460	944 968	211 492	1
		1997.. 24 869	1 096 732	900 048	196 684	X
334290	Other communications equipment mfg	1998.. 24 894	1 156 460	944 968	211 492	1
		1997.. 24 869	1 096 732	900 048	196 684	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
334	Computer & electronic product mfg—Con.					
3343	Audio & video equipment mfg	1998.. 32 648	1 205 479	961 481	243 998	2
		1997.. 30 431	1 144 955	912 534	232 421	X
33431	Audio & video equipment mfg	1998.. 32 648	1 205 479	961 481	243 998	2
		1997.. 30 431	1 144 955	912 534	232 421	X
334310	Audio & video equipment mfg	1998.. 32 648	1 205 479	961 481	243 998	2
		1997.. 30 431	1 144 955	912 534	232 421	X
3344	Semiconductor & other electronic component mfg	1998.. 584 234	27 629 095	22 476 327	5 152 768	1
		1997.. 589 015	27 351 510	22 264 440	5 087 070	X
33441	Semiconductor & other electronic component mfg	1998.. 584 234	27 629 095	22 476 327	5 152 768	1
		1997.. 589 015	27 351 510	22 264 440	5 087 070	X
334411	Electron tube mfg	1998.. 21 876	973 352	755 378	217 974	1
		1997.. 22 089	958 244	745 316	212 928	X
334412	Bare printed circuit board mfg	1998.. 79 972	2 941 576	2 442 156	499 420	1
		1997.. 76 194	2 775 716	2 307 786	467 930	X
334413	Semiconductor & related device mfg	1998.. 202 858	12 908 074	10 473 275	2 434 799	1
		1997.. 199 706	12 396 635	10 122 645	2 273 990	X
334414	Electronic capacitor mfg	1998.. 17 791	631 253	503 381	127 872	1
		1997.. 18 882	662 567	531 259	131 308	X
334415	Electronic resistor mfg	1998.. 11 317	372 124	300 133	71 991	3
		1997.. 11 964	387 291	314 045	73 246	X
334416	Electronic coil, transformer, & other inductor mfg	1998.. 19 105	576 578	468 390	108 188	2
		1997.. 19 324	561 838	457 404	104 434	X
334417	Electronic connector mfg	1998.. 39 509	1 494 800	1 202 768	292 032	3
		1997.. 37 617	1 467 482	1 172 969	294 513	X
334418	Printed circuit assembly (electronic assembly) mfg	1998.. 101 922	4 304 629	3 541 699	762 931	2
		1997.. 111 407	4 765 693	3 853 852	911 841	X
334419	Other electronic component mfg	1998.. 89 883	3 426 708	2 789 145	637 562	1
		1997.. 91 832	3 376 044	2 759 164	616 880	X
3345	Navigational, measuring, medical, & control instruments mfg	1998.. 485 308	29 565 392	23 761 463	5 803 930	1
		1997.. 485 179	28 595 120	22 868 227	5 726 893	X
33451	Navigational, measuring, medical, & control instruments mfg	1998.. 485 308	29 565 392	23 761 463	5 803 930	1
		1997.. 485 179	28 595 120	22 868 227	5 726 893	X
334510	Electromedical & electrotherapeutic apparatus mfg	1998.. 55 495	3 222 691	2 691 316	531 375	5
		1997.. 55 231	3 181 321	2 644 570	536 751	X
334511	Search, detection, navigation, & guidance instrument mfg	1998.. 187 997	12 856 320	10 246 405	2 609 915	1
		1997.. 187 666	12 615 546	9 954 915	2 660 631	X
334512	Automatic environmental control mfg	1998.. 20 158	843 517	658 533	184 983	4
		1997.. 21 470	858 755	666 464	192 291	X
334513	Industrial process control instrument mfg	1998.. 47 390	2 495 643	2 041 235	454 408	2
		1997.. 49 050	2 461 081	1 997 579	463 502	X
334514	Totalizing fluid meter & counting device mfg	1998.. 16 973	914 805	713 524	201 281	1
		1997.. 17 390	898 490	683 294	215 196	X
334515	Electricity measuring & testing instrument mfg	1998.. 64 692	4 125 800	3 278 329	847 471	2
		1997.. 63 658	3 752 583	3 019 508	733 075	X
334516	Analytical laboratory instrument mfg	1998.. 36 291	2 173 774	1 767 733	406 041	1
		1997.. 36 219	2 105 998	1 703 175	402 823	X
334517	Irradiation apparatus mfg	1998.. 13 437	798 578	656 648	141 931	1
		1997.. 13 714	786 841	644 714	142 127	X
334518	Watch, clock, & part mfg	1998.. 6 709	254 678	202 714	51 964	2
		1997.. 6 333	225 441	178 487	46 954	X
334519	Other measuring & controlling device mfg	1998.. 36 166	1 879 587	1 505 027	374 560	1
		1997.. 34 448	1 709 064	1 375 521	333 543	X
3346	Mfg & reproducing magnetic & optical media	1998.. 57 880	2 367 961	1 932 897	435 064	1
		1997.. 54 926	2 305 274	1 883 763	421 511	X
33461	Mfg & reproducing magnetic & optical media	1998.. 57 880	2 367 961	1 932 897	435 064	1
		1997.. 54 926	2 305 274	1 883 763	421 511	X
334611	Software reproducing	1998.. 11 396	428 702	359 577	69 125	6
		1997.. 8 027	375 173	310 933	64 240	X
334612	Prerecorded CD (except software), tape, & record reproducing	1998.. 26 756	1 022 219	838 159	184 060	1
		1997.. 25 554	915 265	756 860	158 405	X
334613	Magnetic & optical recording media mfg	1998.. 19 728	917 040	735 161	181 879	2
		1997.. 21 345	1 014 836	815 970	198 866	X
335	Electrical equipment, appliance, & component mfg	1998.. 601 099	25 220 863	19 710 740	5 510 124	1
		1997.. 594 259	24 234 760	18 957 344	5 277 416	X
3351	Electric lighting equipment mfg	1998.. 73 927	2 777 520	2 212 396	565 124	1
		1997.. 74 960	2 765 812	2 203 938	561 874	X
33511	Electric lamp bulb & part mfg	1998.. 16 004	749 494	560 394	189 100	1
		1997.. 15 903	760 947	574 696	186 251	X
335110	Electric lamp bulb & part mfg	1998.. 16 004	749 494	560 394	189 100	1
		1997.. 15 903	760 947	574 696	186 251	X
33512	Lighting fixture mfg	1998.. 57 923	2 028 026	1 652 002	376 024	2
		1997.. 59 057	2 004 865	1 629 242	375 623	X
335121	Residential electric lighting fixture mfg	1998.. 18 212	560 861	469 851	91 009	1
		1997.. 17 685	515 387	430 538	84 849	X
335122	Commercial/industrial/institutional electric lighting fixture mfg	1998.. 22 732	807 146	651 408	155 739	1
		1997.. 23 090	811 134	657 341	153 793	X
335129	Other lighting equipment mfg	1998.. 16 978	660 019	530 743	129 276	6
		1997.. 18 282	678 344	541 363	136 981	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
335	Electrical equipment, appliance, & component mfg— Con.					
3352	Household appliance mfg	1998.. 99 794	4 093 460	3 101 098	992 362	1
		1997.. 97 384	3 878 063	2 923 925	954 138	X
33521	Small electrical appliance mfg	1998.. 25 973	946 729	728 669	218 059	1
		1997.. 27 595	971 855	751 887	219 968	X
335211	Electric housewares & household fan mfg	1998.. 15 746	484 659	377 395	107 264	1
		1997.. 17 058	525 830	411 389	114 441	X
335212	Household vacuum cleaner mfg	1998.. 10 226	462 070	351 274	110 795	1
		1997.. 10 537	446 025	340 498	105 527	X
33522	Major appliance mfg	1998.. 73 822	3 146 732	2 372 428	774 303	1
		1997.. 69 789	2 906 205	2 172 038	734 170	X
335221	Household cooking appliance mfg	1998.. 18 668	681 524	539 741	141 782	8
		1997.. 17 543	611 876	480 836	131 040	X
335222	Household refrigerator & home freezer mfg	1998.. 25 177	1 166 739	846 036	320 703	1
		1997.. 24 597	1 117 658	801 717	315 941	X
335224	Household laundry equipment mfg	1998.. 16 753	747 201	565 508	181 693	1
		1997.. 14 801	639 435	480 076	159 359	X
335228	Other major household appliance mfg	1998.. 13 224	551 268	421 143	130 125	1
		1997.. 12 848	537 239	409 409	127 830	X
3353	Electrical equipment mfg	1998.. 208 113	8 967 868	7 000 266	1 967 602	2
		1997.. 210 628	8 799 010	6 879 392	1 919 618	X
33531	Electrical equipment mfg	1998.. 208 113	8 967 868	7 000 266	1 967 602	2
		1997.. 210 628	8 799 010	6 879 392	1 919 618	X
335311	Power, distribution, & specialty transformer mfg	1998.. 28 145	1 039 711	820 270	219 441	10
		1997.. 26 920	1 040 195	826 826	213 369	X
335312	Motor & generator mfg	1998.. 70 293	2 774 236	2 123 613	650 623	3
		1997.. 74 595	2 842 535	2 182 005	660 530	X
335313	Switchgear & switchboard apparatus mfg	1998.. 42 225	1 964 985	1 514 184	450 801	3
		1997.. 40 906	1 859 341	1 443 658	415 683	X
335314	Relay & industrial control mfg	1998.. 67 450	3 188 936	2 542 199	646 737	1
		1997.. 68 207	3 056 939	2 426 903	630 036	X
3359	Other electrical equipment & component mfg	1998.. 219 265	9 382 015	7 396 980	1 985 035	1
		1997.. 211 287	8 791 875	6 950 089	1 841 786	X
33591	Battery mfg	1998.. 31 197	1 405 396	1 082 269	323 127	1
		1997.. 32 205	1 384 894	1 071 046	313 848	X
335911	Storage battery mfg	1998.. 22 441	1 010 572	773 814	236 758	1
		1997.. 23 288	1 023 781	789 579	234 202	X
335912	Primary battery mfg	1998.. 8 756	394 824	308 455	86 369	1
		1997.. 8 917	361 113	281 467	79 646	X
33592	Communication & energy wire & cable mfg	1998.. 56 181	2 568 365	2 005 692	562 674	1
		1997.. 54 856	2 419 803	1 897 515	522 288	X
335921	Fiber optic cable mfg	1998.. 8 949	503 870	388 751	115 120	1
		1997.. 8 589	470 112	364 654	105 458	X
335929	Other communication & energy wire mfg	1998.. 47 232	2 064 495	1 616 941	447 554	1
		1997.. 46 267	1 949 691	1 532 861	416 830	X
33593	Wiring device mfg	1998.. 71 562	2 795 010	2 209 806	585 204	1
		1997.. 68 447	2 631 937	2 080 658	551 279	X
335931	Current-carrying wiring device mfg	1998.. 46 637	1 762 793	1 389 097	373 695	1
		1997.. 44 907	1 648 592	1 293 583	355 009	X
335932	Noncurrent-carrying wiring device mfg	1998.. 24 925	1 032 217	820 708	211 509	1
		1997.. 23 540	983 345	787 075	196 270	X
33599	All other electrical equipment & component mfg ..	1998.. 60 325	2 613 244	2 099 214	514 031	1
		1997.. 55 779	2 355 241	1 900 870	454 371	X
335991	Carbon & graphite product mfg	1998.. 10 856	539 195	408 514	130 681	2
		1997.. 10 931	535 336	407 673	127 663	X
335999	All other miscellaneous electrical equipment & component mfg	1998.. 49 469	2 074 049	1 690 700	383 349	1
		1997.. 44 848	1 819 905	1 493 197	326 708	X
336	Transportation equipment mfg	1998.. 1 905 683	105 606 851	82 410 293	23 196 558	1
		1997.. 1 851 478	104 405 794	79 843 003	24 562 791	X
3361	Motor vehicle mfg	1998.. 233 324	17 074 173	12 950 694	4 123 480	1
		1997.. 236 052	18 292 847	13 016 981	5 275 866	X
33611	Automobile & light duty motor vehicle mfg	1998.. 199 942	15 201 240	11 518 933	3 682 307	1
		1997.. 207 838	16 645 596	11 804 330	4 841 266	X
336111	Automobile mfg	1998.. 109 196	8 092 613	6 054 334	2 038 279	1
		1997.. 113 820	8 981 236	6 404 445	2 576 791	X
336112	Light truck & utility vehicle mfg	1998.. 90 746	7 108 626	5 464 598	1 644 028	1
		1997.. 94 018	7 664 360	5 399 885	2 264 475	X
33612	Heavy duty truck mfg	1998.. 33 382	1 872 934	1 431 761	441 173	1
		1997.. 28 214	1 647 251	1 212 651	434 600	X
336120	Heavy duty truck mfg	1998.. 33 382	1 872 934	1 431 761	441 173	1
		1997.. 28 214	1 647 251	1 212 651	434 600	X
3362	Motor vehicle body & trailer mfg	1998.. 131 427	4 460 356	3 676 897	783 458	1
		1997.. 125 574	4 173 565	3 392 158	781 407	X
33621	Motor vehicle body & trailer mfg	1998.. 131 427	4 460 356	3 676 897	783 458	1
		1997.. 125 574	4 173 565	3 392 158	781 407	X
336211	Motor vehicle body mfg	1998.. 44 559	1 563 059	1 295 009	268 050	3
		1997.. 43 399	1 516 037	1 241 259	274 778	X
336212	Truck trailer mfg	1998.. 32 992	1 147 500	932 615	214 885	2
		1997.. 30 678	1 077 257	836 590	240 667	X
336213	Motor home mfg	1998.. 18 608	667 493	552 243	115 250	1
		1997.. 18 086	609 866	507 700	102 166	X
336214	Travel trailer & camper mfg	1998.. 35 268	1 082 303	897 030	185 274	2
		1997.. 33 411	970 405	806 609	163 796	X
3363	Motor vehicle parts mfg	1998.. 802 612	41 024 541	31 675 440	9 349 101	1
		1997.. 788 210	41 468 737	31 187 706	10 281 031	X
33631	Motor vehicle gasoline engine & engine parts mfg	1998.. 98 674	5 497 522	4 220 259	1 277 263	1
		1997.. 98 113	5 525 111	4 189 632	1 335 479	X
336311	Carburetor, piston, piston ring, & valve mfg	1998.. 17 469	901 818	702 127	199 691	3
		1997.. 17 241	867 001	663 961	203 040	X
336312	Gasoline engine & engine parts mfg	1998.. 81 205	4 595 704	3 518 133	1 077 571	1
		1997.. 80 872	4 658 110	3 525 671	1 132 439	X

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NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
336	Transportation equipment mfg—Con.					
3363	Motor vehicle parts mfg—Con.					
33632	Motor vehicle electrical & electronic equipment mfg	1998.. 114 394	4 653 224	3 607 907	1 045 317	1
		1997.. 111 999	4 909 077	3 682 944	1 226 133	X
336321	Motor vehicle lighting equipment mfg	1998.. 15 221	774 582	589 727	184 855	1
		1997.. 16 506	863 704	628 534	235 170	X
336322	Other motor vehicle electrical & electronic equipment mfg	1998.. 99 173	3 878 642	3 018 180	860 462	1
		1997.. 95 493	4 045 373	3 054 410	990 963	X
33633	Motor vehicle steering & suspension component (except spring) mfg	1998.. 47 469	2 961 126	2 262 317	698 809	1
		1997.. 48 567	3 162 312	2 336 701	825 611	X
336330	Motor vehicle steering & suspension component (except spring) mfg	1998.. 47 469	2 961 126	2 262 317	698 809	1
		1997.. 48 567	3 162 312	2 336 701	825 611	X
33634	Motor vehicle brake system mfg	1998.. 45 929	2 047 491	1 555 623	491 868	1
		1997.. 43 425	2 011 960	1 513 625	498 335	X
336340	Motor vehicle brake system mfg	1998.. 45 929	2 047 491	1 555 623	491 868	1
		1997.. 43 425	2 011 960	1 513 625	498 335	X
33635	Motor vehicle transmission & power train parts mfg	1998.. 111 548	7 382 616	5 675 008	1 707 608	1
		1997.. 110 235	7 344 065	5 490 165	1 853 900	X
336350	Motor vehicle transmission & power train parts mfg	1998.. 111 548	7 382 616	5 675 008	1 707 608	1
		1997.. 110 235	7 344 065	5 490 165	1 853 900	X
33636	Motor vehicle seating & interior trim mfg	1998.. 48 419	2 063 732	1 628 899	434 833	1
		1997.. 47 015	1 968 179	1 515 321	452 858	X
336360	Motor vehicle seating & interior trim mfg	1998.. 48 419	2 063 732	1 628 899	434 833	1
		1997.. 47 015	1 968 179	1 515 321	452 858	X
33637	Motor vehicle metal stamping	1998.. 123 570	7 032 131	5 471 211	1 560 920	1
		1997.. 126 905	7 580 235	5 647 964	1 932 271	X
336370	Motor vehicle metal stamping	1998.. 123 570	7 032 131	5 471 211	1 560 920	1
		1997.. 126 905	7 580 235	5 647 964	1 932 271	X
33639	Other motor vehicle parts mfg	1998.. 212 608	9 386 700	7 254 217	2 132 483	1
		1997.. 201 951	8 967 798	6 811 354	2 156 444	X
336391	Motor vehicle air-conditioning mfg	1998.. 21 310	1 334 116	999 087	335 029	1
		1997.. 21 522	1 479 610	1 053 943	425 667	X
336399	All other motor vehicle parts mfg	1998.. 191 298	8 052 584	6 255 130	1 797 454	1
		1997.. 180 429	7 488 188	5 757 411	1 730 777	X
3364	Aerospace product & parts mfg	1998.. 521 679	33 837 909	26 882 756	6 955 153	1
		1997.. 486 480	31 454 496	25 132 696	6 321 800	X
33641	Aerospace product & parts mfg	1998.. 521 679	33 837 909	26 882 756	6 955 153	1
		1997.. 486 480	31 454 496	25 132 696	6 321 800	X
336411	Aircraft mfg	1998.. 213 083	14 228 846	11 278 437	2 950 408	1
		1997.. 202 596	13 370 966	10 842 393	2 528 573	X
336412	Aircraft engine & engine parts mfg	1998.. 85 801	5 511 807	4 346 011	1 165 796	1
		1997.. 83 877	5 394 079	4 280 732	1 113 347	X
336413	Other aircraft part & auxiliary equipment mfg	1998.. 145 465	8 232 324	6 505 271	1 727 054	1
		1997.. 124 434	7 113 609	5 562 967	1 550 642	X
336414	Guided missile & space vehicle mfg	1998.. 52 955	4 186 342	3 422 407	763 935	1
		1997.. 51 398	3 900 580	3 123 246	777 334	X
336415	Guided missile & space vehicle propulsion unit & parts mfg	1998.. 16 685	1 234 145	978 396	255 749	1
		1997.. 17 738	1 305 427	1 031 920	273 507	X
336419	Other guided missile & space vehicle parts & auxiliary equip mfg	1998.. 7 689	444 445	352 234	92 211	1
		1997.. 6 437	369 835	291 438	78 397	X
3365	Railroad rolling stock mfg	1998.. 37 351	1 888 980	1 433 987	454 993	1
		1997.. 34 012	1 739 073	1 319 135	419 938	X
33651	Railroad rolling stock mfg	1998.. 37 351	1 888 980	1 433 987	454 993	1
		1997.. 34 012	1 739 073	1 319 135	419 938	X
336510	Railroad rolling stock mfg	1998.. 37 351	1 888 980	1 433 987	454 993	1
		1997.. 34 012	1 739 073	1 319 135	419 938	X
3366	Ship & boat building	1998.. 137 912	5 522 732	4 350 350	1 172 382	1
		1997.. 138 904	5 547 501	4 396 251	1 151 250	X
33661	Ship & boat building	1998.. 137 912	5 522 732	4 350 350	1 172 382	1
		1997.. 138 904	5 547 501	4 396 251	1 151 250	X
336611	Ship building & repairing	1998.. 94 595	4 175 006	3 232 249	942 757	1
		1997.. 97 482	4 302 703	3 362 277	940 426	X
336612	Boat building	1998.. 43 317	1 347 726	1 118 101	229 625	1
		1997.. 41 422	1 244 798	1 033 974	210 824	X
3369	Other transportation equipment mfg	1998.. 41 379	1 798 159	1 440 168	357 991	1
		1997.. 42 246	1 729 575	1 398 076	331 499	X
33699	Other transportation equipment mfg	1998.. 41 379	1 798 159	1 440 168	357 991	1
		1997.. 42 246	1 729 575	1 398 076	331 499	X
336991	Motorcycle, bicycle, & parts mfg	1998.. 16 269	748 780	620 738	128 041	2
		1997.. 17 218	749 815	623 364	126 451	X
336992	Military armored vehicle, tank, & tank component mfg	1998.. 5 091	362 367	259 094	103 273	1
		1997.. 5 822	354 586	268 623	85 963	X
336999	All other transportation equipment mfg	1998.. 20 019	687 012	560 336	126 676	2
		1997.. 19 206	625 174	506 089	119 085	X
337	Furniture & related product mfg	1998.. 631 636	19 804 539	16 185 101	3 619 438	1
		1997.. 606 794	18 418 896	15 034 218	3 384 678	X
3371	Household & institutional furniture & kitchen cabinet mfg	1998.. 408 555	11 531 080	9 555 118	1 975 962	1
		1997.. 389 453	10 630 811	8 786 833	1 843 978	X
33711	Wood kitchen cabinet & counter top mfg	1998.. 106 589	3 036 482	2 528 005	508 477	2
		1997.. 99 322	2 801 072	2 322 958	478 114	X
337110	Wood kitchen cabinet & counter top mfg	1998.. 106 589	3 036 482	2 528 005	508 477	2
		1997.. 99 322	2 801 072	2 322 958	478 114	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
337	Furniture & related product mfg—Con.					
3371	Household & institutional furniture & kitchen cabinet mfg—Con.					
33712	Household & institutional furniture mfg	1998.. 301 966	8 494 599	7 027 113	1 467 486	1
		1997.. 290 131	7 829 739	6 463 875	1 365 864	X
337121	Upholstered household furniture mfg	1998.. 93 913	2 547 894	2 134 986	412 908	1
		1997.. 90 009	2 407 321	2 022 565	384 756	X
337122	Nonupholstered wood household furniture mfg	1998.. 133 155	3 562 052	2 929 544	632 508	1
		1997.. 128 248	3 263 330	2 682 926	580 404	X
337124	Metal household furniture mfg	1998.. 23 749	714 326	573 551	140 775	4
		1997.. 22 835	629 654	503 957	125 697	X
337125	Household furniture (except wood & metal) mfg	1998.. 4 796	135 318	115 774	19 544	4
		1997.. 4 708	139 045	111 758	27 287	X
337127	Institutional furniture mfg	1998.. 41 990	1 423 183	1 184 153	239 030	4
		1997.. 40 058	1 284 104	1 058 278	225 826	X
337129	Wood television, radio, & sewing machine cabinet mfg	1998.. 4 364	111 825	89 105	22 721	2
		1997.. 4 273	106 285	84 391	21 894	X
3372	Office furniture (including fixtures) mfg	1998.. 178 340	6 827 483	5 477 182	1 350 302	1
		1997.. 174 652	6 468 573	5 198 998	1 269 575	X
33721	Office furniture (including fixtures) mfg	1998.. 178 340	6 827 483	5 477 182	1 350 302	1
		1997.. 174 652	6 468 573	5 198 998	1 269 575	X
337211	Wood office furniture mfg	1998.. 31 502	1 004 741	822 380	182 361	1
		1997.. 30 641	958 122	781 220	176 902	X
337212	Custom architectural woodwork & millwork mfg	1998.. 25 534	952 866	785 936	166 930	7
		1997.. 24 376	868 917	715 401	153 516	X
337214	Office furniture (except wood) mfg	1998.. 46 303	2 259 574	1 725 322	534 252	1
		1997.. 44 222	2 097 125	1 621 167	475 958	X
337215	Showcase, partition, shelving, & locker mfg	1998.. 75 002	2 610 302	2 143 544	466 758	2
		1997.. 75 413	2 544 409	2 081 210	463 199	X
3379	Other furniture related product mfg	1998.. 44 741	1 445 975	1 152 801	293 174	2
		1997.. 42 689	1 319 512	1 048 387	271 125	X
33791	Mattress mfg	1998.. 23 636	824 322	660 090	164 232	4
		1997.. 23 072	761 867	611 630	150 237	X
337910	Mattress mfg	1998.. 23 636	824 322	660 090	164 232	4
		1997.. 23 072	761 867	611 630	150 237	X
33792	Blind & shade mfg	1998.. 21 105	621 654	492 712	128 942	1
		1997.. 19 617	557 645	436 757	120 888	X
337920	Blind & shade mfg	1998.. 21 105	621 654	492 712	128 942	1
		1997.. 19 617	557 645	436 757	120 888	X
339	Miscellaneous mfg	1998.. 763 803	28 755 708	23 396 326	5 359 382	1
		1997.. 733 946	26 949 942	21 934 826	5 015 116	X
3391	Medical equipment & supplies mfg	1998.. 319 890	14 164 366	11 365 899	2 798 468	2
		1997.. 296 330	12 761 104	10 247 977	2 513 127	X
33911	Medical equipment & supplies mfg	1998.. 319 890	14 164 366	11 365 899	2 798 468	2
		1997.. 296 330	12 761 104	10 247 977	2 513 127	X
339111	Laboratory apparatus & furniture mfg	1998.. 18 485	854 491	700 735	153 756	2
		1997.. 18 253	848 000	686 742	161 258	X
339112	Surgical & medical instrument mfg	1998.. 110 869	5 433 242	4 388 288	1 044 954	1
		1997.. 107 130	5 117 207	4 128 530	988 677	X
339113	Surgical appliance & supplies mfg	1998.. 93 938	4 460 578	3 508 003	952 575	7
		1997.. 85 315	3 750 026	2 980 530	769 496	X
339114	Dental equipment & supplies mfg	1998.. 18 093	781 280	634 859	146 421	2
		1997.. 18 072	760 052	613 286	146 766	X
339115	Ophthalmic goods mfg	1998.. 27 144	1 080 366	868 368	211 998	1
		1997.. 26 366	1 012 230	814 242	197 988	X
339116	Dental laboratories	1998.. 51 362	1 554 410	1 265 646	288 764	1
		1997.. 41 194	1 273 589	1 024 647	248 942	X
3399	Other miscellaneous mfg	1998.. 443 913	14 591 341	12 030 427	2 560 914	1
		1997.. 437 616	14 188 838	11 686 849	2 501 989	X
33991	Jewelry & silverware mfg	1998.. 59 421	1 868 382	1 560 675	307 707	2
		1997.. 61 223	1 842 040	1 532 824	309 216	X
339911	Jewelry (except costume) mfg	1998.. 33 122	1 059 187	895 518	163 668	3
		1997.. 34 773	1 054 084	886 562	167 522	X
339912	Silverware & plated ware mfg	1998.. 6 364	253 502	209 400	44 101	4
		1997.. 6 481	227 970	187 166	40 804	X
339913	Jewelers' material & lapidary work mfg	1998.. 6 080	169 752	140 583	29 169	5
		1997.. 5 396	164 092	132 940	31 152	X
339914	Costume jewelry & novelty mfg	1998.. 13 855	385 942	315 173	70 769	3
		1997.. 14 573	395 894	326 156	69 738	X
33992	Sporting & athletic goods mfg	1998.. 69 389	2 235 211	1 820 854	414 357	1
		1997.. 69 664	2 250 042	1 841 264	408 778	X
339920	Sporting & athletic goods mfg	1998.. 69 389	2 235 211	1 820 854	414 357	1
		1997.. 69 664	2 250 042	1 841 264	408 778	X
33993	Doll, toy, & game mfg	1998.. 33 338	1 047 418	860 471	186 947	2
		1997.. 32 693	1 016 205	830 345	185 860	X
339931	Doll & stuffed toy mfg	1998.. 3 645	77 424	67 220	10 204	9
		1997.. 3 393	72 493	63 722	8 771	X
339932	Game, toy, & children's vehicle mfg	1998.. 29 693	969 994	793 251	176 743	2
		1997.. 29 300	943 712	766 623	177 089	X
33994	Office supplies (except paper) mfg	1998.. 28 617	998 553	810 047	188 506	6
		1997.. 30 138	985 389	790 191	195 198	X
339941	Pen & mechanical pencil mfg	1998.. 9 308	381 438	305 747	75 691	4
		1997.. 8 394	332 192	261 580	70 612	X
339942	Lead pencil & art good mfg	1998.. 7 619	261 311	207 329	53 982	1
		1997.. 7 990	249 975	195 586	54 389	X
339943	Marking device mfg	1998.. 8 061	222 382	187 576	34 807	1
		1997.. 7 831	219 180	185 316	33 864	X
339944	Carbon paper & inked ribbon mfg	1998.. 3 629	133 421	109 395	24 026	46
		1997.. 5 923	184 042	147 709	36 333	X

See footnotes at end of table.

Table 3. Employment and Labor Costs for Operating Manufacturing Establishments by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Compensation (\$1,000)				Relative standard error of estimate ¹ (percent) for column—
		All employees	Total	Payroll	Total fringe benefits	
339	Miscellaneous mfg—Con.					
3399	Other miscellaneous mfg—Con.					
33995	Sign mfg	1998.. 84 260	2 867 157	2 426 297	440 861	2
		1997.. 83 052	2 829 410	2 386 738	442 672	X
339950	Sign mfg	1998.. 84 260	2 867 157	2 426 297	440 861	2
		1997.. 83 052	2 829 410	2 386 738	442 672	X
33999	All other miscellaneous mfg	1998.. 168 887	5 574 620	4 552 084	1 022 536	1
		1997.. 160 846	5 265 752	4 305 487	960 265	X
339991	Gasket, packing, & sealing device mfg	1998.. 42 670	1 667 912	1 318 999	348 913	2
		1997.. 41 655	1 600 353	1 279 026	321 327	X
339992	Musical instrument mfg	1998.. 14 680	515 897	429 306	86 591	6
		1997.. 13 411	440 215	363 022	77 193	X
339993	Fastener, button, needle, & pin mfg	1998.. 7 980	257 743	211 529	46 213	1
		1997.. 7 842	248 007	206 148	41 859	X
339994	Broom, brush, & mop mfg	1998.. 16 257	518 270	428 607	89 664	7
		1997.. 17 447	542 864	449 669	93 195	X
339995	Burial casket mfg	1998.. 7 499	264 326	216 242	48 084	1
		1997.. 6 962	261 824	212 491	49 333	X
339999	All other miscellaneous mfg	1998.. 79 801	2 350 472	1 947 402	403 070	1
		1997.. 73 529	2 172 489	1 795 131	377 358	X

¹Description of relative standard error of estimate is given in Appendix B. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note: 1997 data may differ from that published in the 1997 Census of Manufactures final industry series because of changes encountered in subsequent 1997 census review or revisions discovered during 1998 Annual Survey of Manufactures review.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997

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

NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—		
			Purchased		Generated less sold (1,000 kWh)		C	E	
			Quantity (1,000 kWh)	Cost (\$1,000)					D
			A	B					
31-33	Manufacturing	1998.. 63 966 642 1997.. 65 102 177	822 418 926 829 332 874	38 640 679 38 832 853	111 938 550 92 601 756	25 325 963 26 269 324	1 X	1 X	
311	Food mfg	1998.. 5 647 103 1997.. 5 596 709	62 341 216 60 802 155	3 167 911 3 127 188	4 285 270 4 342 538	2 479 192 2 469 521	1 X	1 X	
3111	Animal food mfg	1998.. 279 807 1997.. 286 847	3 111 302 3 106 384	170 116 168 443	46 543 —	109 692 118 404	2 X	3 X	
31111	Animal food mfg	1998.. 279 807 1997.. 286 847	3 111 302 3 106 384	170 116 168 443	46 543 —	109 692 118 404	2 X	3 X	
311111	Dog & cat food mfg	1998.. 100 708 1997.. 99 026	1 086 656 1 037 227	56 628 54 005	6 608 —	44 081 45 021	1 X	2 X	
311119	Other animal food mfg	1998.. 179 099 1997.. 187 821	2 024 646 2 069 157	113 488 114 438	39 935 —	65 611 73 383	2 X	4 X	
3112	Grain & oilseed milling	1998.. 1 278 085 1997.. 1 236 366	13 389 893 14 239 142	588 409 630 081	2 780 536 2 764 730	689 676 606 285	1 X	1 X	
31121	Flour milling & malt mfg	1998.. 213 993 1997.. 207 050	3 087 137 3 025 354	161 771 156 996	D D	52 222 50 054	1 X	3 X	
311211	Flour milling	1998.. 146 977 1997.. 133 881	2 238 208 2 166 089	120 187 115 094	12 696 10 789	26 790 18 787	1 X	3 X	
311212	Rice milling	1998.. 32 346 1997.. 31 611	440 392 434 801	25 237 25 257	D D	7 109 6 354	4 X	7 X	
311213	Malt mfg	1998.. 34 670 1997.. 41 558	408 536 424 464	16 348 16 645	D D	18 322 24 913	3 X	7 X	
31122	Starch & vegetable fats & oils mfg	1998.. 974 155 1997.. 938 957	9 207 468 10 189 373	374 416 423 774	2 597 032 2 573 682	599 739 515 183	1 X	1 X	
311221	Wet corn milling	1998.. 599 952 1997.. 601 431	5 856 395 6 902 497	217 852 280 943	2 010 895 1 876 208	382 100 320 488	1 X	1 X	
311222	Soybean processing	1998.. 231 541 1997.. 201 293	1 715 237 1 627 095	81 056 72 647	557 873 637 139	150 484 128 646	1 X	1 X	
311223	Other oilseed processing	1998.. 46 562 1997.. 50 878	649 449 854 139	29 962 31 205	D D	16 600 19 673	2 X	1 X	
311225	Fats & oils refining & blending	1998.. 96 100 1997.. 85 355	986 386 805 642	45 546 38 979	D D	50 554 46 376	1 X	1 X	
31123	Breakfast cereal mfg	1998.. 89 938 1997.. 90 359	1 095 288 1 024 415	52 221 49 311	D D	37 716 41 048	1 X	1 X	
311230	Breakfast cereal mfg	1998.. 89 938 1997.. 90 359	1 095 288 1 024 415	52 221 49 311	D D	37 716 41 048	1 X	1 X	
3113	Sugar & confectionery product mfg	1998.. 401 345 1997.. 398 423	3 106 039 2 995 774	166 446 157 715	841 534 1 071 682	234 899 240 708	2 X	1 X	
31131	Sugar mfg	1998.. 231 498 1997.. 229 585	1 018 146 936 973	44 229 42 434	741 024 950 515	187 269 187 151	1 X	2 X	
311311	Sugarcane mills	1998.. 21 850 1997.. 28 337	166 625 140 010	9 044 9 472	273 532 224 453	12 807 18 865	6 X	23 X	
311312	Cane sugar refining	1998.. 55 928 1997.. 56 167	100 616 96 009	6 183 6 354	168 896 356 236	49 745 49 813	1 X	1 X	
311313	Beet sugar mfg	1998.. 153 719 1997.. 145 081	750 905 700 954	29 002 26 608	298 596 369 826	124 717 118 473	1 X	1 X	
31132	Chocolate & confectionery mfg from cacao beans	1998.. 39 719 1997.. 35 101	511 059 469 685	29 836 24 897	S 957	9 882 10 204	9 X	3 X	
311320	Chocolate & confectionery mfg from cacao beans	1998.. 39 719 1997.. 35 101	511 059 469 685	29 836 24 897	S 957	9 882 10 204	9 X	3 X	
31133	Confectionery mfg from purchased chocolate	1998.. 72 295 1997.. 75 678	925 017 970 641	52 407 52 805	D D	19 888 22 873	2 X	2 X	
311330	Confectionery mfg from purchased chocolate	1998.. 72 295 1997.. 75 678	925 017 970 641	52 407 52 805	D D	19 888 22 873	2 X	2 X	
31134	Nonchocolate confectionery mfg	1998.. 57 833 1997.. 58 059	651 816 618 475	39 973 37 579	D D	17 860 20 480	2 X	2 X	
311340	Nonchocolate confectionery mfg	1998.. 57 833 1997.. 58 059	651 816 618 475	39 973 37 579	D D	17 860 20 480	2 X	2 X	
3114	Fruit & vegetable preserving & specialty food mfg	1998.. 825 129 1997.. 781 727	9 885 326 8 286 876	487 278 437 394	433 301 337 286	337 851 344 333	1 X	5 X	
31141	Frozen food mfg	1998.. 426 632 1997.. 372 451	6 729 228 5 038 752	295 818 247 693	51 318 49 771	130 814 124 758	1 X	3 X	
311411	Frozen fruit, juice, & vegetable mfg	1998.. 300 382 1997.. 247 998	4 903 455 3 292 705	197 390 152 666	51 503 49 771	102 992 95 332	1 X	4 X	
311412	Frozen specialty food mfg	1998.. 126 251 1997.. 124 453	1 825 773 1 746 047	98 428 95 027	S —	27 823 29 426	1 X	2 X	
31142	Fruit & vegetable canning, pickling, & drying	1998.. 398 497 1997.. 409 276	3 156 098 3 248 124	191 460 189 701	381 983 287 515	207 037 219 575	1 X	7 X	
311421	Fruit & vegetable canning	1998.. 263 144 1997.. 255 871	1 958 163 2 001 492	125 302 122 914	D D	137 842 132 957	1 X	2 X	
311422	Specialty canning	1998.. 69 755 1997.. 69 355	602 046 632 243	33 685 34 022	D S	36 071 35 333	3 X	2 X	
311423	Dried & dehydrated food mfg	1998.. 65 598 1997.. 84 050	595 889 614 389	32 474 32 765	D —	33 124 51 285	1 X	44 X	
3115	Dairy product mfg	1998.. 604 403 1997.. 614 744	7 406 670 7 223 994	398 066 394 166	24 208 9 119	206 337 220 578	2 X	2 X	
31151	Dairy product (except frozen) mfg	1998.. 522 547 1997.. 532 986	6 236 644 6 034 966	329 262 323 800	24 208 9 119	193 285 209 186	2 X	2 X	
311511	Fluid milk mfg	1998.. 226 716 1997.. 230 034	2 753 242 2 679 934	164 463 160 999	D D	62 253 69 035	1 X	4 X	
311512	Creamery butter mfg	1998.. 9 274 1997.. 10 343	104 215 100 121	5 196 5 378	D D	4 078 4 965	2 X	9 X	
311513	Cheese mfg	1998.. 190 146 1997.. 187 662	2 315 124 2 182 105	107 811 104 217	S —	82 335 83 445	3 X	2 X	
311514	Dry, condensed, & evaporated dairy product mfg	1998.. 96 411 1997.. 104 947	1 064 063 1 071 909	51 793 53 206	— —	44 618 51 741	8 X	6 X	
31152	Ice cream & frozen dessert mfg	1998.. 81 856 1997.. 81 758	1 170 026 1 189 925	68 804 70 366	— —	13 052 11 392	5 X	7 X	
311520	Ice cream & frozen dessert mfg	1998.. 81 856 1997.. 81 758	1 170 026 1 189 925	68 804 70 366	— —	13 052 11 392	5 X	7 X	

See footnotes at end of table.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy				Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—		
			Purchased		Generated less sold (1,000 kWh)	C		E	C	E
			Quantity (1,000 kWh)	Cost (\$1,000)						
		A	B	C	D	E	C	E		
311	Food mfg—Con.									
3116	Meat product mfg	1998.. 1 100 036	14 026 464	682 237	4 644	417 799	1	1		
		1997.. 1 134 586	13 992 880	685 435	2 521	449 151	X	X		
31161	Animal slaughtering & processing	1998.. 1 100 036	14 026 464	682 237	4 644	417 799	1	1		
		1997.. 1 134 586	13 992 880	685 435	2 521	449 151	X	X		
311611	Animal (except poultry) slaughtering	1998.. 294 138	4 204 414	186 364	107 774	107 774	1	1		
		1997.. 337 749	4 751 145	212 764	D	124 985	X	X		
311612	Meat processed from carcasses	1998.. 306 420	D	181 804	D	124 616	2	1		
		1997.. 287 542	D	169 748	D	117 794	X	X		
311613	Rendering & meat byproduct processing	1998.. 136 022	D	48 061	623	87 961	1	6		
		1997.. 141 847	D	45 352	180	96 495	X	X		
311615	Poultry processing	1998.. 363 456	5 530 514	266 008	973	97 448	1	2		
		1997.. 367 448	5 290 650	257 571	794	109 877	X	X		
3117	Seafood product preparation & packaging	1998.. 106 479	858 466	55 286	122 592	51 193	6	4		
		1997.. 116 872	934 200	59 144	106 651	57 728	X	X		
31171	Seafood product preparation & packaging	1998.. 106 479	858 466	55 286	122 592	51 193	6	4		
		1997.. 116 872	934 200	59 144	106 651	57 728	X	X		
311711	Seafood canning	1998.. 13 189	76 128	6 451	D	6 738	6	6		
		1997.. 14 910	86 333	7 138	D	7 772	X	X		
311712	Fresh & frozen seafood processing	1998.. 93 290	782 337	48 835	D	44 455	7	4		
		1997.. 101 962	847 867	52 006	D	49 956	X	X		
3118	Bakeries & tortilla mfg	1998.. 580 627	5 783 788	345 201	28 518	235 426	1	1		
		1997.. 575 782	5 701 345	339 641	47 662	236 141	X	X		
31181	Bread & bakery product mfg	1998.. 399 679	3 728 359	227 591	20 768	172 089	1	1		
		1997.. 385 086	3 500 185	213 813	43 975	171 273	X	X		
311811	Retail bakeries	1998.. 47 274	424 507	26 488	—	20 787	3	3		
		1997.. 28 170	273 250	15 529	—	12 641	X	X		
311812	Commercial bakeries	1998.. 313 491	2 787 260	169 862	D	143 629	1	1		
		1997.. 316 562	2 736 948	167 576	D	148 986	X	X		
311813	Frozen cakes, pies, & other pastries mfg	1998.. 38 914	516 592	31 241	D	7 673	4	12		
		1997.. 40 354	489 987	30 708	D	9 646	X	X		
31182	Cookie, cracker, & pasta mfg	1998.. 159 541	1 881 727	105 547	7 750	53 994	1	1		
		1997.. 168 461	2 024 981	113 509	3 687	54 952	X	X		
311821	Cookie & cracker mfg	1998.. 93 193	973 081	54 361	7 750	38 832	1	1		
		1997.. 93 474	954 768	53 897	3 687	39 577	X	X		
311822	Flour mixes & dough mfg from purchased flour	1998.. 44 779	630 491	35 349	—	9 430	1	2		
		1997.. 45 620	664 092	36 412	—	9 208	X	X		
311823	Dry pasta mfg	1998.. 21 569	278 154	15 337	—	5 732	1	1		
		1997.. 29 367	406 121	23 200	—	6 167	X	X		
31183	Tortilla mfg	1998.. 21 406	173 703	12 064	—	9 343	1	1		
		1997.. 22 235	176 179	12 319	—	9 916	X	X		
311830	Tortilla mfg	1998.. 21 406	173 703	12 064	—	9 343	1	1		
		1997.. 22 235	176 179	12 319	—	9 916	X	X		
3119	Other food mfg	1998.. 471 191	4 773 268	274 872	3 395	196 319	1	2		
		1997.. 451 362	4 321 560	255 169	2 887	196 193	X	X		
31191	Snack food mfg	1998.. 157 213	1 510 352	76 581	D	80 632	3	3		
		1997.. 143 401	1 264 536	67 725	D	75 676	X	X		
311911	Roasted nuts & peanut butter mfg	1998.. 28 624	341 716	20 962	D	7 662	4	5		
		1997.. 27 963	328 293	19 572	D	8 391	X	X		
311919	Other snack food mfg	1998.. 128 589	1 168 637	55 619	—	72 970	4	4		
		1997.. 115 438	936 243	48 153	—	67 285	X	X		
31192	Coffee & tea mfg	1998.. 46 932	490 596	28 052	—	18 880	1	1		
		1997.. 51 757	490 602	30 158	—	21 599	X	X		
311920	Coffee & tea mfg	1998.. 46 932	490 596	28 052	—	18 880	1	1		
		1997.. 51 757	490 602	30 158	—	21 599	X	X		
31193	Flavoring syrup & concentrate mfg	1998.. 18 340	166 995	11 597	—	6 744	1	1		
		1997.. 17 249	160 106	11 182	—	6 067	X	X		
311930	Flavoring syrup & concentrate mfg	1998.. 18 340	166 995	11 597	—	6 744	1	1		
		1997.. 17 249	160 106	11 182	—	6 067	X	X		
31194	Seasoning & dressing mfg	1998.. 69 205	792 242	47 552	D	21 653	1	2		
		1997.. 68 487	719 254	45 744	D	22 743	X	X		
311941	Mayonnaise, dressing, & other prepared sauce mfg	1998.. 41 909	484 175	28 070	D	13 839	1	2		
		1997.. 41 226	424 533	27 369	D	13 857	X	X		
311942	Spice & extract mfg	1998.. 27 296	308 067	19 482	—	7 814	2	5		
		1997.. 27 261	294 721	18 375	—	8 886	X	X		
31199	All other food mfg	1998.. 179 502	1 813 083	111 091	D	68 411	3	2		
		1997.. 170 468	1 687 062	100 360	D	70 108	X	X		
311991	Perishable prepared food mfg	1998.. 35 793	383 084	25 439	—	10 353	5	6		
		1997.. 35 369	391 330	24 334	—	11 035	X	X		
311999	All other miscellaneous food mfg	1998.. 143 709	1 429 999	85 652	D	58 057	4	2		
		1997.. 135 099	1 295 732	76 026	D	59 073	X	X		
312	Beverage & tobacco product mfg	1998.. 663 717	7 669 007	426 267	566 486	237 450	1	1		
		1997.. 678 036	7 653 355	421 779	598 347	256 257	X	X		
3121	Beverage mfg	1998.. 529 994	5 841 187	341 728	329 370	188 266	1	1		
		1997.. 540 528	5 694 351	333 856	319 828	206 672	X	X		
31211	Soft drink & ice mfg	1998.. 243 907	2 568 459	168 891	11 120	75 016	1	2		
		1997.. 234 438	2 506 882	160 930	—	73 508	X	X		
312111	Soft drink mfg	1998.. 199 537	1 977 757	129 416	11 120	70 121	1	3		
		1997.. 192 070	1 923 032	123 129	—	68 941	X	X		
312112	Bottled water mfg	1998.. 9 573	91 779	7 554	—	2 018	11	5		
		1997.. 7 394	72 097	5 698	—	1 696	X	X		
312113	Ice mfg	1998.. 34 974	498 924	31 920	—	2 877	1	1		
		1997.. 34 974	511 753	32 103	—	2 871	X	X		
31212	Breweries	1998.. 210 800	2 526 215	121 755	D	89 045	1	1		
		1997.. 227 346	2 468 063	120 319	D	107 027	X	X		
312120	Breweries	1998.. 210 800	2 526 215	121 755	D	89 045	1	1		
		1997.. 227 346	2 468 063	120 319	D	107 027	X	X		
31213	Wineries	1998.. 48 927	497 822	38 727	D	10 200	2	3		
		1997.. 51 374	479 657	40 233	D	11 141	X	X		
312130	Wineries	1998.. 48 927	497 822	38 727	D	10 200	2	3		
		1997.. 51 374	479 657	40 233	D	11 141	X	X		

See footnotes at end of table.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
312	Beverage & tobacco product mfg—Con.							
3121	Beverage mfg—Con.							
31214	Distilleries	1998.. 26 360	248 690	12 355	—	14 006	2	3
		1997.. 27 370	239 749	12 374	—	14 996	X	X
312140	Distilleries	1998.. 26 360	248 690	12 355	—	14 006	2	3
		1997.. 27 370	239 749	12 374	—	14 996	X	X
3122	Tobacco mfg	1998.. 133 723	1 827 821	84 539	237 116	49 184	1	1
		1997.. 137 508	1 959 004	87 923	278 519	49 585	X	X
31221	Tobacco stemming & redrying	1998.. 20 071	224 077	14 247	—	5 824	1	1
		1997.. 26 095	328 608	20 290	—	5 805	X	X
312210	Tobacco stemming & redrying	1998.. D	224 077	14 247	—	D	1	X
		1997.. D	328 608	20 290	—	D	X	X
31222	Tobacco product mfg	1998.. 113 652	1 603 744	70 292	237 116	43 360	1	1
		1997.. 111 413	1 630 396	67 633	278 519	43 780	X	X
312221	Cigarette mfg	1998.. 80 733	1 206 672	51 307	D	29 426	1	1
		1997.. 80 126	1 256 006	49 723	D	30 403	X	X
312229	Other tobacco product mfg	1998.. D	397 072	18 985	D	D	1	X
		1997.. D	374 390	17 910	D	D	X	X
313	Textile mills	1998.. 1 878 610	29 026 081	1 330 580	204 230	548 030	1	2
		1997.. 1 915 550	28 579 728	1 342 771	197 659	572 779	X	X
3131	Fiber, yarn, & thread mills	1998.. 437 460	9 299 454	397 297	D	40 163	1	2
		1997.. 431 186	8 830 910	392 277	D	38 909	X	X
31311	Fiber, yarn, & thread mills	1998.. 437 460	9 299 454	397 297	D	40 163	1	2
		1997.. 431 186	8 830 910	392 277	D	38 909	X	X
313111	Yarn spinning mills	1998.. 320 872	6 902 277	295 916	D	24 955	1	1
		1997.. 319 810	6 659 709	296 120	D	23 690	X	X
313112	Yarn texturing, throwing, & twisting mills	1998.. 98 678	2 107 440	86 935	—	11 743	3	5
		1997.. 95 220	1 933 223	83 335	—	11 885	X	X
313113	Thread mills	1998.. 17 911	289 737	14 446	—	3 465	1	1
		1997.. 16 156	237 978	12 822	—	3 334	X	X
3132	Fabric mills	1998.. 914 549	15 844 637	691 750	D	222 799	1	2
		1997.. 930 641	15 686 288	703 838	D	226 803	X	X
31321	Broadwoven fabric mills	1998.. 601 901	11 922 486	490 481	D	111 420	1	1
		1997.. 631 497	12 152 868	508 212	D	123 285	X	X
313210	Broadwoven fabric mills	1998.. 601 901	11 922 486	490 481	D	111 420	1	1
		1997.. 631 497	12 152 868	508 212	D	123 285	X	X
31322	Narrow fabric mills & schiffli machine embroidery	1998.. 34 204	443 244	26 519	D	7 685	3	3
		1997.. 34 825	443 562	26 944	D	7 881	X	X
313221	Narrow fabric mills	1998.. 31 543	412 915	24 285	D	7 258	3	3
		1997.. 31 277	407 632	24 393	D	6 884	X	X
313222	Schiffli machine embroidery	1998.. 2 661	30 330	2 235	—	426	6	10
		1997.. 3 548	35 930	2 551	—	997	X	X
31323	Nonwoven fabric mills	1998.. 115 410	1 990 527	83 370	—	32 041	1	2
		1997.. 115 066	1 566 832	81 765	—	33 301	X	X
313230	Nonwoven fabric mills	1998.. 115 410	1 990 527	83 370	—	32 041	1	2
		1997.. 115 066	1 566 832	81 765	—	33 301	X	X
31324	Knit fabric mills	1998.. 163 034	1 488 380	91 380	S	71 654	4	5
		1997.. 149 253	1 523 026	86 917	—	62 336	X	X
313241	Weft knit fabric mills	1998.. 98 144	858 286	53 196	S	44 948	7	7
		1997.. 84 096	875 240	47 922	—	36 174	X	X
313249	Other knit fabric & lace mills	1998.. 64 890	630 094	38 185	S	26 705	2	2
		1997.. 65 157	647 786	38 995	—	26 162	X	X
3133	Textile & fabric finishing & fabric coating mills	1998.. 526 601	3 881 990	241 533	166 194	285 068	3	3
		1997.. 553 723	4 062 530	246 656	173 205	307 067	X	X
31331	Textile & fabric finishing mills	1998.. 483 397	3 542 125	217 102	166 194	266 295	3	3
		1997.. 509 969	3 723 550	223 421	173 205	286 548	X	X
313311	Broadwoven fabric finishing mills	1998.. 323 401	2 304 809	143 302	166 194	180 099	4	4
		1997.. 352 345	2 310 846	145 785	173 205	206 560	X	X
313312	Textile & fabric finishing mills	1998.. 159 996	1 237 316	73 800	—	86 196	3	2
		1997.. 157 624	1 412 704	77 636	—	79 988	X	X
31332	Fabric coating mills	1998.. 43 203	339 865	24 431	—	18 772	8	6
		1997.. 43 754	338 980	23 235	—	20 519	X	X
313320	Fabric coating mills	1998.. 43 203	339 865	24 431	—	18 772	8	6
		1997.. 43 754	338 980	23 235	—	20 519	X	X
314	Textile product mills	1998.. 400 025	5 010 207	248 458	79 751	151 567	1	2
		1997.. 387 300	4 768 902	245 658	34 328	141 642	X	X
3141	Textile furnishings mills	1998.. 215 016	2 586 699	124 797	S	90 219	1	2
		1997.. 219 410	2 469 012	127 957	S	91 453	X	X
31411	Carpet & rug mills	1998.. 151 836	1 819 312	80 855	—	70 981	1	1
		1997.. 154 164	1 665 773	83 315	89	70 849	X	X
314110	Carpet & rug mills	1998.. 151 836	1 819 312	80 855	D	70 981	1	1
		1997.. 154 164	1 665 773	83 315	D	70 849	X	X
31412	Curtain & linen mills	1998.. 63 180	767 387	43 942	S	19 238	2	9
		1997.. 65 246	803 239	44 642	—	20 604	X	X
314121	Curtain & drapery mills	1998.. 12 240	125 884	8 307	—	3 934	8	13
		1997.. 11 300	116 731	7 800	—	3 500	X	X
314129	Other household textile product mills	1998.. 50 940	641 503	35 636	S	15 304	1	11
		1997.. 53 946	686 508	36 842	—	17 104	X	X
3149	Other textile product mills	1998.. 185 009	2 423 508	123 661	85 348	61 348	1	4
		1997.. 167 890	2 299 890	117 701	34 239	50 189	X	X
31491	Textile bag & canvas mills	1998.. 20 089	209 253	13 469	—	6 619	2	4
		1997.. 20 342	210 015	13 472	—	6 870	X	X
314911	Textile bag mills	1998.. 8 120	97 379	6 283	—	1 837	4	6
		1997.. 8 127	97 649	6 288	—	1 839	X	X
314912	Canvas & related product mills	1998.. 11 969	111 874	7 186	—	4 783	3	5
		1997.. 12 215	112 366	7 184	—	5 031	X	X

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			Purchased		Generated less sold (1,000 kWh)	C		E	
			Quantity (1,000 kWh)	Cost (\$1,000)					C
		A	B	C	D	E	C	E	
314	Textile product mills—Con.								
3149	Other textile product mills—Con.								
31499	All other textile product mills	1998.. 164 920	2 214 255	110 192	85 348	54 729	1	5	
		1997.. 147 548	2 089 875	104 229	34 239	43 319	X	X	
314991	Rope, cordage, & twine mills	1998.. 11 753	164 319	9 632	S	2 122	4	4	
		1997.. 13 407	191 758	11 115	—	2 292	X	X	
314992	Tire cord & tire fabric mills	1998.. 44 423	872 089	35 752	627	8 671	2	1	
		1997.. 42 440	813 485	33 780	—	8 660	X	X	
314999	All other miscellaneous textile product mills	1998.. 108 744	1 177 847	64 808	84 718	43 936	2	6	
		1997.. 91 701	1 084 632	59 334	34 239	32 367	X	X	
315	Apparel mfg	1998.. 663 068	6 920 657	470 803	1 110	192 265	1	1	
		1997.. 695 063	7 243 261	487 871	210	207 192	X	X	
3151	Apparel knitting mills	1998.. 141 476	1 759 573	97 228	134	44 249	2	3	
		1997.. 168 313	2 009 954	109 780	—	58 533	X	X	
31511	Hosiery & sock mills	1998.. 84 856	1 206 513	64 076	134	20 780	3	5	
		1997.. 87 139	1 180 016	63 642	—	23 497	X	X	
315111	Sheer hosiery mills	1998.. 31 580	473 787	25 051	—	6 529	1	1	
		1997.. 33 118	462 798	25 902	—	7 216	X	X	
315119	Other hosiery & sock mills	1998.. 53 276	732 725	39 024	134	14 251	4	7	
		1997.. 54 021	717 218	37 740	—	16 281	X	X	
31519	Other apparel knitting mills	1998.. 56 621	553 016	33 152	—	23 469	4	2	
		1997.. 81 174	829 938	46 138	—	35 036	X	X	
315191	Outerwear knitting mills	1998.. 48 535	444 083	27 988	—	20 546	3	2	
		1997.. 73 060	734 708	40 439	—	32 621	X	X	
315192	Underwear & nightwear knitting mills	1998.. 8 086	108 978	5 164	—	2 922	19	7	
		1997.. 8 114	95 230	5 699	—	2 415	X	X	
3152	Cut & sew apparel mfg	1998.. 482 539	4 761 161	345 568	D	136 971	2	1	
		1997.. 487 764	4 840 532	350 343	D	137 421	X	X	
31521	Cut & sew apparel contractors	1998.. 215 362	1 876 567	148 225	S	67 138	3	2	
		1997.. 227 327	2 033 908	163 745	—	63 582	X	X	
315211	Men's & boys' cut & sew apparel contractors ..	1998.. 41 459	445 553	25 396	—	16 063	7	1	
		1997.. 30 322	349 160	22 546	—	7 776	X	X	
315212	Women's, girls', & infants' cut & sew apparel contractors	1998.. 173 903	1 431 015	122 829	S	51 074	4	3	
		1997.. 197 005	1 684 748	141 199	—	55 806	X	X	
31522	Men's & boys' cut & sew apparel mfg	1998.. 123 256	1 543 021	92 293	D	30 963	1	1	
		1997.. 122 501	1 512 553	86 847	D	35 654	X	X	
315221	Men's & boys' cut & sew underwear & nightwear mfg	1998.. 5 301	55 861	3 260	—	2 041	1	1	
		1997.. 11 059	105 537	5 490	—	5 569	X	X	
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	1998.. 14 901	145 132	10 859	—	4 042	1	1	
		1997.. 16 118	150 192	11 542	—	4 576	X	X	
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	1998.. 28 822	356 172	23 321	D	5 501	2	3	
		1997.. 29 977	376 380	24 304	—	5 673	X	X	
315224	Men's & boys' cut & sew trouser, slack, & jean mfg	1998.. 45 863	555 289	33 394	—	12 469	1	2	
		1997.. 37 907	427 334	25 008	—	12 899	X	X	
315225	Men's & boys' cut & sew work clothing mfg	1998.. 16 276	188 089	12 434	—	3 842	1	2	
		1997.. 15 057	206 410	11 207	—	3 850	X	X	
315228	Men's & boys' cut & sew other outerwear mfg ..	1998.. 12 093	242 477	9 024	—	3 068	2	4	
		1997.. 12 383	246 700	9 296	—	3 087	X	X	
31523	Women's & girls' cut & sew apparel mfg	1998.. 130 974	1 186 157	94 553	—	36 421	2	3	
		1997.. 124 337	1 117 151	88 409	—	35 928	X	X	
315231	Women's & girls' cut/sew lingerie & nightwear mfg	1998.. 14 482	190 091	11 903	—	2 579	5	4	
		1997.. 15 795	213 303	13 340	—	2 455	X	X	
315232	Women's & girls' cut & sew blouse & shirt mfg	1998.. 21 866	180 083	15 351	—	6 516	6	5	
		1997.. 17 487	141 413	12 087	—	5 400	X	X	
315233	Women's & girls' cut & sew dress mfg	1998.. 22 569	190 378	17 557	—	5 013	6	10	
		1997.. 24 132	176 188	16 436	—	7 696	X	X	
315234	Women's & girls' cut & sew suit, coat, skirt mfg	1998.. 13 112	97 469	8 431	—	4 681	1	3	
		1997.. 13 891	108 461	9 132	—	4 759	X	X	
315239	Women's & girls' cut & sew other outerwear mfg	1998.. 58 945	528 136	41 312	D	17 633	4	5	
		1997.. 53 032	477 786	37 414	—	15 618	X	X	
31529	Other cut & sew apparel mfg	1998.. 12 946	155 416	10 496	D	2 450	10	5	
		1997.. 13 599	176 920	11 342	D	2 257	X	X	
315291	Infants' cut & sew apparel mfg	1998.. 4 973	74 300	4 397	D	576	1	1	
		1997.. 4 773	77 441	4 223	D	550	X	X	
315292	Fur & leather apparel mfg	1998.. 1 363	11 956	1 175	—	189	17	13	
		1997.. 1 555	13 818	1 376	—	179	X	X	
315299	All other cut & sew apparel mfg	1998.. 6 610	69 160	4 925	—	1 685	21	7	
		1997.. 7 271	85 661	5 743	—	1 528	X	X	
3159	Apparel accessories & other apparel mfg	1998.. 39 053	399 922	28 008	—	11 045	3	3	
		1997.. 38 986	392 775	27 748	—	11 238	X	X	
31599	Apparel accessories & other apparel mfg	1998.. 39 053	399 922	28 008	—	11 045	3	3	
		1997.. 38 986	392 775	27 748	—	11 238	X	X	
315991	Hat, cap, & millinery mfg	1998.. 10 205	105 927	7 257	—	2 947	2	2	
		1997.. 9 858	101 222	6 994	—	2 864	X	X	
315992	Glove & mitten mfg	1998.. 4 657	53 502	3 184	—	1 474	3	1	
		1997.. 4 573	49 517	3 091	—	1 482	X	X	
315993	Men's & boys' neckwear mfg	1998.. 2 732	22 232	1 814	—	918	2	8	
		1997.. 2 907	28 734	2 099	—	808	X	X	
315999	Other apparel accessories & other apparel mfg	1998.. 21 459	218 261	15 753	—	5 706	5	6	
		1997.. 21 648	213 302	15 564	—	6 084	X	X	

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			Purchased		Generated less sold (1,000 kWh)		C	E	
			Quantity (1,000 kWh)	Cost (\$1,000)					D
			A	B					
316	Leather & allied product mfg	1998.. 87 618 1997.. 94 163	877 691 943 466	59 581 62 679	943 1 419	28 038 31 484	2 X	2 X	
3161	Leather & hide tanning & finishing	1998.. 39 787 1997.. 42 629	353 859 379 156	22 482 22 884	D D	17 305 19 745	2 X	3 X	
31611	Leather & hide tanning & finishing	1998.. 39 787 1997.. 42 629	353 859 379 156	22 482 22 884	D D	17 305 19 745	2 X	3 X	
316110	Leather & hide tanning & finishing	1998.. 39 787 1997.. 42 629	353 859 379 156	22 482 22 884	D D	17 305 19 745	2 X	3 X	
3162	Footwear mfg	1998.. 26 712 1997.. 30 698	298 332 347 528	21 795 25 065	— D	4 918 5 633	4 X	7 X	
31621	Footwear mfg	1998.. 26 712 1997.. 30 698	298 332 347 528	21 795 25 065	D D	4 918 5 633	4 X	7 X	
316211	Rubber & plastics footwear mfg	1998.. D 1997.. D	92 079 103 079	6 808 7 460	D D	D D	X X	X X	
316212	House slipper mfg	1998.. D 1997.. D	24 157 23 947	1 689 1 806	D D	D D	X X	X X	
316213	Men's footwear (except athletic) mfg	1998.. 10 181 1997.. 12 431	131 126 155 559	9 251 10 870	— —	930 1 561	4 X	16 X	
316214	Women's footwear (except athletic) mfg	1998.. 2 838 1997.. 4 118	25 734 43 840	2 207 3 302	— —	631 816	38 X	5 X	
316219	Other footwear mfg	1998.. 2 452 1997.. 2 000	25 236 21 103	1 839 1 627	— —	612 373	8 X	45 X	
3169	Other leather & allied product mfg	1998.. 21 119 1997.. 20 836	225 500 216 782	15 304 14 730	D —	5 815 6 106	2 X	5 X	
31699	Other leather & allied product mfg	1998.. 21 119 1997.. 20 836	225 500 216 782	15 304 14 730	D —	5 815 6 106	2 X	5 X	
316991	Luggage mfg	1998.. 6 991 1997.. 7 216	86 265 85 852	5 539 5 656	— —	1 453 1 560	2 X	1 X	
316992	Women's handbag & purse mfg	1998.. 1 952 1997.. 2 086	13 762 12 047	1 220 1 145	— —	732 941	1 X	7 X	
316993	Personal leather good (except women's handbag & purse) mfg	1998.. 2 484 1997.. 2 191	24 402 22 752	1 871 1 627	D —	613 564	3 X	3 X	
316999	All other leather good mfg	1998.. 9 691 1997.. 9 343	101 071 96 131	6 674 6 302	— —	3 017 3 041	5 X	9 X	
321	Wood product mfg	1998.. 1 553 993 1997.. 1 519 336	22 609 341 21 984 980	1 127 044 1 101 988	621 889 578 072	426 949 417 348	1 X	1 X	
3211	Sawmills & wood preservation	1998.. 540 071 1997.. 522 316	7 378 832 7 139 485	388 380 374 120	505 896 446 243	151 691 149 196	1 X	2 X	
32111	Sawmills & wood preservation	1998.. 540 071 1997.. 522 316	7 378 832 7 139 485	388 380 374 120	505 896 446 243	151 691 149 196	1 X	2 X	
321113	Sawmills	1998.. 501 780 1997.. 483 363	7 038 943 6 807 285	369 206 355 175	505 896 446 243	132 574 128 188	1 X	2 X	
321114	Wood preservation	1998.. 38 291 1997.. 38 953	339 889 332 200	19 174 18 945	— —	19 118 20 008	2 X	4 X	
3212	Veneer, plywood, & engineered wood product mfg	1998.. 607 117 1997.. 605 371	9 741 353 9 588 013	423 828 427 623	94 765 112 696	183 289 177 748	1 X	1 X	
32121	Veneer, plywood, & engineered wood product mfg	1998.. 607 117 1997.. 605 371	9 741 353 9 588 013	423 828 427 623	94 765 112 696	183 289 177 748	1 X	1 X	
321211	Hardwood veneer & plywood mfg	1998.. 54 000 1997.. 51 648	745 299 709 894	39 513 38 282	D D	14 487 13 366	1 X	3 X	
321212	Softwood veneer & plywood mfg	1998.. 160 404 1997.. 160 849	2 770 415 2 773 349	116 386 118 934	D D	44 018 41 915	1 X	3 X	
321213	Engineered wood member (except truss) mfg ..	1998.. 22 193 1997.. 22 279	411 121 390 998	17 964 18 052	— —	4 228 4 227	1 X	6 X	
321214	Truss mfg	1998.. 22 303 1997.. 19 601	240 566 204 067	14 267 12 377	— —	8 036 7 224	4 X	5 X	
321219	Reconstituted wood product mfg	1998.. 348 218 1997.. 350 994	5 573 952 5 509 705	235 698 239 978	D D	112 520 111 016	1 X	1 X	
3219	Other wood product mfg	1998.. 406 805 1997.. 391 649	5 489 156 5 257 482	314 837 300 245	21 228 19 133	91 968 91 404	1 X	2 X	
32191	Millwork	1998.. 223 204 1997.. 216 036	3 333 094 3 203 064	181 672 173 247	D D	41 532 42 789	1 X	3 X	
321911	Wood window & door mfg	1998.. 76 621 1997.. 73 362	1 148 516 1 088 489	61 581 57 868	— —	15 041 15 494	1 X	2 X	
321912	Cut stock, resawing lumber, & planing	1998.. 89 616 1997.. 86 835	1 253 203 1 200 206	70 775 67 416	D D	18 842 19 419	2 X	6 X	
321918	Other millwork (including flooring)	1998.. 56 966 1997.. 55 839	931 375 914 369	49 316 47 963	D D	7 650 7 876	2 X	6 X	
32192	Wood container & pallet mfg	1998.. 69 708 1997.. 66 487	795 483 769 189	49 128 47 365	S S	20 580 19 122	1 X	3 X	
321920	Wood container & pallet mfg	1998.. 69 708 1997.. 66 487	795 483 769 189	49 128 47 365	S S	20 580 19 122	1 X	3 X	
32199	All other wood product mfg	1998.. 113 893 1997.. 109 126	1 360 579 1 285 229	84 037 79 633	D D	29 856 29 493	1 X	4 X	
321991	Manufactured home (mobile home) mfg	1998.. 32 325 1997.. 30 645	391 821 356 537	25 218 23 292	— —	7 107 7 353	1 X	2 X	
321992	Prefabricated wood building mfg	1998.. 15 933 1997.. 14 166	161 351 148 490	9 977 9 143	— —	5 957 5 023	5 X	13 X	
321999	All other miscellaneous wood product mfg	1998.. 65 635 1997.. 64 315	807 408 780 202	48 842 47 198	D D	16 792 17 117	1 X	4 X	

See footnotes at end of table.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
322	Paper mfg.....	1998.. 5 952 194	69 901 800	2 907 821	45 925 836	3 044 373	1	1
		1997.. 6 279 346	70 046 911	2 913 183	44 897 971	3 366 163	X	X
3221	Pulp, paper, & paperboard mills	1998.. 4 924 877	57 932 389	2 198 431	45 592 150	2 726 446	1	1
		1997.. 5 270 373	58 605 851	2 231 537	44 899 042	3 038 836	X	X
32211	Pulp mills	1998.. 260 103	2 387 430	96 677	3 136 396	163 426	1	1
		1997.. 283 543	2 176 854	92 758	3 464 668	190 785	X	X
322110	Pulp mills	1998.. 260 103	2 387 430	96 677	3 136 396	163 426	1	1
		1997.. 283 543	2 176 854	92 758	3 464 668	190 785	X	X
32212	Paper mills	1998.. 2 889 642	37 233 894	1 403 240	26 149 139	1 486 402	1	1
		1997.. 3 157 859	38 134 835	1 453 904	24 991 505	1 703 955	X	X
322121	Paper (except newsprint) mills	1998.. 2 318 568	25 556 555	1 021 254	21 936 666	1 297 314	2	1
		1997.. 2 551 083	26 123 331	1 066 663	20 803 690	1 484 420	X	X
322122	Newsprint mills	1998.. 571 074	11 677 338	381 986	4 212 473	189 088	3	1
		1997.. 606 776	12 011 504	387 241	4 187 815	219 535	X	X
32213	Paperboard mills	1998.. 1 775 132	18 311 066	698 514	16 306 615	1 076 618	1	1
		1997.. 1 828 971	18 294 162	684 875	16 442 869	1 144 096	X	X
322130	Paperboard mills	1998.. 1 775 132	18 311 066	698 514	16 306 615	1 076 618	1	1
		1997.. 1 828 971	18 294 162	684 875	16 442 869	1 144 096	X	X
3222	Converted paper product mfg	1998.. 1 027 317	11 969 411	709 390	333 686	317 927	1	2
		1997.. 1 008 973	11 441 060	681 646	S	327 327	X	X
32221	Paperboard container mfg	1998.. 553 306	6 212 750	385 946	D	167 360	1	3
		1997.. 544 665	5 855 982	360 915	D	183 750	X	X
322211	Corrugated & solid fiber box mfg	1998.. 363 101	3 641 831	230 592	D	132 509	2	3
		1997.. 358 483	3 437 948	215 577	D	142 906	X	X
322212	Folding paperboard box mfg	1998.. 114 057	1 473 806	91 066	-	22 992	1	2
		1997.. 110 323	1 377 592	86 299	-	24 024	X	X
322213	Setup paperboard box mfg	1998.. S	S	S	S	S	X	X
		1997.. 7 759	74 509	5 113	-	2 646	X	X
322214	Fiber can, tube, drum, & similar products mfg ..	1998.. 23 068	271 419	17 110	D	5 959	2	3
		1997.. 23 478	265 581	17 031	D	6 447	X	X
322215	Nonfolding sanitary food container mfg	1998.. 44 263	686 146	36 762	-	7 501	1	2
		1997.. 44 622	700 352	36 895	-	7 727	X	X
32222	Paper bag & coated & treated paper mfg	1998.. 259 470	2 814 621	156 748	D	102 722	1	2
		1997.. 257 510	2 795 816	157 522	D	99 988	X	X
322221	Coated & laminated packaging paper & plastics film mfg	1998.. 21 648	258 325	15 003	-	6 645	7	25
		1997.. 22 854	271 509	15 914	-	6 940	X	X
322222	Coated & laminated paper mfg	1998.. 171 259	1 680 724	93 288	D	77 971	1	1
		1997.. 166 791	1 667 901	93 159	D	73 632	X	X
322223	Plastics, foil, & coated paper bag mfg	1998.. 5 504	57 660	4 224	-	1 279	2	7
		1997.. 5 559	60 691	4 302	-	1 257	X	X
322224	Uncoated paper & multiwall bag mfg	1998.. 28 737	419 617	22 279	-	6 458	1	1
		1997.. 28 813	415 384	22 289	-	6 524	X	X
322225	Laminated aluminum foil mfg for flexible packaging uses	1998.. 20 612	245 504	13 410	-	7 202	3	1
		1997.. 22 192	227 662	13 164	-	9 028	X	X
322226	Surface-coated paperboard mfg	1998.. 11 709	152 792	8 543	-	3 166	1	6
		1997.. 11 301	152 669	8 694	-	2 607	X	X
32223	Stationery product mfg	1998.. 72 724	911 211	57 446	S	15 278	8	17
		1997.. 73 592	964 641	64 182	-	9 410	X	X
322231	Die-cut paper & paperboard office supplies mfg	1998.. 13 863	183 641	11 508	S	2 355	1	6
		1997.. 12 840	158 382	10 474	-	2 366	X	X
322232	Envelope mfg	1998.. 47 589	581 807	36 862	-	10 727	11	25
		1997.. 49 256	663 894	44 645	-	4 611	X	X
322233	Stationery, tablet, & related product mfg	1998.. 11 272	145 762	9 076	-	2 196	10	7
		1997.. 11 496	142 365	9 063	-	2 433	X	X
32229	Other converted paper product mfg	1998.. 141 816	2 030 829	109 250	S	32 567	1	3
		1997.. 133 206	1 824 621	99 027	S	34 179	X	X
322291	Sanitary paper product mfg	1998.. 63 009	1 205 688	57 584	S	5 424	1	18
		1997.. 65 433	1 103 159	53 954	S	11 479	X	X
322299	All other converted paper product mfg	1998.. 78 808	825 140	51 665	S	27 142	2	2
		1997.. 67 773	721 462	45 073	S	22 700	X	X
323	Printing & related support activities	1998.. 1 184 005	14 865 992	916 458	S	267 547	2	2
		1997.. 1 137 258	14 335 848	866 359	S	270 899	X	X
3231	Printing & related support activities	1998.. 1 184 005	14 865 992	916 458	S	267 547	2	2
		1997.. 1 137 258	14 335 848	866 359	S	270 899	X	X
32311	Printing	1998.. 1 105 835	13 860 867	853 068	S	252 768	2	2
		1997.. 1 062 647	13 389 568	807 200	S	255 447	X	X
323110	Commercial lithographic printing	1998.. 634 655	8 018 600	493 068	S	141 588	1	4
		1997.. 620 753	7 764 365	476 438	S	144 315	X	X
323111	Commercial gravure printing	1998.. 95 110	1 332 274	64 879	-	30 231	1	3
		1997.. 88 143	1 261 106	60 272	-	27 871	X	X
323112	Commercial flexographic printing	1998.. 60 612	669 093	49 848	-	10 765	25	6
		1997.. 43 265	537 142	33 854	-	9 411	X	X
323113	Commercial screen printing	1998.. 72 323	786 496	52 151	-	20 172	7	9
		1997.. 75 444	769 655	51 610	-	23 834	X	X
323114	Quick printing	1998.. 43 521	490 208	33 826	-	9 695	13	6
		1997.. 37 039	417 882	27 644	-	9 395	X	X
323115	Digital printing	1998.. 3 989	41 643	2 883	-	1 106	1	13
		1997.. 3 445	38 356	2 592	-	853	X	X
323116	Manifold business form printing	1998.. 70 901	897 814	57 642	-	13 259	4	2
		1997.. 73 321	1 005 998	59 674	-	13 647	X	X
323117	Book printing	1998.. 71 823	1 030 206	57 325	-	14 497	2	5
		1997.. 70 837	1 028 152	55 516	-	15 321	X	X
323118	Blankbook, looseleaf binder, & device mfg	1998.. 18 246	223 932	15 329	-	2 918	3	4
		1997.. 17 726	214 388	14 821	-	2 905	X	X
323119	Other commercial printing	1998.. 34 656	370 601	26 118	-	8 538	6	8
		1997.. 32 674	352 524	24 779	-	7 895	X	X
32312	Support activities for printing	1998.. 78 170	1 005 126	63 390	-	14 780	3	4
		1997.. 74 611	946 280	59 159	-	15 452	X	X
323121	Tradebinding & related work	1998.. 29 969	440 719	23 553	-	6 416	5	3
		1997.. 27 046	395 034	20 584	-	6 462	X	X
323122	Prepress services	1998.. 48 201	564 407	39 837	-	8 363	3	6
		1997.. 47 565	551 246	38 575	-	8 990	X	X

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Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy				Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—		
			A	Purchased		Generated less sold (1,000 kWh)		E	C	E
				Quantity (1,000 kWh)	Cost (\$1,000)					
				B	C					
324	Petroleum & coal products mfg	1998.. 4 351 834 1997.. 4 712 871	33 466 883 39 999 314	1 450 536 1 910 305	13 973 610 9 087 663	2 901 298 2 802 566	1 X	1 X		
3241	Petroleum & coal products mfg	1998.. 4 351 834 1997.. 4 712 871	33 466 883 39 999 314	1 450 536 1 910 305	13 973 610 9 087 663	2 901 298 2 802 566	1 X	1 X		
32411	Petroleum refineries	1998.. 3 820 979 1997.. 4 181 276	30 353 671 37 019 576	1 257 251 1 725 681	13 837 013 8 940 712	2 563 727 2 455 595	1 X	1 X		
324110	Petroleum refineries	1998.. 3 820 979 1997.. 4 181 276	30 353 671 37 019 576	1 257 251 1 725 681	13 837 013 8 940 712	2 563 727 2 455 595	1 X	1 X		
32412	Asphalt paving, roofing, & saturated materials mfg	1998.. 428 368 1997.. 406 264	2 284 608 2 187 621	149 418 140 526	D D	278 950 265 738	2 X	2 X		
324121	Asphalt paving mixture & block mfg	1998.. 331 462 1997.. 309 450	1 443 217 1 364 269	103 878 96 297	D D	227 584 213 153	3 X	2 X		
324122	Asphalt shingle & coating materials mfg	1998.. 96 906 1997.. 96 814	841 391 823 352	45 539 44 229	D D	51 367 52 585	1 X	2 X		
32419	Other petroleum & coal products mfg	1998.. 102 488 1997.. 125 331	828 604 792 117	43 867 44 098	D D	58 621 81 233	2 X	1 X		
324191	Petroleum lubricating oil & grease mfg	1998.. 59 499 1997.. 56 287	456 192 389 532	25 546 25 598	— —	33 952 30 689	2 X	2 X		
324199	All other petroleum & coal products mfg	1998.. 42 989 1997.. 69 044	372 412 402 585	18 320 18 500	D D	24 668 50 544	4 X	1 X		
325	Chemical mfg	1998.. 11 453 751 1997.. 11 733 297	152 662 449 157 146 587	5 925 871 5 882 408	32 657 444 27 063 899	5 527 880 5 850 889	1 X	1 X		
3251	Basic chemical mfg	1998.. 6 473 786 1997.. 6 774 699	94 599 236 101 813 042	3 290 875 3 304 021	18 746 540 15 925 121	3 182 910 3 470 678	1 X	1 X		
32511	Petrochemical mfg	1998.. 937 018 1997.. 987 936	4 875 607 3 887 828	186 490 161 955	1 259 816 1 745 783	750 528 825 981	1 X	1 X		
325110	Petrochemical mfg	1998.. 937 018 1997.. 987 936	4 875 607 3 887 828	186 490 161 955	1 259 816 1 745 783	750 528 825 981	1 X	1 X		
32512	Industrial gas mfg	1998.. 947 231 1997.. 884 790	19 392 691 18 798 818	746 930 704 025	— —	200 301 180 765	1 X	1 X		
325120	Industrial gas mfg	1998.. 947 231 1997.. 884 790	19 392 691 18 798 818	746 930 704 025	— —	200 301 180 765	1 X	1 X		
32513	Dye & pigment mfg	1998.. 256 318 1997.. 260 973	3 032 616 3 334 870	131 658 132 207	— —	124 660 128 766	1 X	1 X		
325131	Inorganic dye & pigment mfg	1998.. 188 941 1997.. 189 576	2 391 965 2 499 402	95 421 93 919	— —	93 520 95 657	1 X	1 X		
325132	Synthetic organic dye & pigment mfg	1998.. 67 376 1997.. 71 397	640 651 835 468	36 237 38 288	— —	31 140 33 109	1 X	1 X		
32518	Other basic inorganic chemical mfg	1998.. 1 692 990 1997.. 1 738 071	41 935 873 49 442 988	1 232 615 1 307 396	3 993 897 3 304 377	460 375 430 675	1 X	3 X		
325181	Alkalies & chlorine mfg	1998.. 495 842 1997.. 527 228	10 606 303 12 638 258	365 011 382 104	D D	130 831 145 124	1 X	1 X		
325182	Carbon black mfg	1998.. D 1997.. D	719 348 653 103	32 982 30 755	D D	D D	5 X	X X		
325188	All other basic inorganic chemical mfg	1998.. D 1997.. D	30 610 222 36 151 627	834 621 894 537	913 765 52 199	D D	1 X	X X		
32519	Other basic organic chemical mfg	1998.. 2 640 230 1997.. 2 902 929	25 362 449 26 348 538	993 183 998 438	13 492 827 10 874 961	1 647 047 1 904 491	1 X	1 X		
325191	Gum & wood chemical mfg	1998.. 26 650 1997.. 26 733	232 910 220 467	9 777 9 464	— —	16 872 17 269	2 X	1 X		
325192	Cyclic crude & intermediate mfg	1998.. 264 538 1997.. 300 375	3 300 111 3 243 433	117 984 129 212	287 764 319 652	146 554 171 163	1 X	1 X		
325193	Ethyl alcohol mfg	1998.. 84 013 1997.. 105 639	381 123 440 986	16 414 20 657	514 526 498 762	67 600 84 982	11 X	20 X		
325199	All other basic organic chemical mfg	1998.. 2 285 029 1997.. 2 470 182	21 448 305 22 443 652	849 008 839 105	12 690 537 10 056 547	1 416 021 1 631 077	1 X	1 X		
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	1998.. 2 227 848 1997.. 2 239 185	28 035 130 27 128 317	1 074 545 1 069 703	9 528 667 7 230 261	1 153 304 1 169 482	1 X	1 X		
32521	Resin & synthetic rubber mfg	1998.. 1 729 060 1997.. 1 744 338	20 691 032 19 926 966	809 572 798 841	8 249 648 5 699 008	919 488 945 497	1 X	1 X		
325211	Plastics material & resin mfg	1998.. 1 536 019 1997.. 1 523 072	18 877 888 18 018 300	732 008 713 974	8 117 368 5 538 492	804 011 809 098	1 X	1 X		
325212	Synthetic rubber mfg	1998.. 193 041 1997.. 221 266	1 813 144 1 908 666	77 564 84 867	132 280 160 516	115 477 136 399	1 X	1 X		
32522	Artificial & synthetic fibers & filaments mfg	1998.. 498 788 1997.. 494 847	7 344 098 7 201 351	264 973 270 862	D D	233 815 223 985	1 X	1 X		
325221	Cellulosic organic fiber mfg	1998.. D 1997.. D	380 128 411 544	13 260 13 713	D D	D D	1 X	X X		
325222	Noncellulosic organic fiber mfg	1998.. D 1997.. D	6 963 970 6 789 807	251 713 257 149	D D	D D	1 X	1 X		
3253	Pesticide, fertilizer, & other agricultural chemical mfg	1998.. 805 701 1997.. 810 885	7 952 333 7 651 813	311 272 325 257	2 358 863 2 200 482	494 429 485 628	5 X	2 X		
32531	Fertilizer mfg	1998.. 653 162 1997.. 673 761	6 356 618 6 090 380	236 169 254 708	2 327 388 2 164 618	416 993 419 053	7 X	2 X		
325311	Nitrogenous fertilizer mfg	1998.. 503 302 1997.. 500 292	3 974 218 3 330 733	131 833 131 992	477 455 442 801	371 468 368 300	12 X	2 X		
325312	Phosphatic fertilizer mfg	1998.. 119 527 1997.. 142 899	2 079 001 2 462 928	86 813 105 399	1 849 933 1 721 817	32 714 37 500	1 X	4 X		
325314	Fertilizer (mixing only) mfg	1998.. 30 333 1997.. 30 570	303 399 296 719	17 522 17 317	— —	12 811 13 253	4 X	4 X		
32532	Pesticide & other agricultural chemical mfg	1998.. 152 539 1997.. 137 124	1 595 715 1 561 433	75 104 70 549	31 475 35 864	77 436 66 575	1 X	1 X		
325320	Pesticide & other agricultural chemical mfg	1998.. 152 539 1997.. 137 124	1 595 715 1 561 433	75 104 70 549	31 475 35 864	77 436 66 575	1 X	1 X		

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			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
325	Chemical mfg—Con.							
3254	Pharmaceutical & medicine mfg	1998.. 794 770	9 489 442	529 588	629 990	265 183	1	1
		1997.. 770 133	8 659 449	491 916	657 851	278 217	X	X
32541	Pharmaceutical & medicine mfg	1998.. 794 770	9 489 442	529 588	629 990	265 183	1	1
		1997.. 770 133	8 659 449	491 916	657 851	278 217	X	X
325411	Medicinal & botanical mfg	1998.. 217 233	2 526 412	132 371	D	84 862	1	1
		1997.. 189 401	2 109 080	107 240	D	82 161	X	X
325412	Pharmaceutical preparation mfg	1998.. 412 421	4 721 010	277 639	402 169	134 782	1	1
		1997.. 423 400	4 445 998	274 501	426 958	148 899	X	X
325413	In-vitro diagnostic substance mfg	1998.. 77 641	1 036 305	60 896	—	16 745	4	2
		1997.. 72 765	978 321	57 072	—	15 693	X	X
325414	Biological product (except diagnostic) mfg	1998.. 87 476	1 205 714	58 682	D	28 794	1	1
		1997.. 84 567	1 126 050	53 103	D	31 464	X	X
3255	Paint, coating, & adhesive mfg	1998.. 228 301	2 480 842	162 015	D	66 286	1	3
		1997.. 219 027	2 340 694	150 655	D	68 372	X	X
32551	Paint & coating mfg	1998.. 134 960	1 499 247	95 697	D	39 264	2	4
		1997.. 129 922	1 419 909	89 516	D	40 406	X	X
325510	Paint & coating mfg	1998.. 134 960	1 499 247	95 697	D	39 264	2	4
		1997.. 129 922	1 419 909	89 516	S	40 406	X	X
32552	Adhesive mfg	1998.. 93 341	981 595	66 319	—	27 022	2	3
		1997.. 89 105	920 785	61 139	962	27 966	X	X
325520	Adhesive mfg	1998.. 93 341	981 595	66 319	—	27 022	2	3
		1997.. 89 105	920 785	61 139	962	27 966	X	X
3256	Soap, cleaning compound, & toilet preparation mfg	1998.. 370 840	3 985 978	223 645	D	147 194	1	1
		1997.. 380 179	3 796 654	218 100	D	162 079	X	X
32561	Soap & cleaning compound mfg	1998.. 269 129	2 791 773	145 969	D	123 160	1	1
		1997.. 285 088	2 743 732	144 482	D	140 606	X	X
325611	Soap & other detergent mfg	1998.. 103 542	1 120 069	60 762	D	40 762	2	2
		1997.. 100 950	1 096 845	57 745	D	43 205	X	X
325612	Polish & other sanitation good mfg	1998.. 40 918	433 016	27 869	—	13 049	2	2
		1997.. 41 772	458 663	28 361	—	13 411	X	X
325613	Surface active agent mfg	1998.. 124 670	1 238 688	57 338	—	67 332	1	1
		1997.. 142 366	1 188 224	58 376	—	83 990	X	X
32562	Toilet preparation mfg	1998.. 101 711	1 194 204	77 677	—	24 034	2	4
		1997.. 95 091	1 052 922	73 618	—	21 473	X	X
325620	Toilet preparation mfg	1998.. 101 711	1 194 204	77 677	—	24 034	2	4
		1997.. 95 091	1 052 922	73 618	—	21 473	X	X
3259	Other chemical product mfg	1998.. 552 504	6 119 488	333 931	1 044 864	218 573	1	1
		1997.. 539 189	5 756 618	322 756	1 017 915	216 433	X	X
32591	Printing ink mfg	1998.. 28 873	340 014	23 716	—	5 158	7	7
		1997.. 27 653	325 456	22 070	—	5 583	X	X
325910	Printing ink mfg	1998.. 28 873	340 014	23 716	—	5 158	7	7
		1997.. 27 653	325 456	22 070	—	5 583	X	X
32592	Explosives mfg	1998.. 27 576	255 612	13 214	45 606	14 363	1	1
		1997.. 28 719	267 481	13 332	41 940	15 387	X	X
325920	Explosives mfg	1998.. 27 576	255 612	13 214	45 606	14 363	1	1
		1997.. 28 719	267 481	13 332	41 940	15 387	X	X
32599	All other chemical product & preparation mfg	1998.. 496 055	5 523 863	297 001	999 258	199 053	1	1
		1997.. 482 817	5 163 681	287 354	975 975	195 463	X	X
325991	Custom compounding of purchased resin	1998.. 142 771	1 925 253	114 977	—	27 794	2	2
		1997.. 132 790	1 713 938	106 277	—	26 513	X	X
325992	Photographic film, paper, plate, & chemical mfg	1998.. 136 024	1 509 135	75 548	924 179	60 476	1	1
		1997.. 139 601	1 523 939	78 201	938 066	61 400	X	X
325998	All other miscellaneous chemical product & preparation mfg	1998.. 217 260	2 089 475	106 477	75 079	110 783	1	1
		1997.. 210 426	1 925 804	102 876	37 909	107 550	X	X
326	Plastics & rubber products mfg	1998.. 3 351 848	50 421 741	2 769 843	60 409	582 006	1	1
		1997.. 3 364 649	50 327 995	2 739 003	54 370	625 646	X	X
3261	Plastics product mfg	1998.. 2 707 416	40 743 740	2 306 940	D	400 476	1	1
		1997.. 2 716 583	40 651 681	2 284 044	D	432 539	X	X
32611	Unsupported plastics film, sheet, & bag mfg	1998.. 550 444	8 713 564	453 422	D	97 022	1	2
		1997.. 550 560	9 041 361	451 411	D	99 149	X	X
326111	Unsupported plastics bag mfg	1998.. 156 495	2 435 056	137 484	D	19 011	2	1
		1997.. 151 396	2 632 269	134 518	D	16 878	X	X
326112	Unsupported plastics packaging film & sheet mfg	1998.. 59 037	1 012 848	46 071	—	12 966	3	7
		1997.. 60 750	943 043	45 087	—	15 663	X	X
326113	Unsupported plastics film & sheet (except packaging) mfg	1998.. 334 912	5 265 660	269 867	D	65 045	1	3
		1997.. 338 414	5 466 049	271 806	D	66 608	X	X
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg	1998.. 201 751	3 267 673	180 282	—	21 469	2	4
		1997.. 221 958	3 573 493	199 075	—	22 883	X	X
326121	Unsupported plastics profile shape mfg	1998.. 94 274	1 358 303	79 208	—	15 066	2	5
		1997.. 103 405	1 487 070	87 384	—	16 021	X	X
326122	Plastics pipe & pipe fitting mfg	1998.. 107 477	1 909 370	101 074	—	6 404	3	5
		1997.. 118 553	2 086 423	111 691	—	6 862	X	X
32613	Laminated plastics plate, sheet, & shape mfg	1998.. 49 416	556 079	31 085	—	18 331	1	3
		1997.. 55 649	605 656	33 894	—	21 755	X	X
326130	Laminated plastics plate, sheet, & shape mfg	1998.. 49 416	556 079	31 085	—	18 331	1	3
		1997.. 55 649	605 656	33 894	—	21 755	X	X
32614	Polystyrene foam product mfg	1998.. 130 547	1 712 435	88 653	D	41 894	1	4
		1997.. 142 314	1 620 249	87 170	D	55 144	X	X
326140	Polystyrene foam product mfg	1998.. 130 547	1 712 435	88 653	D	41 894	1	4
		1997.. 142 314	1 620 249	87 170	D	55 144	X	X
32615	Urethane & other foam product (except polystyrene) mfg	1998.. 84 250	1 022 776	63 575	—	20 676	3	3
		1997.. 85 304	1 003 605	63 862	—	21 442	X	X
326150	Urethane & other foam product (except polystyrene) mfg	1998.. 84 250	1 022 776	63 575	—	20 676	3	3
		1997.. 85 304	1 003 605	63 862	—	21 442	X	X

See footnotes at end of table.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
326	Plastics & rubber products mfg—Con.							
3261	Plastics product mfg—Con.							
32616	Plastics bottle mfg	1998.. 269 977	4 645 843	259 670	—	10 307	4	5
		1997.. 242 648	4 234 688	232 833	S	9 815	X	X
326160	Plastics bottle mfg	1998.. 269 977	4 645 843	259 670	—	10 307	4	5
		1997.. 242 648	4 234 688	232 833	S	9 815	X	X
32619	Other plastics product mfg	1998.. 1 421 030	20 825 369	1 230 253	34 082	190 777	1	1
		1997.. 1 418 150	20 572 629	1 215 799	28 054	202 351	X	X
326191	Plastics plumbing fixture mfg	1998.. 24 218	282 605	17 034	—	6 184	3	6
		1997.. 23 565	272 664	17 482	—	6 083	X	X
326192	Resilient floor covering mfg	1998.. 41 282	462 377	30 666	—	10 616	1	1
		1997.. 40 106	435 896	29 393	—	10 713	X	X
326199	All other plastics product mfg	1998.. 1 355 531	20 080 387	1 181 554	34 082	173 977	1	2
		1997.. 1 354 479	19 864 069	1 168 924	28 054	185 555	X	X
3262	Rubber product mfg	1998.. 644 432	9 678 001	462 903	D	181 529	X	2
		1997.. 648 066	9 676 314	454 959	D	193 107	X	X
32621	Tire mfg	1998.. 281 723	4 909 583	197 414	—	84 309	1	2
		1997.. 283 557	4 856 359	193 812	S	89 745	X	X
326211	Tire mfg (except retreading)	1998.. 268 146	4 739 542	187 464	—	80 682	1	2
		1997.. 269 859	4 708 327	183 793	S	86 066	X	X
326212	Tire retreading	1998.. 13 577	170 041	9 950	—	3 627	6	14
		1997.. 13 698	148 032	10 019	—	3 679	X	X
32622	Rubber & plastics hoses & belting mfg	1998.. 65 861	898 835	46 107	—	19 754	1	5
		1997.. 69 087	880 486	46 671	—	22 416	X	X
326220	Rubber & plastics hoses & belting mfg	1998.. 65 861	898 835	46 107	—	19 754	1	5
		1997.. 69 087	880 486	46 671	—	22 416	X	X
32629	Other rubber product mfg	1998.. 296 848	3 869 583	219 382	D	77 466	1	3
		1997.. 295 422	3 939 469	214 476	D	80 946	X	X
326291	Rubber product mfg for mechanical use	1998.. 139 784	1 948 765	107 655	D	32 129	1	2
		1997.. 133 531	1 856 841	101 070	D	32 461	X	X
326299	All other rubber product mfg	1998.. 157 064	1 920 818	111 726	D	45 338	1	4
		1997.. 161 891	2 082 628	113 406	D	48 485	X	X
327	Nonmetallic mineral product mfg	1998.. 4 110 621	38 951 254	1 881 221	296 290	2 229 400	1	1
		1997.. 4 057 617	37 726 163	1 819 994	218 575	2 237 623	X	X
3271	Clay product & refractory mfg	1998.. 416 262	3 033 139	176 402	D	239 861	2	3
		1997.. 431 071	3 048 346	174 896	D	256 175	X	X
32711	Pottery, ceramics, & plumbing fixture mfg	1998.. 132 169	1 086 926	66 618	D	65 551	2	1
		1997.. 126 441	1 061 005	61 866	D	64 575	X	X
327111	Vitreous china plumbing fixture & bathroom accessories mfg	1998.. 39 582	302 476	15 814	D	23 768	1	1
		1997.. 39 446	298 504	14 874	D	24 572	X	X
327112	Vitreous china, fine earthenware, & other pottery product mfg	1998.. 45 788	340 865	21 204	D	24 584	1	1
		1997.. 44 378	350 382	20 582	D	23 796	X	X
327113	Porcelain electrical supply mfg	1998.. 46 799	443 585	29 600	—	17 199	4	3
		1997.. 42 617	412 119	26 410	—	16 207	X	X
32712	Clay building material & refractories mfg	1998.. 284 093	1 946 213	109 783	D	174 310	3	4
		1997.. 304 630	1 987 341	113 030	D	191 600	X	X
327121	Brick & structural clay tile mfg	1998.. 152 118	898 241	47 982	D	104 136	7	6
		1997.. 170 057	919 902	51 623	D	118 434	X	X
327122	Ceramic wall & floor tile mfg	1998.. 37 996	284 534	15 613	—	22 383	2	6
		1997.. 41 268	293 200	16 079	—	25 189	X	1
327123	Other structural clay product mfg	1998.. 9 706	50 206	3 550	—	6 156	1	1
		1997.. 8 884	45 614	3 240	—	5 644	X	X
327124	Clay refractory mfg	1998.. 31 607	193 598	12 234	—	19 373	3	5
		1997.. 30 954	196 997	12 174	—	18 780	X	X
327125	Nonclay refractory mfg	1998.. 52 666	519 634	30 405	—	22 261	4	1
		1997.. 53 467	531 628	29 914	—	23 553	X	X
3272	Glass & glass product mfg	1998.. 1 096 537	12 122 956	535 449	—	561 088	1	1
		1997.. 1 106 075	11 759 040	530 271	—	575 804	X	X
32721	Glass & glass product mfg	1998.. 1 096 537	12 122 956	535 449	—	561 088	1	1
		1997.. 1 106 075	11 759 040	530 271	—	575 804	X	X
327211	Flat glass mfg	1998.. 216 703	1 603 211	73 640	—	143 063	1	1
		1997.. 220 466	1 602 433	72 857	—	147 609	X	X
327212	Other pressed & blown glass & glassware mfg	1998.. 347 612	3 958 900	166 983	—	180 629	1	1
		1997.. 346 419	3 849 090	166 233	—	180 186	X	X
327213	Glass container mfg	1998.. 351 252	3 850 861	158 871	—	192 381	1	1
		1997.. 361 082	3 709 154	157 489	—	203 593	X	X
327215	Glass product mfg made of purchased glass	1998.. 180 969	2 709 984	135 954	—	45 014	2	2
		1997.. 178 108	2 598 363	133 692	—	44 416	X	X
3273	Cement & concrete product mfg	1998.. 1 428 244	13 923 700	683 872	D	744 372	1	1
		1997.. 1 395 270	13 555 344	659 941	D	735 329	X	X
32731	Cement mfg	1998.. 971 965	10 900 783	485 238	D	486 727	1	1
		1997.. 968 515	10 798 974	482 921	D	485 594	X	X
327310	Cement mfg	1998.. 971 965	10 900 783	485 238	D	486 727	1	1
		1997.. 968 515	10 798 974	482 921	D	485 594	X	X
32732	Ready-mix concrete mfg	1998.. 273 823	1 512 891	100 690	7 980	173 134	2	2
		1997.. 260 799	1 407 869	90 637	8 032	170 162	X	X
327320	Ready-mix concrete mfg	1998.. 273 823	1 512 891	100 690	7 980	173 134	2	2
		1997.. 260 799	1 407 869	90 637	8 032	170 162	X	X
32733	Concrete pipe, brick, & block mfg	1998.. 94 529	799 959	51 614	D	42 915	4	5
		1997.. 86 655	706 575	45 269	D	41 386	X	X
327331	Concrete block & brick mfg	1998.. 58 645	486 275	31 788	D	26 856	4	6
		1997.. 54 924	432 298	28 052	D	26 872	X	X
327332	Concrete pipe mfg	1998.. 35 885	313 683	19 826	—	16 059	8	11
		1997.. 31 731	274 277	17 217	—	14 514	X	X
32739	Other concrete product mfg	1998.. 87 927	710 068	46 331	—	41 596	2	2
		1997.. 79 301	641 926	41 114	—	38 187	X	X
327390	Other concrete product mfg	1998.. 87 927	710 068	46 331	—	41 596	2	2
		1997.. 79 301	641 926	41 114	—	38 187	X	X

See footnotes at end of table.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
327	Nonmetallic mineral product mfg—Con.							
3274	Lime & gypsum product mfg							
	1998..	565 585	3 082 406	150 387	D	415 198	2	3
	1997..	526 890	2 705 072	141 138	D	385 752	X	X
32741	Lime mfg							
	1998..	274 503	1 428 834	65 644	—	208 859	4	4
	1997..	241 416	1 135 273	57 877	—	183 539	X	X
327410	Lime mfg							
	1998..	274 503	1 428 834	65 644	—	208 859	4	4
	1997..	241 416	1 135 273	57 877	—	183 539	X	X
32742	Gypsum product mfg							
	1998..	291 083	1 653 572	84 743	D	206 340	3	3
	1997..	285 474	1 569 799	83 261	D	202 213	X	X
327420	Gypsum product mfg							
	1998..	291 083	1 653 572	84 743	D	206 340	3	3
	1997..	285 474	1 569 799	83 261	D	202 213	X	X
3279	Other nonmetallic mineral product mfg							
	1998..	603 993	6 789 053	335 111	D	268 882	3	2
	1997..	598 311	6 658 361	313 748	D	284 563	X	X
32791	Abrasive product mfg							
	1998..	59 492	761 269	40 586	D	18 906	24	3
	1997..	72 893	941 976	49 756	D	23 137	X	X
327910	Abrasive product mfg							
	1998..	59 492	761 269	40 586	D	18 906	24	3
	1997..	72 893	941 976	49 756	D	23 137	X	X
32799	All other nonmetallic mineral product mfg							
	1998..	544 502	6 027 784	294 525	—	249 976	2	2
	1997..	525 418	5 716 385	263 992	—	261 426	X	X
327991	Cut stone & stone product mfg							
	1998..	36 564	281 412	20 565	—	15 999	7	12
	1997..	32 728	269 198	17 344	—	15 384	X	X
327992	Ground or treated mineral & earth mfg							
	1998..	145 976	1 348 361	73 319	—	72 566	5	2
	1997..	142 847	1 386 053	64 625	—	78 222	X	X
327993	Mineral wool mfg							
	1998..	311 819	3 951 761	169 874	—	141 945	2	2
	1997..	303 793	3 687 581	156 709	—	147 084	X	X
327999	All other miscellaneous nonmetallic mineral product mfg							
	1998..	50 143	446 250	30 767	—	19 375	12	18
	1997..	46 050	373 553	25 314	—	20 736	X	X
331	Primary metal mfg							
	1998..	7 962 522	133 014 859	4 803 034	13 258 138	3 159 487	1	1
	1997..	8 065 631	132 874 352	4 780 552	6 063 131	3 285 079	X	X
3311	Iron & steel mills & ferroalloy mfg							
	1998..	3 579 953	49 083 935	1 780 188	D	1 799 766	1	1
	1997..	3 628 174	47 726 652	1 791 323	D	1 836 851	X	X
33111	Iron & steel mills & ferroalloy mfg							
	1998..	3 579 953	49 083 935	1 780 188	D	1 799 766	1	1
	1997..	3 628 174	47 726 652	1 791 323	D	1 836 851	X	X
331111	Iron & steel mills							
	1998..	3 438 312	46 126 752	1 672 620	3 725 351	1 765 693	1	1
	1997..	3 481 358	44 747 817	1 681 871	3 656 108	1 799 487	X	X
331112	Electrometallurgical ferroalloy product mfg							
	1998..	141 641	2 957 183	107 568	D	34 073	1	1
	1997..	146 816	2 978 835	109 452	D	37 364	X	X
3312	Steel product mfg from purchased steel							
	1998..	390 845	4 747 178	269 755	—	121 090	1	1
	1997..	391 827	4 673 810	266 642	—	125 185	X	X
33121	Iron & steel pipes & tubes mfg from purchased steel							
	1998..	134 543	1 446 215	94 876	—	39 667	1	1
	1997..	136 669	1 426 171	94 072	—	42 597	X	X
331210	Iron & steel pipes & tubes mfg from purchased steel							
	1998..	134 543	1 446 215	94 876	—	39 667	1	1
	1997..	136 669	1 426 171	94 072	—	42 597	X	X
33122	Rolling & drawing of purchased steel							
	1998..	256 302	3 300 963	174 878	—	81 423	1	2
	1997..	255 158	3 247 639	172 570	—	82 588	X	X
331221	Cold-rolled steel shape mfg							
	1998..	133 882	1 690 850	87 492	—	46 390	1	1
	1997..	132 073	1 627 197	84 774	—	47 299	X	X
331222	Steel wire drawing							
	1998..	122 420	1 610 112	87 387	—	35 033	2	4
	1997..	123 085	1 620 442	87 796	—	35 289	X	X
3313	Alumina & aluminum production & processing							
	1998..	2 003 793	51 243 834	1 477 744	D	526 048	1	1
	1997..	2 031 560	52 233 488	1 437 802	D	593 758	X	X
33131	Alumina & aluminum production & processing							
	1998..	2 003 793	51 243 834	1 477 744	D	526 048	1	1
	1997..	2 031 560	52 233 488	1 437 802	D	593 758	X	X
331311	Alumina refining							
	1998..	157 198	372 189	14 756	700 917	142 442	1	1
	1997..	172 584	373 330	16 057	658 309	156 527	X	X
331312	Primary aluminum production							
	1998..	1 211 564	42 882 931	1 130 650	D	80 914	1	1
	1997..	1 184 024	43 426 337	1 070 993	D	113 031	X	X
331314	Secondary smelting & alloying of aluminum							
	1998..	98 491	660 119	36 146	—	62 345	1	3
	1997..	88 860	647 786	34 469	—	54 391	X	X
331315	Aluminum sheet, plate, & foil mfg							
	1998..	335 301	4 765 438	171 858	—	163 443	1	1
	1997..	378 556	5 214 825	192 478	—	186 078	X	X
331316	Aluminum extruded product mfg							
	1998..	151 274	1 638 955	85 261	—	66 013	1	1
	1997..	154 210	1 592 105	82 329	87 150	71 881	X	X
331319	Other aluminum rolling & drawing							
	1998..	49 964	924 202	39 074	—	10 890	1	1
	1997..	53 326	979 105	41 476	—	11 850	X	X
3314	Nonferrous metal (except aluminum) production & processing							
	1998..	775 488	11 765 106	481 846	1 236 571	293 643	1	1
	1997..	818 720	12 511 246	509 785	1 272 485	308 935	X	X
33141	Nonferrous metal (except aluminum) smelting & refining							
	1998..	314 171	5 897 715	191 209	1 228 069	122 962	2	1
	1997..	342 330	6 534 603	212 751	1 265 609	129 579	X	X
331411	Primary smelting & refining of copper							
	1998..	117 932	1 889 781	56 141	436 307	61 791	1	1
	1997..	129 160	2 092 878	63 553	480 706	65 607	X	X
331419	Other nonferrous metal primary smelting & refining							
	1998..	196 239	4 007 934	135 068	791 762	61 171	3	1
	1997..	213 170	4 441 725	149 198	784 903	63 972	X	X
33142	Copper rolling, drawing, extruding, & alloying							
	1998..	199 789	2 624 252	132 334	D	67 456	1	1
	1997..	203 977	2 668 611	134 008	D	69 969	X	X
331421	Copper rolling, drawing, & extruding							
	1998..	166 029	2 272 059	110 537	D	55 492	1	1
	1997..	171 195	2 316 305	111 902	D	59 293	X	X
331422	Copper wire (except mechanical) drawing							
	1998..	11 992	161 268	9 983	S	2 010	1	13
	1997..	12 077	160 468	10 216	—	1 861	X	X
331423	Secondary smelting, refining, & alloying of copper							
	1998..	21 768	190 925	11 814	—	9 954	1	5
	1997..	20 705	191 838	11 890	—	8 815	X	X

See footnotes at end of table.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
331	Primary metal mfg—Con.							
3314	Nonferrous metal (except aluminum) production & processing—Con.							
33149	Other nonferrous metal rolling, drawing, extruding, & alloying	1998.. 261 528	3 243 140	158 303	D	103 225	2	1
		1997.. 272 413	3 308 032	163 026	D	109 387	X	X
331491	Other nonferrous metal rolling, drawing, & extruding	1998.. 172 447	2 242 005	105 976	D	66 471	3	2
		1997.. 184 215	2 313 040	110 427	D	73 788	X	X
331492	Other nonferrous metal secondary smelting, refining, & alloying	1998.. 89 081	1 001 135	52 327	—	36 754	1	1
		1997.. 88 198	994 992	52 599	—	35 599	X	X
3315	Foundries	1998.. 1 212 443	16 174 806	793 502	3 121	418 940	1	2
		1997.. 1 195 350	15 729 156	775 000	23 041	420 350	X	X
33151	Ferrous metal foundries	1998.. 841 132	12 044 587	567 932	25	273 200	1	1
		1997.. 848 369	11 786 310	564 351	21 231	284 018	X	X
331511	Iron foundries	1998.. 636 107	9 132 937	420 277	D	215 831	1	2
		1997.. 645 828	8 938 479	421 716	D	224 112	X	X
331512	Steel investment foundries	1998.. 70 933	880 524	50 356	D	20 577	5	5
		1997.. 70 669	866 668	50 513	D	20 156	X	X
331513	Steel foundries (except investment)	1998.. 134 092	2 031 125	97 299	—	36 793	1	1
		1997.. 131 872	1 981 163	92 122	—	39 750	X	X
33152	Nonferrous metal foundries	1998.. 371 310	4 130 220	225 571	3 096	145 740	1	5
		1997.. 346 981	3 942 846	210 649	1 810	136 332	X	X
331521	Aluminum die-casting foundries	1998.. 131 587	1 412 711	75 950	D	55 637	3	11
		1997.. 127 539	1 370 587	71 986	D	55 553	X	X
331522	Nonferrous (except aluminum) die-casting foundries	1998.. 57 044	581 729	37 300	—	19 744	3	7
		1997.. 47 942	498 791	31 691	—	16 251	X	X
331524	Aluminum foundries (except die-casting)	1998.. 127 435	1 475 560	73 476	D	53 958	2	4
		1997.. 120 686	1 435 449	70 705	D	49 981	X	X
331525	Copper foundries (except die-casting)	1998.. 32 466	377 455	23 577	—	8 890	6	18
		1997.. 29 200	363 833	21 787	—	7 413	X	X
331528	Other nonferrous foundries (except die-casting)	1998.. 22 778	282 764	15 268	—	7 510	1	1
		1997.. 21 614	274 186	14 480	—	7 134	X	X
332	Fabricated metal product mfg	1998.. 3 736 992	42 195 469	2 562 515	192 713	1 174 478	1	1
		1997.. 3 701 764	41 256 891	2 509 152	80 093	1 192 612	X	X
3321	Forging & stamping	1998.. 463 320	4 886 438	296 359	10 962	166 962	1	7
		1997.. 472 610	4 802 229	294 085	—	178 525	X	X
33211	Forging & stamping	1998.. 463 320	4 886 438	296 359	10 962	166 962	1	7
		1997.. 472 610	4 802 229	294 085	—	178 525	X	X
332111	Iron & steel forging	1998.. 186 082	1 777 000	104 356	—	81 726	1	3
		1997.. 174 893	1 664 287	96 693	—	78 200	X	X
332112	Nonferrous forging	1998.. 53 999	469 541	26 917	S	27 082	1	1
		1997.. 52 087	455 565	27 067	—	25 200	X	X
332114	Custom roll forming	1998.. 30 260	357 276	22 604	—	7 657	3	6
		1997.. 29 460	325 065	21 278	—	8 182	X	X
332115	Crown & closure mfg	1998.. 19 138	203 941	10 989	—	8 149	1	1
		1997.. 20 452	203 225	11 379	—	9 073	X	X
332116	Metal stamping	1998.. 142 048	1 666 790	108 861	S	33 187	3	35
		1997.. 163 764	1 749 926	115 367	—	48 403	X	X
332117	Powder metallurgy part mfg	1998.. 31 792	411 890	22 631	—	9 161	2	4
		1997.. 31 954	404 161	22 307	—	9 647	X	X
3322	Cutlery & handtool mfg	1998.. 141 223	1 672 759	104 991	69 792	36 232	1	1
		1997.. 147 584	1 728 949	107 888	57 534	39 696	X	X
33221	Cutlery & handtool mfg	1998.. 141 223	1 672 759	104 991	69 792	36 232	1	1
		1997.. 147 584	1 728 949	107 888	57 534	39 696	X	X
332211	Cutlery & flatware (except precious) mfg	1998.. 22 315	218 515	15 837	D	6 478	4	2
		1997.. 24 061	236 076	17 018	D	7 043	X	X
332212	Hand & edge tool mfg	1998.. 81 984	1 014 158	61 353	D	20 631	2	2
		1997.. 84 594	1 036 552	62 240	D	22 354	X	X
332213	Saw blade & handsaw mfg	1998.. 18 628	242 576	16 509	—	2 119	1	5
		1997.. 18 748	250 225	16 529	—	2 219	X	X
332214	Kitchen utensil, pot, & pan mfg	1998.. 18 295	197 509	11 291	—	7 004	2	1
		1997.. 20 181	206 096	12 101	—	8 080	X	X
3323	Architectural & structural metals mfg	1998.. 530 771	5 593 271	351 286	S	179 486	1	2
		1997.. 499 440	5 278 570	332 736	—	166 704	X	X
33231	Plate work & fabricated structural product mfg	1998.. 220 937	2 228 365	138 599	S	82 337	1	3
		1997.. 209 185	2 181 804	136 608	—	72 577	X	X
332311	Prefabricated metal building & component mfg	1998.. 29 103	313 232	17 516	—	11 587	6	5
		1997.. 29 378	305 143	18 302	—	11 076	X	X
332312	Fabricated structural metal mfg	1998.. 150 481	1 539 881	96 933	S	53 547	1	5
		1997.. 136 929	1 511 286	94 492	—	42 437	X	X
332313	Plate work mfg	1998.. 41 353	375 252	24 150	—	17 203	2	3
		1997.. 42 878	365 395	23 814	—	19 064	X	X
33232	Ornamental & architectural metal products mfg	1998.. 309 835	3 364 906	212 687	S	97 148	1	2
		1997.. 290 255	3 096 786	196 128	—	94 127	X	X
332321	Metal window & door mfg	1998.. 88 979	999 369	61 428	—	27 551	1	6
		1997.. 79 710	913 161	55 566	—	24 144	X	X
332322	Sheet metal work mfg	1998.. 175 888	1 895 065	121 178	S	54 711	2	2
		1997.. 167 218	1 744 862	112 176	—	55 042	X	X
332323	Ornamental & architectural metal work mfg	1998.. 44 968	470 471	30 081	—	14 887	2	2
		1997.. 43 327	438 743	28 386	—	14 941	X	X
3324	Boiler, tank, & shipping container mfg	1998.. 331 980	4 245 717	236 895	S	95 085	1	2
		1997.. 357 470	4 547 371	250 900	—	106 570	X	X
33241	Power boiler & heat exchanger mfg	1998.. 45 067	500 473	31 095	—	13 971	2	10
		1997.. 42 978	470 803	29 273	—	13 705	X	X
332410	Power boiler & heat exchanger mfg	1998.. 45 067	500 473	31 095	—	13 971	2	10
		1997.. 42 978	470 803	29 273	—	13 705	X	X
33242	Metal tank (heavy gauge) mfg	1998.. 63 312	692 785	42 755	—	20 558	3	4
		1997.. 63 149	663 396	40 832	—	22 317	X	X
332420	Metal tank (heavy gauge) mfg	1998.. 63 312	692 785	42 755	—	20 558	3	4
		1997.. 63 149	663 396	40 832	—	22 317	X	X

See footnotes at end of table.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
332	Fabricated metal product mfg—Con.							
3324	Boiler, tank, & shipping container mfg—Con.							
33243	Metal can, box, & other metal container (light gauge) mfg							
	1998..	223 601	3 052 459	163 045	S	60 556	1	1
	1997..	251 343	3 413 172	180 795	—	70 548	X	X
332431	Metal can mfg							
	1998..	185 532	2 706 744	139 759	—	45 772	1	1
	1997..	214 871	3 092 099	159 132	—	55 739	X	X
332439	Other metal container mfg							
	1998..	38 070	345 714	23 286	S	14 784	3	1
	1997..	36 472	321 073	21 663	—	14 809	X	X
3325	Hardware mfg							
	1998..	106 777	1 236 469	77 057	D	29 721	1	2
	1997..	111 650	1 268 570	78 705	D	32 945	X	X
33251	Hardware mfg							
	1998..	106 777	1 236 469	77 057	D	29 721	1	2
	1997..	111 650	1 268 570	78 705	D	32 945	X	X
332510	Hardware mfg							
	1998..	106 777	1 236 469	77 057	D	29 721	1	2
	1997..	111 650	1 268 570	78 705	D	32 945	X	X
3326	Spring & wire product mfg							
	1998..	139 058	1 598 779	95 303	D	43 755	1	4
	1997..	129 843	1 463 487	88 515	D	41 328	X	X
33261	Spring & wire product mfg							
	1998..	139 058	1 598 779	95 303	D	43 755	1	4
	1997..	129 843	1 463 487	88 515	D	41 328	X	X
332611	Spring (heavy gauge) mfg							
	1998..	23 034	218 110	13 758	—	9 276	1	1
	1997..	19 630	177 916	11 266	—	8 364	X	X
332612	Spring (light gauge) mfg							
	1998..	33 715	400 348	23 643	—	10 072	3	8
	1997..	31 349	354 303	21 458	—	9 891	X	X
332618	Other fabricated wire product mfg							
	1998..	82 309	980 321	57 902	D	24 407	2	6
	1997..	78 864	931 268	55 791	D	23 073	X	X
3327	Machine shops, turned product, & screw, nut, & bolt mfg							
	1998..	574 323	6 619 696	441 184		133 139	3	4
	1997..	574 223	6 430 349	432 643		141 580	X	X
33271	Machine shops							
	1998..	332 319	3 927 572	255 804		76 516	6	7
	1997..	336 379	3 821 612	252 976		83 403	X	X
332710	Machine shops							
	1998..	332 319	3 927 572	255 804		76 516	6	7
	1997..	336 379	3 821 612	252 976		83 403	X	X
33272	Turned product & screw, nut, & bolt mfg							
	1998..	242 003	2 692 125	185 380		56 623	2	3
	1997..	237 844	2 608 737	179 667		58 177	X	X
332721	Precision turned product mfg							
	1998..	112 239	1 331 648	90 669	S	21 570	2	5
	1997..	106 691	1 268 743	86 790	—	19 901	X	X
332722	Bolt, nut, screw, rivet, & washer mfg							
	1998..	129 764	1 360 477	94 711		35 053	2	3
	1997..	131 153	1 339 994	92 877		38 276	X	X
3328	Coating, engraving, heat treating, & allied activities							
	1998..	734 560	6 990 851	428 270		306 289	1	3
	1997..	710 016	6 730 654	414 044		295 972	X	X
33281	Coating, engraving, heat treating, & allied activities							
	1998..	734 560	6 990 851	428 270		306 289	1	3
	1997..	710 016	6 730 654	414 044		295 972	X	X
332811	Metal heat treating							
	1998..	215 617	1 844 858	114 384		101 234	4	7
	1997..	204 057	1 800 056	112 167		91 890	X	X
332812	Metal coating/engraving (exc jewelry/silverware)/allied services							
	1998..	261 050	2 448 982	141 865		119 185	2	3
	1997..	243 653	2 266 811	130 377		113 276	X	X
332813	Electroplating, plating, polishing, anodizing, & coloring							
	1998..	257 892	2 697 010	172 022		85 870	2	3
	1997..	262 306	2 663 787	171 500		90 806	X	X
3329	Other fabricated metal product mfg							
	1998..	714 980	9 351 489	531 170		183 810	1	1
	1997..	698 928	9 006 712	509 636		189 292	X	X
33291	Metal valve mfg							
	1998..	227 428	3 210 906	184 423		43 004	1	3
	1997..	223 041	3 075 049	178 172		44 869	X	X
332911	Industrial valve mfg							
	1998..	99 597	1 395 812	83 498		16 100	3	3
	1997..	94 788	1 321 327	77 594		17 194	X	X
332912	Fluid power valve & hose fitting mfg							
	1998..	50 326	830 414	44 349		5 977	1	6
	1997..	51 958	790 998	44 695		7 263	X	X
332913	Plumbing fixture fitting & trim mfg							
	1998..	27 470	308 168	18 888		8 582	3	10
	1997..	26 926	291 081	18 895		8 031	X	X
332919	Other metal valve & pipe fitting mfg							
	1998..	50 034	676 513	37 689		12 346	3	6
	1997..	49 369	671 643	36 988		12 381	X	X
33299	All other fabricated metal product mfg							
	1998..	487 552	6 140 583	346 747		140 805	1	1
	1997..	475 887	5 931 663	331 464		144 423	X	X
332991	Ball & roller bearing mfg							
	1998..	130 184	1 902 751	94 411		35 773	1	1
	1997..	130 391	1 856 456	91 464		38 927	X	X
332992	Small arms ammunition mfg							
	1998..	13 904	215 122	8 894		5 010	1	1
	1997..	16 586	226 572	9 576		7 010	X	X
332993	Ammunition (except small arms) mfg							
	1998..	21 137	246 119	15 043		6 094	1	1
	1997..	21 520	238 767	14 650		6 870	X	X
332994	Small arms mfg							
	1998..	19 719	194 723	15 395		4 324	1	1
	1997..	18 940	201 557	15 111		3 829	X	X
332995	Other ordnance & accessories mfg							
	1998..	16 223	239 849	11 843		4 380	1	1
	1997..	17 117	234 948	11 650		5 467	X	X
332996	Fabricated pipe & pipe fitting mfg							
	1998..	57 119	619 968	37 221		19 898	2	8
	1997..	54 720	599 094	37 235		17 485	X	X
332997	Industrial pattern mfg							
	1998..	8 998	93 824	6 053		2 946	6	8
	1997..	9 877	103 812	6 540		3 337	X	X
332998	Enameled iron & metal sanitary ware mfg							
	1998..	37 741	493 212	25 139		12 602	1	1
	1997..	36 358	471 304	23 898		12 460	X	X
332999	All other miscellaneous fabricated metal product mfg							
	1998..	182 527	2 135 016	132 748		49 779	2	1
	1997..	170 378	1 999 153	121 340		49 038	X	X

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			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
333	Machinery mfg	1998.. 2 057 893	27 231 106	1 569 607	65 352	488 286	1	1
		1997.. 2 068 747	26 985 172	1 556 679	22 191	512 068	X	X
3331	Agriculture, construction, & mining machinery mfg ..	1998.. 352 946	5 000 161	244 690	5 614	108 255	1	2
		1997.. 350 482	4 994 926	239 463	11 864	111 019	X	X
33311	Agricultural implement mfg	1998.. 143 145	2 003 033	93 925	S	49 220	1	2
		1997.. 142 413	1 992 948	90 474	11 864	51 939	X	X
333111	Farm machinery & equipment mfg	1998.. 105 403	1 484 982	67 436	S	37 967	1	2
		1997.. 107 744	1 487 749	66 786	11 864	40 958	X	X
333112	Lawn & garden tractor & home lawn & garden equipment mfg	1998.. 37 743	518 051	26 490	50	11 253	2	4
		1997.. 34 669	505 199	23 688	—	10 981	X	X
33312	Construction machinery mfg	1998.. 131 692	1 882 207	89 267	15 580	42 425	2	5
		1997.. 137 637	1 990 002	93 921	—	43 716	X	X
333120	Construction machinery mfg	1998.. 131 692	1 882 207	89 267	15 580	42 425	2	5
		1997.. 137 637	1 990 002	93 921	—	43 716	X	X
33313	Mining & oil & gas field machinery mfg	1998.. 78 109	1 114 921	61 498	—	16 610	2	1
		1997.. 70 432	1 011 976	55 068	—	15 364	X	X
333131	Mining machinery & equipment mfg	1998.. 26 726	336 460	18 961	—	7 765	5	2
		1997.. 23 176	278 451	16 246	—	6 930	X	X
333132	Oil & gas field machinery & equipment mfg	1998.. 51 383	778 461	42 537	—	8 845	1	1
		1997.. 47 256	733 525	38 822	—	8 434	X	X
3332	Industrial machinery mfg	1998.. 243 909	2 872 703	191 947	53 857	51 962	1	4
		1997.. 256 379	2 967 168	198 401	S	57 978	X	X
33321	Sawmill & woodworking machinery mfg	1998.. 9 188	130 380	7 353	—	1 835	4	22
		1997.. 10 192	136 312	7 301	—	2 891	X	X
333210	Sawmill & woodworking machinery mfg	1998.. 9 188	130 380	7 353	—	1 835	4	22
		1997.. 10 192	136 312	7 301	—	2 891	X	X
33322	Plastics & rubber industry machinery mfg	1998.. 23 570	249 859	16 309	—	7 261	5	4
		1997.. 23 363	239 213	15 760	—	7 603	X	X
333220	Plastics & rubber industry machinery mfg	1998.. 23 570	249 859	16 309	—	7 261	5	4
		1997.. 23 363	239 213	15 760	—	7 603	X	X
33329	Other industrial machinery mfg	1998.. 211 152	2 492 464	168 285	53 857	42 867	1	5
		1997.. 222 824	2 591 643	175 340	S	47 484	X	X
333291	Paper industry machinery mfg	1998.. 21 871	247 426	16 358	—	5 513	3	6
		1997.. 21 956	244 342	16 485	—	5 471	X	X
333292	Textile machinery mfg	1998.. 15 759	211 893	12 504	—	3 255	5	20
		1997.. 16 714	223 516	13 106	—	3 608	X	X
333293	Printing machinery & equipment mfg	1998.. 26 919	355 421	21 677	—	5 242	4	3
		1997.. 27 362	349 061	21 890	S	5 472	X	X
333294	Food product machinery mfg	1998.. 18 861	229 266	13 785	—	5 075	3	8
		1997.. 18 276	221 332	13 385	—	4 891	X	X
333295	Semiconductor machinery mfg	1998.. 64 252	721 521	54 040	D	10 212	3	12
		1997.. 73 551	793 873	62 067	D	11 484	X	X
333298	All other industrial machinery mfg	1998.. 63 491	726 937	49 922	D	13 569	2	10
		1997.. 64 965	759 519	48 407	D	16 558	X	X
3333	Commercial & service industry machinery mfg	1998.. 173 962	2 148 714	137 664	S	36 298	1	1
		1997.. 174 978	2 099 757	137 515	S	37 463	X	X
33331	Commercial & service industry machinery mfg	1998.. 173 962	2 148 714	137 664	S	36 298	1	1
		1997.. 174 978	2 099 757	137 515	S	37 463	X	X
333311	Automatic vending machine mfg	1998.. 8 993	124 891	6 950	S	2 043	1	1
		1997.. 8 704	117 107	6 657	S	2 047	X	X
333312	Commercial laundry, drycleaning, & pressing machine mfg	1998.. 4 607	65 660	3 362	—	1 245	1	1
		1997.. 4 780	65 238	3 454	—	1 326	X	X
333313	Office machinery mfg	1998.. 17 632	208 966	13 730	—	3 901	1	2
		1997.. 18 486	211 399	14 558	—	3 928	X	X
333314	Optical instrument & lens mfg	1998.. 36 193	453 485	30 536	S	6 657	2	3
		1997.. 35 076	446 680	28 790	S	6 286	X	X
333315	Photographic & photocopying equipment mfg ..	1998.. 47 526	573 012	37 199	—	10 327	1	1
		1997.. 49 021	553 282	39 113	S	9 908	X	X
333319	Other commercial & service industry machinery mfg	1998.. 59 012	722 701	45 887	S	13 125	1	2
		1997.. 58 911	706 051	44 943	—	13 968	X	X
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	1998.. 230 813	3 232 132	174 051	—	56 762	4	2
		1997.. 223 537	3 052 472	165 702	—	57 835	X	X
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	1998.. 230 813	3 232 132	174 051	—	56 762	4	2
		1997.. 223 537	3 052 472	165 702	—	57 835	X	X
333411	Air purification equipment mfg	1998.. 29 216	479 700	23 387	—	5 829	31	7
		1997.. 21 926	305 030	16 439	—	5 487	X	X
333412	Industrial & commercial fan & blower mfg	1998.. 16 434	184 788	10 906	—	5 528	9	17
		1997.. 20 054	278 080	15 518	—	4 536	X	X
333414	Heating equipment (except warm air furnaces) mfg	1998.. 31 614	338 156	21 184	—	10 429	4	3
		1997.. 33 246	343 534	21 454	—	11 792	X	X
333415	AC & warm air heating & commercial/industrial refrig equip mfg	1998.. 153 549	2 229 488	118 573	—	34 976	1	1
		1997.. 148 311	2 125 828	112 291	—	36 020	X	X
3335	Metalworking machinery mfg	1998.. 328 628	3 932 161	259 524	21 173	69 104	3	2
		1997.. 332 445	3 997 548	264 005	905	68 440	X	X
33351	Metalworking machinery mfg	1998.. 328 628	3 932 161	259 524	21 173	69 104	3	2
		1997.. 332 445	3 997 548	264 005	905	68 440	X	X
333511	Industrial mold mfg	1998.. 62 739	701 769	48 255	—	14 484	10	3
		1997.. 64 975	757 260	50 694	—	14 281	X	X
333512	Machine tool (metal cutting types) mfg	1998.. 37 080	465 095	29 460	—	7 620	4	5
		1997.. 41 787	496 131	33 277	—	8 510	X	X
333513	Machine tool (metal forming types) mfg	1998.. 18 700	232 180	13 986	—	4 714	2	1
		1997.. 18 259	218 306	13 330	—	4 929	X	X
333514	Special die & tool, die set, jig, & fixture mfg	1998.. 104 719	1 182 469	80 681	12 524	24 037	2	3
		1997.. 98 655	1 131 339	76 797	—	21 858	X	X
333515	Cutting tool & machine tool accessory mfg	1998.. 77 872	1 041 245	65 374	D	12 498	8	6
		1997.. 78 713	1 053 976	66 885	—	11 828	X	X
333516	Rolling mill machinery & equipment mfg	1998.. 8 350	90 897	6 265	—	2 085	4	4
		1997.. 9 993	123 163	7 299	—	2 694	X	X

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			Quantity (1,000 kWh)	Cost (\$1,000)	Generated less sold (1,000 kWh)		C	E
A	B	C	D	E	C	E		
333	Machinery mfg—Con.							
3335	Metalworking machinery mfg—Con.							
33351	Metalworking machinery mfg—Con.							
333518	Other metalworking machinery mfg	19 167	218 507	15 502	D	3 665	3	9
	1997..	20 063	217 373	15 723	D	4 340	X	X
3336	Engine, turbine, & power transmission equipment mfg	252 214	3 873 208	191 257	25 248	60 957	1	3
	1997..	248 580	3 763 906	188 094	19 766	60 486	X	X
33361	Engine, turbine, & power transmission equipment mfg	252 214	3 873 208	191 257	25 248	60 957	1	3
	1997..	248 580	3 763 906	188 094	19 766	60 486	X	X
333611	Turbine & turbine generator set unit mfg	44 909	618 819	35 960	14 290	8 949	1	7
	1997..	41 002	586 515	32 981	9 868	8 021	X	X
333612	Speed changer, industrial high-speed drive, & gear mfg	33 290	380 495	22 378	—	10 911	2	16
	1997..	28 241	375 319	20 890	—	7 351	X	X
333613	Mechanical power transmission equipment mfg	43 853	586 203	34 544	—	9 309	1	3
	1997..	45 058	622 116	34 977	—	10 081	X	X
333618	Other engine equipment mfg	130 162	2 287 691	98 375	10 958	31 788	2	2
	1997..	134 279	2 179 956	99 246	9 898	35 033	X	X
3339	Other general-purpose machinery mfg	475 421	6 172 026	370 474	S	104 947	1	5
	1997..	482 346	6 109 395	363 499	121	118 847	X	X
33391	Pump & compressor mfg	107 773	1 421 900	85 394	S	22 379	2	1
	1997..	107 163	1 408 832	83 847	121	23 316	X	X
333911	Pump & pumping equipment mfg	62 416	845 454	51 159	S	11 257	3	1
	1997..	61 488	814 288	49 539	121	11 949	X	X
333912	Air & gas compressor mfg	38 456	485 363	29 284	—	9 172	1	1
	1997..	39 340	496 227	29 227	—	10 113	X	X
333913	Measuring & dispensing pump mfg	6 901	91 083	4 952	—	1 949	1	8
	1997..	6 335	98 337	5 081	—	1 254	X	X
33392	Material handling equipment mfg	99 028	1 295 786	75 043	—	23 985	4	19
	1997..	101 642	1 245 612	70 073	—	31 569	X	X
333921	Elevator & moving stairway mfg	9 312	124 908	6 543	—	2 769	25	20
	1997..	11 134	136 932	7 761	—	3 373	X	X
333922	Conveyor & conveying equipment mfg	35 804	433 288	26 997	—	8 807	2	33
	1997..	38 924	438 089	25 639	—	13 285	X	X
333923	Overhead traveling crane, hoist, & monorail system mfg	21 160	283 604	17 361	—	3 800	16	91
	1997..	21 205	251 821	14 464	—	6 741	X	X
333924	Industrial truck, tractor, trailer, & stacker machinery mfg	32 751	453 966	24 141	—	8 610	1	3
	1997..	30 379	418 770	22 209	—	8 170	X	X
33399	All other general-purpose machinery mfg	268 620	3 454 360	210 037	S	58 584	1	2
	1997..	273 541	3 454 951	209 579	—	63 962	X	X
333991	Power-driven handtool mfg	25 164	398 849	21 256	—	3 909	1	1
	1997..	23 647	365 119	19 899	—	3 748	X	X
333992	Welding & soldering equipment mfg	43 594	498 237	31 594	—	12 000	1	1
	1997..	44 615	503 224	31 654	—	12 961	X	X
333993	Packaging machinery mfg	27 339	324 785	20 795	—	6 544	11	10
	1997..	28 904	340 465	21 918	—	6 986	X	X
333994	Industrial process furnace & oven mfg	22 149	229 713	15 824	3 800	6 326	3	4
	1997..	22 386	227 123	15 978	—	6 408	X	X
333995	Fluid power cylinder & actuator mfg	35 149	508 330	29 134	—	6 015	2	5
	1997..	39 304	508 924	29 720	—	9 584	X	X
333996	Fluid power pump & motor mfg	29 728	491 228	26 409	S	3 319	1	7
	1997..	29 019	466 755	25 610	—	3 409	X	X
333997	Scale & balance (except laboratory) mfg	3 841	49 798	3 081	—	759	3	14
	1997..	3 916	49 683	3 079	—	837	X	X
333999	All other miscellaneous general-purpose machinery mfg	81 655	953 419	61 943	S	19 712	2	4
	1997..	81 750	993 658	61 721	—	20 029	X	X
334	Computer & electronic product mfg	2 607 081	37 389 343	2 237 722	S	369 359	1	1
	1997..	2 642 922	37 831 057	2 229 900	S	413 022	X	X
3341	Computer & peripheral equipment mfg	323 989	5 144 923	282 611	10 528	41 378	1	1
	1997..	311 131	4 434 082	249 998	2 105	61 133	X	X
33411	Computer & peripheral equipment mfg	323 989	5 144 923	282 611	10 528	41 378	1	1
	1997..	311 131	4 434 082	249 998	2 105	61 133	X	X
334111	Electronic computer mfg	106 130	1 407 883	95 064	D	11 066	1	1
	1997..	108 947	1 697 183	97 222	—	11 725	X	X
334112	Computer storage device mfg	84 771	1 666 620	79 383	D	5 388	1	3
	1997..	73 824	899 444	49 528	D	24 296	X	X
334113	Computer terminal mfg	7 252	102 012	6 785	—	467	2	3
	1997..	8 679	110 103	8 055	—	624	X	X
334119	Other computer peripheral equipment mfg	125 837	1 968 408	101 379	S	24 458	3	1
	1997..	119 681	1 727 352	95 193	—	24 488	X	X
3342	Communications equipment mfg	291 929	4 078 393	258 488	S	33 441	1	1
	1997..	313 101	4 310 144	274 230	—	38 871	X	X
33421	Telephone apparatus mfg	109 768	1 473 508	96 337	101	13 432	1	1
	1997..	106 590	1 430 093	90 467	—	16 123	X	X
334210	Telephone apparatus mfg	109 768	1 473 508	96 337	101	13 432	1	1
	1997..	106 590	1 430 093	90 467	—	16 123	X	X
33422	Radio & TV broadcasting & wireless communications equipment mfg	161 524	2 367 654	145 197	S	16 327	1	1
	1997..	185 573	2 634 362	166 892	—	18 681	X	X
334220	Radio & TV broadcasting & wireless communications equipment mfg	161 524	2 367 654	145 197	S	16 327	1	1
	1997..	185 573	2 634 362	166 892	—	18 681	X	X
33429	Other communications equipment mfg	20 636	237 231	16 954	226	3 682	2	5
	1997..	20 938	245 689	16 871	—	4 067	X	X
334290	Other communications equipment mfg	20 636	237 231	16 954	226	3 682	2	5
	1997..	20 938	245 689	16 871	—	4 067	X	X

See footnotes at end of table.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
334	Computer & electronic product mfg—Con.							
3343	Audio & video equipment mfg	1998.. 41 767	693 232	35 655	—	6 112	15	3
		1997.. 33 637	526 197	26 983	—	6 654	X	X
33431	Audio & video equipment mfg	1998.. 41 767	693 232	35 655	—	6 112	15	3
		1997.. 33 637	526 197	26 983	—	6 654	X	X
334310	Audio & video equipment mfg	1998.. 41 767	693 232	35 655	—	6 112	15	3
		1997.. 33 637	526 197	26 983	—	6 654	X	X
3344	Semiconductor & other electronic component mfg	1998.. 1 260 880	18 138 690	1 063 877	—	197 003	1	2
		1997.. 1 275 472	19 187 855	1 074 497	—	200 975	X	X
33441	Semiconductor & other electronic component mfg	1998.. 1 260 880	18 138 690	1 063 877	—	197 003	1	2
		1997.. 1 275 472	19 187 855	1 074 497	—	200 975	X	X
334411	Electron tube mfg	1998.. 69 719	1 052 843	53 437	—	16 282	1	1
		1997.. 71 703	1 210 430	55 441	—	16 262	X	X
334412	Bare printed circuit board mfg	1998.. 162 993	2 131 553	140 605	—	22 388	1	3
		1997.. 152 307	1 921 588	129 337	—	22 970	X	X
334413	Semiconductor & related device mfg	1998.. 684 681	10 620 014	590 648	—	94 033	1	3
		1997.. 697 062	11 319 854	591 819	—	105 243	X	X
334414	Electronic capacitor mfg	1998.. 28 763	488 916	26 059	—	2 704	2	5
		1997.. 31 581	536 896	27 779	—	3 802	X	X
334415	Electronic resistor mfg	1998.. 15 098	235 702	13 454	—	1 644	2	6
		1997.. 15 854	229 397	13 978	—	1 876	X	X
334416	Electronic coil, transformer, & other inductor mfg	1998.. 13 580	148 996	10 423	—	3 157	3	6
		1997.. 14 769	167 722	11 277	—	3 492	X	X
334417	Electronic connector mfg	1998.. 49 602	668 016	44 155	—	5 447	2	12
		1997.. 52 825	673 133	44 819	—	8 006	X	X
334418	Printed circuit assembly (electronic assembly) mfg	1998.. 143 968	1 615 728	111 151	—	32 817	1	8
		1997.. 150 128	2 003 027	127 063	—	23 065	X	X
334419	Other electronic component mfg	1998.. 92 475	1 176 921	73 944	—	18 531	1	9
		1997.. 89 243	1 125 808	72 984	—	16 259	X	X
3345	Navigational, measuring, medical, & control instruments mfg	1998.. 560 996	7 572 820	488 606	S	72 390	1	2
		1997.. 578 259	7 677 153	492 765	S	85 494	X	X
33451	Navigational, measuring, medical, & control instruments mfg	1998.. 560 996	7 572 820	488 606	S	72 390	1	2
		1997.. 578 259	7 677 153	492 765	S	85 494	X	X
334510	Electromedical & electrotherapeutic apparatus mfg	1998.. 46 425	624 963	40 356	S	6 069	5	1
		1997.. 45 951	652 839	40 015	S	5 936	X	X
334511	Search, detection, navigation, & guidance instrument mfg	1998.. 235 508	3 395 512	215 058	S	20 456	1	1
		1997.. 253 911	3 583 717	221 910	S	32 001	X	X
334512	Automatic environmental control mfg	1998.. 25 101	402 370	21 925	—	3 177	5	7
		1997.. 25 139	386 987	21 307	—	3 832	X	X
334513	Industrial process control instrument mfg	1998.. 48 250	603 644	41 275	S	6 976	2	4
		1997.. 46 723	594 722	39 346	S	7 377	X	X
334514	Totalizing fluid meter & counting device mfg	1998.. 24 032	357 067	18 972	S	5 060	1	9
		1997.. 22 913	332 457	18 134	S	4 779	X	X
334515	Electricity measuring & testing instrument mfg	1998.. 82 194	1 000 846	69 307	S	12 887	4	12
		1997.. 79 855	911 059	68 692	S	11 163	X	X
334516	Analytical laboratory instrument mfg	1998.. 33 047	388 786	28 700	S	4 347	2	10
		1997.. 34 143	385 039	28 782	S	5 361	X	X
334517	Irradiation apparatus mfg	1998.. 17 365	243 080	14 588	S	2 778	2	3
		1997.. 19 603	277 067	16 184	S	3 419	X	X
334518	Watch, clock, & part mfg	1998.. 8 251	121 041	6 753	—	1 498	1	1
		1997.. 7 998	112 818	6 576	—	1 422	X	X
334519	Other measuring & controlling device mfg	1998.. 40 821	435 509	31 679	S	9 142	2	4
		1997.. 42 023	440 448	31 819	S	10 204	X	X
3346	Mfg & reproducing magnetic & optical media	1998.. 127 520	1 761 285	108 485	—	19 035	1	1
		1997.. 131 322	1 695 626	111 427	—	19 895	X	X
33461	Mfg & reproducing magnetic & optical media	1998.. 127 520	1 761 285	108 485	—	19 035	1	1
		1997.. 131 322	1 695 626	111 427	—	19 895	X	X
334611	Software reproducing	1998.. 15 193	186 383	11 623	—	3 570	10	4
		1997.. 13 514	168 685	11 167	—	2 347	X	X
334612	Prerecorded CD (except software), tape, & record reproducing	1998.. 54 195	733 583	46 709	—	7 485	1	2
		1997.. 51 780	637 045	41 282	—	10 498	X	X
334613	Magnetic & optical recording media mfg	1998.. 58 132	841 319	50 153	—	7 979	1	1
		1997.. 66 028	889 896	58 978	—	7 050	X	X
335	Electrical equipment, appliance, & component mfg	1998.. 1 130 769	16 350 757	892 539	S	238 229	1	1
		1997.. 1 165 526	16 456 455	901 622	S	263 904	X	X
3351	Electric lighting equipment mfg	1998.. 113 951	1 341 625	83 464	—	30 486	1	2
		1997.. 123 431	1 361 958	84 911	D	38 520	X	X
33511	Electric lamp bulb & part mfg	1998.. 46 491	634 570	36 249	—	10 242	1	1
		1997.. 55 090	665 556	38 239	D	16 851	X	X
335110	Electric lamp bulb & part mfg	1998.. 46 491	634 570	36 249	D	10 242	1	1
		1997.. 55 090	665 556	38 239	D	16 851	X	X
33512	Lighting fixture mfg	1998.. 67 460	707 055	47 215	S	20 244	1	4
		1997.. 68 341	696 402	46 672	S	21 669	X	X
335121	Residential electric lighting fixture mfg	1998.. 15 754	127 955	10 135	S	5 620	3	7
		1997.. 15 070	121 491	9 769	S	5 301	X	X
335122	Commercial/industrial/institutional electric lighting fixture mfg	1998.. 28 206	309 754	19 770	—	8 436	1	1
		1997.. 28 827	306 805	19 553	—	9 274	X	X
335129	Other lighting equipment mfg	1998.. 23 500	269 346	17 311	—	6 189	3	9
		1997.. 24 444	268 106	17 350	—	7 094	X	X

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			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
335	Electrical equipment, appliance, & component mfg—Con.							
3352	Household appliance mfg	1998.. 159 853	2 586 348	119 359	11 927	40 494	2	2
		1997.. 161 166	2 529 256	115 428	7 150	45 738	X	X
33521	Small electrical appliance mfg	1998.. 50 476	728 786	41 875	—	8 601	5	3
		1997.. 48 946	661 984	39 473	—	9 473	X	X
335211	Electric housewares & household fan mfg	1998.. 34 193	438 587	28 334	—	5 859	8	5
		1997.. 32 170	393 094	25 820	—	6 350	X	X
335212	Household vacuum cleaner mfg	1998.. 16 283	290 179	13 541	—	2 742	1	1
		1997.. 16 776	268 890	13 653	—	3 123	X	X
33522	Major appliance mfg	1998.. 109 377	1 857 582	77 484	11 927	31 893	2	2
		1997.. 112 220	1 867 272	75 955	7 150	36 265	X	X
335221	Household cooking appliance mfg	1998.. 28 315	374 094	17 629	D	10 686	7	7
		1997.. 28 256	362 986	16 622	D	11 634	X	X
335222	Household refrigerator & home freezer mfg	1998.. 33 147	674 486	27 442	—	5 705	1	1
		1997.. 36 069	741 966	28 853	—	7 216	X	X
335224	Household laundry equipment mfg	1998.. 27 055	460 543	17 817	—	9 239	1	1
		1997.. 27 023	450 704	17 007	—	10 016	X	X
335228	Other major household appliance mfg	1998.. 20 859	348 459	14 596	D	6 263	1	1
		1997.. 20 872	311 616	13 473	D	7 399	X	X
3353	Electrical equipment mfg	1998.. 277 464	3 769 279	217 826	S	59 637	1	2
		1997.. 279 938	3 788 282	217 420	S	62 518	X	X
33531	Electrical equipment mfg	1998.. 277 464	3 769 279	217 826	S	59 637	1	2
		1997.. 279 938	3 788 282	217 420	S	62 518	X	X
335311	Power, distribution, & specialty transformer mfg	1998.. 43 441	610 386	31 770	S	11 671	3	8
		1997.. 43 917	589 945	31 724	S	12 193	X	X
335312	Motor & generator mfg	1998.. 106 060	1 501 848	78 740	S	27 319	3	4
		1997.. 112 156	1 603 178	82 418	S	29 738	X	X
335313	Switchgear & switchboard apparatus mfg	1998.. 65 808	818 808	55 302	—	10 506	1	1
		1997.. 62 518	772 390	51 996	—	10 522	X	X
335314	Relay & industrial control mfg	1998.. 62 155	838 237	52 014	S	10 141	2	3
		1997.. 61 347	822 769	51 282	S	10 065	X	X
3359	Other electrical equipment & component mfg	1998.. 579 502	8 653 505	471 890	S	107 612	1	2
		1997.. 600 991	8 776 959	483 863	S	117 128	X	X
33591	Battery mfg	1998.. 125 538	1 941 338	99 914	D	25 624	1	1
		1997.. 139 925	2 080 589	114 606	D	25 319	X	X
335911	Storage battery mfg	1998.. 104 857	1 598 906	83 393	—	21 463	1	1
		1997.. 123 203	1 811 253	100 358	—	22 845	X	X
335912	Primary battery mfg	1998.. 20 681	342 432	16 521	S	4 160	1	1
		1997.. 16 722	269 336	14 248	S	2 474	X	X
33592	Communication & energy wire & cable mfg	1998.. 153 278	2 371 383	128 939	D	24 339	1	8
		1997.. 149 471	2 323 090	125 700	D	23 771	X	X
335921	Fiber optic cable mfg	1998.. 22 255	380 246	18 400	D	3 856	1	2
		1997.. 19 745	342 815	16 300	D	3 445	X	X
335929	Other communication & energy wire mfg	1998.. 131 022	1 991 138	110 539	—	20 483	1	9
		1997.. 129 726	1 980 275	109 400	—	20 326	X	X
33593	Wiring device mfg	1998.. 153 570	1 921 709	131 816	S	21 754	1	2
		1997.. 122 587	1 655 816	101 050	S	21 537	X	X
335931	Current-carrying wiring device mfg	1998.. 61 570	830 163	53 317	S	8 253	1	2
		1997.. 58 172	740 457	49 468	S	8 704	X	X
335932	Noncurrent-carrying wiring device mfg	1998.. 91 999	1 091 547	78 498	S	13 501	1	3
		1997.. 64 415	915 359	51 582	S	12 833	X	X
33599	All other electrical equipment & component mfg	1998.. 147 117	2 419 075	111 221	S	35 895	1	4
		1997.. 189 008	2 717 464	142 507	S	46 501	X	X
335991	Carbon & graphite product mfg	1998.. 95 730	1 840 811	67 188	—	28 541	1	3
		1997.. 107 535	1 822 650	69 167	—	38 368	X	X
335999	All other miscellaneous electrical equipment & component mfg	1998.. 51 387	578 263	44 033	—	7 354	4	14
		1997.. 81 473	894 814	73 340	—	8 133	X	X
336	Transportation equipment mfg	1998.. 3 606 977	51 700 100	2 677 351	S	929 626	1	1
		1997.. 3 752 036	53 052 802	2 768 031	S	984 005	X	X
3361	Motor vehicle mfg	1998.. 673 295	10 090 751	445 770	S	227 524	1	1
		1997.. 708 067	9 777 688	441 760	S	266 307	X	X
33611	Automobile & light duty motor vehicle mfg	1998.. 633 304	9 518 538	416 834	S	216 471	1	1
		1997.. 669 340	9 278 001	415 402	S	253 938	X	X
336111	Automobile mfg	1998.. 327 469	5 279 104	220 803	S	106 666	1	1
		1997.. 339 357	5 198 184	219 440	S	119 917	X	X
336112	Light truck & utility vehicle mfg	1998.. 305 836	4 239 434	196 031	S	109 805	1	1
		1997.. 329 983	4 079 817	195 962	S	134 021	X	X
33612	Heavy duty truck mfg	1998.. 39 990	572 214	28 936	S	11 054	1	1
		1997.. 38 727	499 687	26 358	S	12 369	X	X
336120	Heavy duty truck mfg	1998.. 39 990	572 214	28 936	S	11 054	1	1
		1997.. 38 727	499 687	26 358	S	12 369	X	X
3362	Motor vehicle body & trailer mfg	1998.. 118 322	1 359 823	78 954	S	39 368	1	4
		1997.. 123 516	1 390 678	84 291	S	39 225	X	X
33621	Motor vehicle body & trailer mfg	1998.. 118 322	1 359 823	78 954	S	39 368	1	4
		1997.. 123 516	1 390 678	84 291	S	39 225	X	X
336211	Motor vehicle body mfg	1998.. 46 990	515 092	30 815	S	16 175	2	8
		1997.. 55 874	598 885	38 727	S	17 147	X	X
336212	Truck trailer mfg	1998.. 33 028	425 162	23 765	S	9 262	2	3
		1997.. 29 945	382 494	21 295	S	8 650	X	X
336213	Motor home mfg	1998.. 13 009	154 974	8 700	S	4 308	1	2
		1997.. 13 664	154 407	9 061	S	4 603	X	X
336214	Travel trailer & camper mfg	1998.. 25 296	264 594	15 673	S	9 622	2	4
		1997.. 24 033	254 892	15 208	S	8 825	X	X
3363	Motor vehicle parts mfg	1998.. 1 740 537	25 730 482	1 331 974	S	408 563	1	1
		1997.. 1 865 851	26 694 268	1 415 792	S	450 059	X	X
33631	Motor vehicle gasoline engine & engine parts mfg	1998.. 260 200	4 155 744	208 746	S	51 454	1	1
		1997.. 294 340	4 122 305	223 506	S	70 834	X	X
336311	Carburetor, piston, piston ring, & valve mfg	1998.. 43 543	758 210	35 287	S	8 256	1	2
		1997.. 43 016	692 644	33 187	S	9 829	X	X
336312	Gasoline engine & engine parts mfg	1998.. 216 657	3 397 534	173 459	S	43 198	1	1
		1997.. 251 324	3 429 661	190 319	S	61 005	X	X

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			Purchased		C			E	C	E
			Quantity (1,000 kWh)	Cost (\$1,000)						
		A	B	C	D	E	C	E		
336	Transportation equipment mfg—Con.									
3363	Motor vehicle parts mfg—Con.									
33632	Motor vehicle electrical & electronic equipment mfg	1998.. 148 972	2 232 211	120 854	S	28 117	1	1		
		1997.. 158 556	2 290 670	127 971	S	30 585	X	X		
336321	Vehicular lighting equipment mfg	1998.. 31 985	548 024	26 774	S	5 212	1	1		
		1997.. 34 295	570 780	27 794	S	6 501	X	X		
336322	Other motor vehicle electrical & electronic equipment mfg	1998.. 116 986	1 684 187	94 081	S	22 906	1	1		
		1997.. 124 261	1 719 890	100 177	S	24 084	X	X		
33633	Motor vehicle steering & suspension component (except spring) mfg	1998.. 117 644	1 939 720	89 420	S	28 224	1	1		
		1997.. 124 756	1 981 742	93 713	S	31 043	X	X		
336330	Motor vehicle steering & suspension component (except spring) mfg	1998.. 117 644	1 939 720	89 420	S	28 224	1	1		
		1997.. 124 756	1 981 742	93 713	S	31 043	X	X		
33634	Motor vehicle brake system mfg	1998.. 97 012	1 557 332	77 422	S	19 590	1	1		
		1997.. 94 439	1 485 989	74 406	S	20 033	X	X		
336340	Motor vehicle brake system mfg	1998.. 97 012	1 557 332	77 422	S	19 590	1	1		
		1997.. 94 439	1 485 989	74 406	S	20 033	X	X		
33635	Motor vehicle transmission & power train parts mfg	1998.. 316 923	4 923 400	240 732	S	76 191	1	1		
		1997.. 318 903	4 757 585	238 574	S	80 329	X	X		
336350	Motor vehicle transmission & power train parts mfg	1998.. 316 923	4 923 400	240 732	S	76 191	1	1		
		1997.. 318 903	4 757 585	238 574	S	80 329	X	X		
33636	Motor vehicle seating & interior trim mfg	1998.. 60 014	837 642	46 524	S	13 490	2	1		
		1997.. 59 177	824 446	44 395	S	14 782	X	X		
336360	Motor vehicle seating & interior trim mfg	1998.. 60 014	837 642	46 524	S	13 490	2	1		
		1997.. 59 177	824 446	44 395	S	14 782	X	X		
33637	Motor vehicle metal stamping	1998.. 293 612	3 964 199	224 491	S	69 121	1	5		
		1997.. 341 401	4 789 432	271 294	S	70 107	X	X		
336370	Motor vehicle metal stamping	1998.. 293 612	3 964 199	224 491	S	69 121	1	5		
		1997.. 341 401	4 789 432	271 294	S	70 107	X	X		
33639	Other motor vehicle parts mfg	1998.. 446 160	6 120 235	323 784	S	122 376	1	1		
		1997.. 474 279	6 442 099	341 933	S	132 349	X	X		
336391	Motor vehicle air-conditioning mfg	1998.. 51 854	792 811	41 816	S	10 039	1	1		
		1997.. 56 636	1 043 198	40 019	S	12 617	X	X		
336399	All other motor vehicle parts mfg	1998.. 394 306	5 327 424	281 968	S	112 337	2	1		
		1997.. 417 643	5 398 901	297 914	S	119 729	X	X		
3364	Aerospace product & parts mfg	1998.. 814 269	11 167 217	633 496	S	180 772	1	2		
		1997.. 783 694	11 763 544	634 759	S	148 935	X	X		
33641	Aerospace product & parts mfg	1998.. 814 269	11 167 217	633 496	S	180 772	1	2		
		1997.. 783 694	11 763 544	634 759	S	148 935	X	X		
336411	Aircraft mfg	1998.. 253 734	3 323 175	176 679	S	77 055	1	1		
		1997.. 218 194	3 913 571	177 559	S	40 633	X	X		
336412	Aircraft engine & engine parts mfg	1998.. 179 156	2 350 381	145 482	S	33 673	3	1		
		1997.. 199 089	2 453 553	155 897	S	43 192	X	X		
336413	Other aircraft part & auxiliary equipment mfg	1998.. 259 067	3 645 632	208 889	S	50 178	1	6		
		1997.. 240 165	3 519 285	195 311	S	44 854	X	X		
336414	Guided missile & space vehicle mfg	1998.. 68 116	1 070 615	59 681	S	8 435	1	1		
		1997.. 70 095	1 070 297	61 172	S	8 923	X	X		
336415	Guided missile & space vehicle propulsion unit & parts mfg	1998.. 36 269	538 420	28 954	S	7 315	1	1		
		1997.. 40 854	588 957	32 539	S	8 315	X	X		
336419	Other guided missile & space vehicle parts & auxiliary equip mfg	1998.. 17 928	238 993	13 811	S	4 116	1	1		
		1997.. 15 297	217 881	12 281	S	3 016	X	X		
3365	Railroad rolling stock mfg	1998.. 57 857	594 531	34 521	S	23 336	1	1		
		1997.. 59 042	574 038	35 414	S	23 628	X	X		
33651	Railroad rolling stock mfg	1998.. 57 857	594 531	34 521	S	23 336	1	1		
		1997.. 59 042	574 038	35 414	S	23 628	X	X		
336510	Railroad rolling stock mfg	1998.. 57 857	594 531	34 521	S	23 336	1	1		
		1997.. 59 042	574 038	35 414	S	23 628	X	X		
3366	Ship & boat building	1998.. 142 890	2 041 155	111 472	S	31 418	1	2		
		1997.. 151 926	2 105 730	115 072	S	36 854	X	X		
33661	Ship & boat building	1998.. 142 890	2 041 155	111 472	S	31 418	1	2		
		1997.. 151 926	2 105 730	115 072	S	36 854	X	X		
336611	Ship building & repairing	1998.. 106 894	1 661 732	88 083	S	18 811	1	4		
		1997.. 116 510	1 731 770	92 670	S	23 840	X	X		
336612	Boat building	1998.. 35 996	379 423	23 389	D	12 607	1	2		
		1997.. 35 416	373 960	22 402	D	13 014	X	X		
3369	Other transportation equipment mfg	1998.. 59 807	716 141	41 163	S	18 644	1	6		
		1997.. 59 940	746 856	40 943	S	18 997	X	X		
33699	Other transportation equipment mfg	1998.. 59 807	716 141	41 163	S	18 644	1	6		
		1997.. 59 940	746 856	40 943	S	18 997	X	X		
336991	Motorcycle, bicycle, & parts mfg	1998.. 23 310	216 367	14 924	S	8 386	2	13		
		1997.. 25 249	285 151	16 640	S	8 609	X	X		
336992	Military armored vehicle, tank, & tank component mfg	1998.. 11 865	180 988	10 216	—	1 649	1	1		
		1997.. 12 199	183 305	10 226	—	1 973	X	X		
336999	All other transportation equipment mfg	1998.. 24 632	318 786	16 023	—	8 609	1	1		
		1997.. 22 492	278 400	14 077	—	8 415	X	X		
337	Furniture & related product mfg	1998.. 696 926	9 026 909	530 928	16 194	165 998	2	2		
		1997.. 686 244	8 767 786	509 480	16 152	176 764	X	X		
3371	Household & institutional furniture & kitchen cabinet mfg	1998.. 425 208	5 647 448	339 462	6 709	85 746	4	1		
		1997.. 403 307	5 284 720	312 076	5 195	91 231	X	X		
33711	Wood kitchen cabinet & counter top mfg	1998.. 113 005	1 382 131	87 919	1 591	25 086	11	2		
		1997.. 94 870	1 117 620	69 670	1 077	25 200	X	X		
337110	Wood kitchen cabinet & counter top mfg	1998.. 113 005	1 382 131	87 919	1 591	25 086	11	2		
		1997.. 94 870	1 117 620	69 670	1 077	25 200	X	X		

See footnotes at end of table.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
		A	B	C	D	E	C	E
337	Furniture & related product mfg—Con.							
3371	Household & institutional furniture & kitchen cabinet mfg—Con.							
33712	Household & institutional furniture mfg	1998.. 312 202	4 265 317	251 542	5 118	60 660	3	1
		1997.. 308 437	4 167 100	242 406	4 118	66 031	X	X
337121	Upholstered household furniture mfg	1998.. 58 701	793 870	49 574	D	9 127	12	2
		1997.. 50 226	658 479	39 960	D	10 266	X	X
337122	Nonupholstered wood household furniture mfg	1998.. 162 209	2 457 173	135 923	D	26 286	3	2
		1997.. 166 834	2 516 632	139 155	D	27 679	X	X
337124	Metal household furniture mfg	1998.. 26 839	280 301	17 265	—	9 574	8	4
		1997.. 23 492	227 658	14 578	—	8 914	X	X
337125	Household furniture (except wood & metal) mfg	1998.. 9 242	136 937	8 203	D	1 040	4	3
		1997.. 10 413	163 177	9 356	D	1 057	X	X
337127	Institutional furniture mfg	1998.. 49 482	534 957	35 970	—	13 512	3	3
		1997.. 52 116	536 719	35 042	—	17 074	X	X
337129	Wood television, radio, & sewing machine cabinet mfg	1998.. 5 729	62 080	4 608	—	1 122	2	14
		1997.. 5 356	64 435	4 315	—	1 041	X	X
3372	Office furniture (including fixtures) mfg	1998.. 240 639	3 024 757	168 368	9 485	72 271	1	4
		1997.. 250 752	3 118 302	173 188	10 957	77 564	X	X
33721	Office furniture (including fixtures) mfg	1998.. 240 639	3 024 757	168 368	9 485	72 271	1	4
		1997.. 250 752	3 118 302	173 188	10 957	77 564	X	X
337211	Wood office furniture mfg	1998.. 37 645	453 074	28 367	—	9 279	1	7
		1997.. 42 209	501 058	31 932	—	10 277	X	X
337212	Custom architectural woodwork & millwork mfg	1998.. 23 246	503 790	16 356	D	6 890	3	6
		1997.. 21 598	480 468	14 835	D	6 763	X	X
337214	Office furniture (except wood) mfg	1998.. 68 078	847 019	49 111	D	18 967	1	3
		1997.. 73 577	910 727	52 365	D	21 212	X	X
337215	Showcase, partition, shelving, & locker mfg	1998.. 111 669	1 220 874	74 533	D	37 135	2	8
		1997.. 113 368	1 226 049	74 056	D	39 312	X	X
3379	Other furniture related product mfg	1998.. 31 079	354 704	23 098	—	7 981	10	2
		1997.. 32 185	364 764	24 216	—	7 969	X	X
33791	Mattress mfg	1998.. 15 010	157 198	10 616	—	4 394	23	2
		1997.. 17 347	189 374	12 662	—	4 685	X	X
337910	Mattress mfg	1998.. 15 010	157 198	10 616	—	4 394	23	2
		1997.. 17 347	189 374	12 662	—	4 685	X	X
33792	Blind & shade mfg	1998.. 16 069	197 506	12 482	—	3 587	2	3
		1997.. 14 838	175 390	11 554	—	3 284	X	X
337920	Blind & shade mfg	1998.. 16 069	197 506	12 482	—	3 587	2	3
		1997.. 14 838	175 390	11 554	—	3 284	X	X
339	Miscellaneous mfg	1998.. 869 096	10 786 066	684 589	S	184 507	1	3
		1997.. 848 112	10 549 694	656 251	S	191 861	X	X
3391	Medical equipment & supplies mfg	1998.. 324 237	4 113 879	271 731	S	52 506	1	2
		1997.. 309 913	4 016 471	260 269	S	49 644	X	X
33911	Medical equipment & supplies mfg	1998.. 324 237	4 113 879	271 731	S	52 506	1	2
		1997.. 309 913	4 016 471	260 269	S	49 644	X	X
339111	Laboratory apparatus & furniture mfg	1998.. 18 385	214 403	14 360	—	4 025	3	12
		1997.. 20 890	239 832	15 332	—	5 558	X	X
339112	Surgical & medical instrument mfg	1998.. 130 710	1 650 561	108 463	S	22 248	3	1
		1997.. 125 622	1 688 262	107 507	S	18 115	X	X
339113	Surgical appliance & supplies mfg	1998.. 102 027	1 311 595	85 922	S	16 104	1	1
		1997.. 92 800	1 182 588	76 374	S	16 426	X	X
339114	Dental equipment & supplies mfg	1998.. 15 766	189 378	13 142	—	2 623	4	2
		1997.. 16 238	194 329	13 625	S	2 613	X	X
339115	Ophthalmic goods mfg	1998.. 33 591	445 878	29 599	—	3 993	1	2
		1997.. 34 476	446 658	30 127	—	4 349	X	X
339116	Dental laboratories	1998.. 23 759	S	S	—	S	4	24
		1997.. 19 887	S	S	—	S	X	X
3399	Other miscellaneous mfg	1998.. 544 858	6 672 187	412 858	—	132 001	1	4
		1997.. 538 199	6 533 223	395 982	—	142 217	X	X
33991	Jewelry & silverware mfg	1998.. 44 899	418 529	32 351	—	12 548	7	4
		1997.. 45 467	390 598	31 023	—	14 444	X	X
339911	Jewelry (except costume) mfg	1998.. 23 214	224 103	16 962	—	6 252	13	5
		1997.. 21 846	187 336	14 958	—	6 888	X	X
339912	Silverware & plated ware mfg	1998.. 6 490	86 516	4 459	—	2 032	1	12
		1997.. 6 663	90 710	4 706	—	1 957	X	X
339913	Jewelers' material & lapidary work mfg	1998.. 4 921	41 812	3 705	—	1 216	12	5
		1997.. 4 855	35 529	3 304	—	1 551	X	X
339914	Costume jewelry & novelty mfg	1998.. 10 273	66 097	7 225	—	3 048	5	9
		1997.. 12 103	77 023	8 055	—	4 048	X	X
33992	Sporting & athletic goods mfg	1998.. 84 993	1 005 070	60 997	—	23 996	2	4
		1997.. 93 799	1 075 875	64 809	—	28 990	X	X
339920	Sporting & athletic goods mfg	1998.. 84 993	1 005 070	60 997	—	23 996	2	4
		1997.. 93 799	1 075 875	64 809	—	28 990	X	X
33993	Doll, toy, & game mfg	1998.. 52 094	621 787	41 852	—	10 242	3	2
		1997.. 51 856	632 141	38 459	—	13 397	X	X
339931	Doll & stuffed toy mfg	1998.. 2 464	19 948	1 509	—	955	4	7
		1997.. 1 963	15 998	1 248	—	715	X	X
339932	Game, toy, & children's vehicle mfg	1998.. 49 630	601 839	40 343	—	9 287	3	2
		1997.. 49 893	616 143	37 211	—	12 682	X	X
33994	Office supplies (except paper) mfg	1998.. 46 242	559 983	36 807	—	9 435	3	12
		1997.. 38 666	490 589	30 070	—	8 596	X	X
339941	Pen & mechanical pencil mfg	1998.. 17 580	237 406	15 307	—	2 273	4	9
		1997.. 11 781	180 260	10 545	—	1 236	X	X
339942	Lead pencil & art good mfg	1998.. 13 616	140 963	9 876	—	3 741	1	1
		1997.. 11 479	139 523	8 997	—	2 482	X	X
339943	Marking device mfg	1998.. 5 943	72 381	4 900	—	1 043	2	47
		1997.. 6 251	70 700	4 787	—	1 464	X	X
339944	Carbon paper & inked ribbon mfg	1998.. 9 103	109 233	6 724	—	2 380	16	41
		1997.. 9 155	100 106	5 741	—	3 414	X	X

See footnotes at end of table.

Table 4. Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Cost of purchased fuels and electric energy (\$1,000)	Electric energy			Cost of purchased fuels (\$1,000)	Relative standard error of estimate ¹ (percent) for column—	
			Purchased		Generated less sold (1,000 kWh)		C	E
			Quantity (1,000 kWh)	Cost (\$1,000)				
			A	B	C		D	E
339	Miscellaneous mfg—Con.							
3399	Other miscellaneous mfg—Con.							
33995	Sign mfg	1998.. 76 079	1 116 152	57 624	—	18 455	6	27
		1997.. 81 703	1 109 096	58 224	—	23 479	X	X
339950	Sign mfg	1998.. 76 079	1 116 152	57 624	—	18 455	6	27
		1997.. 81 703	1 109 096	58 224	—	23 479	X	X
33999	All other miscellaneous mfg	1998.. 240 552	2 950 666	183 227	—	57 325	1	3
		1997.. 226 708	2 834 924	173 397	—	53 311	X	X
339991	Gasket, packing, & sealing device mfg	1998.. 92 313	1 183 897	73 699	—	18 614	2	6
		1997.. 85 059	1 158 997	69 146	—	15 913	X	X
339992	Musical instrument mfg	1998.. 14 991	145 225	10 994	—	3 997	6	24
		1997.. 13 035	129 947	9 409	—	3 626	X	X
339993	Fastener, button, needle, & pin mfg	1998.. 17 237	264 363	13 802	—	3 434	1	2
		1997.. 17 870	270 152	14 152	—	3 718	X	X
339994	Broom, brush, & mop mfg	1998.. 20 093	301 205	16 506	—	3 587	7	8
		1997.. 21 192	283 145	17 066	—	4 126	X	X
339995	Burial casket mfg	1998.. 12 852	156 723	8 301	—	4 551	1	1
		1997.. 12 333	158 792	8 194	—	4 139	X	X
339999	All other miscellaneous mfg	1998.. 83 066	899 253	59 925	—	23 142	1	1
		1997.. 77 219	833 891	55 430	—	21 789	X	X

¹Description of relative standard error of estimate is given in Appendix B. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note: 1997 data may differ from that published in the 1997 Census of Manufactures final industry series because of changes encountered in subsequent 1997 census review or revisions discovered during 1998 Annual Survey of Manufactures review.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard error of estimate ¹ (percent) for column—
			(\$1,000)	(\$1,000)	(\$1,000)	
			A	B	C	A
31-33	Manufacturing	1998..	151 904 983	23 692 077	128 212 906	1
		1997..	151 734 631	23 347 469	128 387 162	X
311	Food mfg	1998..	11 373 153	2 259 593	9 113 560	1
		1997..	10 797 753	2 152 858	8 644 895	X
3111	Animal food mfg	1998..	573 070	118 362	454 708	8
		1997..	552 180	122 559	429 621	X
31111	Animal food mfg	1998..	573 070	118 362	454 708	8
		1997..	552 180	122 559	429 621	X
311111	Dog & cat food mfg	1998..	210 727	26 517	184 211	5
		1997..	261 722	45 978	215 744	X
311119	Other animal food mfg	1998..	362 343	91 846	270 498	13
		1997..	290 458	76 581	213 877	X
3112	Grain & oilseed milling	1998..	1 777 595	328 313	1 449 282	1
		1997..	1 517 801	261 708	1 256 093	X
31121	Flour milling & malt mfg	1998..	259 396	62 676	196 719	5
		1997..	286 597	77 002	209 595	X
311211	Flour milling	1998..	182 759	43 725	139 034	4
		1997..	198 684	58 838	139 846	X
311212	Rice milling	1998..	24 646	2 852	21 793	16
		1997..	45 981	6 606	39 375	X
311213	Malt mfg	1998..	51 991	16 099	35 893	21
		1997..	41 932	11 558	30 374	X
31122	Starch & vegetable fats & oils mfg	1998..	1 156 279	216 902	939 377	2
		1997..	981 833	157 109	824 724	X
311221	Wet corn milling	1998..	424 512	66 484	358 028	1
		1997..	540 906	71 613	469 293	X
311222	Soybean processing	1998..	285 073	37 289	247 785	3
		1997..	188 422	45 212	143 210	X
311223	Other oilseed processing	1998..	98 876	29 052	69 825	10
		1997..	83 999	12 731	71 268	X
311225	Fats & oils refining & blending	1998..	347 818	84 078	263 740	5
		1997..	168 506	27 553	140 953	X
31123	Breakfast cereal mfg	1998..	361 920	48 735	313 185	2
		1997..	249 371	27 597	221 774	X
311230	Breakfast cereal mfg	1998..	361 920	48 735	313 185	2
		1997..	249 371	27 597	221 774	X
3113	Sugar & confectionery product mfg	1998..	911 414	117 595	793 818	6
		1997..	832 514	146 690	685 824	X
31131	Sugar mfg	1998..	316 640	33 550	283 090	16
		1997..	280 354	41 539	238 815	X
311311	Sugarcane mills	1998..	60 812	6 838	53 974	28
		1997..	68 315	10 587	57 728	X
311312	Cane sugar refining	1998..	32 682	3 033	29 649	1
		1997..	44 528	4 398	40 130	X
311313	Beet sugar mfg	1998..	223 147	23 679	199 468	22
		1997..	167 511	26 554	140 957	X
31132	Chocolate & confectionery mfg from cacao beans	1998..	116 988	17 147	99 841	8
		1997..	69 718	10 663	59 055	X
311320	Chocolate & confectionery mfg from cacao beans	1998..	116 988	17 147	99 841	8
		1997..	69 718	10 663	59 055	X
31133	Confectionery mfg from purchased chocolate	1998..	277 037	37 177	239 860	3
		1997..	272 269	56 574	215 695	X
311330	Confectionery mfg from purchased chocolate	1998..	277 037	37 177	239 860	3
		1997..	272 269	56 574	215 695	X
31134	Nonchocolate confectionery mfg	1998..	200 748	29 721	171 027	6
		1997..	210 173	37 914	172 259	X
311340	Nonchocolate confectionery mfg	1998..	200 748	29 721	171 027	6
		1997..	210 173	37 914	172 259	X
3114	Fruit & vegetable preserving & specialty food mfg	1998..	1 601 480	274 492	1 326 988	3
		1997..	1 660 374	305 223	1 355 151	X
31141	Frozen food mfg	1998..	768 812	160 411	608 401	2
		1997..	758 764	139 797	618 967	X
311411	Frozen fruit, juice, & vegetable mfg	1998..	448 387	113 881	334 506	4
		1997..	403 492	59 796	343 696	X
311412	Frozen specialty food mfg	1998..	320 425	46 530	273 895	2
		1997..	355 272	80 001	275 271	X
31142	Fruit & vegetable canning, pickling, & drying	1998..	832 668	114 081	718 587	6
		1997..	901 610	165 426	736 184	X
311421	Fruit & vegetable canning	1998..	455 886	61 509	394 377	4
		1997..	534 195	86 348	447 847	X
311422	Specialty canning	1998..	224 811	26 576	198 235	14
		1997..	219 818	48 566	171 252	X
311423	Dried & dehydrated food mfg	1998..	151 971	25 996	125 975	21
		1997..	147 597	30 512	117 085	X
3115	Dairy product mfg	1998..	1 489 051	340 205	1 148 846	3
		1997..	1 351 987	302 325	1 049 662	X
31151	Dairy product (except frozen) mfg	1998..	1 257 295	294 627	962 668	3
		1997..	1 192 610	267 111	925 499	X
311511	Fluid milk mfg	1998..	469 525	131 100	338 426	7
		1997..	428 346	100 145	328 201	X
311512	Creamery butter mfg	1998..	10 453	1 436	9 018	40
		1997..	8 522	637	7 885	X
311513	Cheese mfg	1998..	421 126	86 536	334 591	3
		1997..	485 890	91 437	394 453	X
311514	Dry, condensed, & evaporated dairy product mfg	1998..	356 190	75 556	280 633	7
		1997..	269 852	74 892	194 960	X
31152	Ice cream & frozen dessert mfg	1998..	231 757	45 578	186 179	12
		1997..	159 377	35 214	124 163	X
311520	Ice cream & frozen dessert mfg	1998..	231 757	45 578	186 179	12
		1997..	159 377	35 214	124 163	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard error of estimate ¹ (percent) for column—
			(\$1,000)	(\$1,000)	(\$1,000)	
			A	B	C	A
311	Food mfg—Con.					
3116	Meat product mfg	1998..	1 687 112	383 111	1 304 000	2
		1997..	1 802 274	418 859	1 383 415	X
31161	Animal slaughtering & processing	1998..	1 687 112	383 111	1 304 000	2
		1997..	1 802 274	418 859	1 383 415	X
311611	Animal (except poultry) slaughtering	1998..	436 887	96 962	339 924	2
		1997..	536 605	124 443	412 162	X
311612	Meat processed from carcasses	1998..	487 295	118 107	369 187	4
		1997..	527 238	145 145	382 093	X
311613	Rendering & meat byproduct processing	1998..	106 389	25 621	80 768	12
		1997..	114 353	13 328	101 025	X
311615	Poultry processing	1998..	656 541	142 420	514 120	1
		1997..	624 078	135 943	488 135	X
3117	Seafood product preparation & packaging	1998..	139 861	21 179	118 682	12
		1997..	177 424	29 777	147 647	X
31171	Seafood product preparation & packaging	1998..	139 861	21 179	118 682	12
		1997..	177 424	29 777	147 647	X
311711	Seafood canning	1998..	14 958	1 925	13 032	9
		1997..	21 599	4 380	17 219	X
311712	Fresh & frozen seafood processing	1998..	124 903	19 253	105 650	13
		1997..	155 825	25 397	130 428	X
3118	Bakeries & tortilla mfg	1998..	1 560 445	300 338	1 260 107	5
		1997..	1 442 923	289 334	1 153 589	X
31181	Bread & bakery product mfg	1998..	976 075	199 316	776 759	6
		1997..	889 654	203 838	685 816	X
311811	Retail bakeries	1998..	81 411	17 135	64 276	6
		1997..	75 864	15 374	60 490	X
311812	Commercial bakeries	1998..	793 070	173 403	619 667	7
		1997..	725 028	166 332	558 696	X
311813	Frozen cakes, pies, & other pastries mfg	1998..	101 595	8 778	92 817	9
		1997..	88 762	22 132	66 630	X
31182	Cookie, cracker, & pasta mfg	1998..	543 413	93 526	449 887	8
		1997..	503 891	77 224	426 667	X
311821	Cookie & cracker mfg	1998..	343 695	38 307	305 388	12
		1997..	301 805	28 782	273 023	X
311822	Flour mixes & dough mfg from purchased flour	1998..	170 226	52 880	117 346	2
		1997..	159 035	43 862	115 173	X
311823	Dry pasta mfg	1998..	29 493	2 340	27 153	1
		1997..	43 051	4 580	38 471	X
31183	Tortilla mfg	1998..	40 956	7 496	33 460	18
		1997..	49 378	8 272	41 106	X
311830	Tortilla mfg	1998..	40 956	7 496	33 460	18
		1997..	49 378	8 272	41 106	X
3119	Other food mfg	1998..	1 633 124	375 996	1 257 129	6
		1997..	1 460 276	276 383	1 183 893	X
31191	Snack food mfg	1998..	770 377	193 394	576 983	7
		1997..	493 926	76 508	417 418	X
311911	Roasted nuts & peanut butter mfg	1998..	102 911	19 178	83 733	12
		1997..	84 526	10 387	74 139	X
311919	Other snack food mfg	1998..	667 466	174 216	493 250	8
		1997..	409 400	66 121	343 279	X
31192	Coffee & tea mfg	1998..	138 087	12 071	126 016	3
		1997..	166 837	11 979	154 858	X
311920	Coffee & tea mfg	1998..	138 087	12 071	126 016	3
		1997..	166 837	11 979	154 858	X
31193	Flavoring syrup & concentrate mfg	1998..	83 277	13 083	70 194	1
		1997..	144 097	48 101	95 996	X
311930	Flavoring syrup & concentrate mfg	1998..	83 277	13 083	70 194	1
		1997..	144 097	48 101	95 996	X
31194	Seasoning & dressing mfg	1998..	204 595	45 096	159 499	17
		1997..	255 205	60 051	195 154	X
311941	Mayonnaise, dressing, & other prepared sauce mfg	1998..	85 441	21 470	63 971	8
		1997..	139 688	21 136	118 552	X
311942	Spice & extract mfg	1998..	119 154	23 626	95 528	28
		1997..	115 517	38 915	76 602	X
31199	All other food mfg	1998..	436 789	112 352	324 437	15
		1997..	400 211	79 744	320 467	X
311991	Perishable prepared food mfg	1998..	160 557	34 002	126 555	41
		1997..	126 107	21 870	104 237	X
311999	All other miscellaneous food mfg	1998..	276 232	78 350	197 882	5
		1997..	274 104	57 874	216 230	X
312	Beverage & tobacco product mfg	1998..	2 555 570	491 981	2 063 589	6
		1997..	3 036 233	423 001	2 613 232	X
3121	Beverage mfg	1998..	2 206 881	418 726	1 788 155	7
		1997..	2 317 663	352 859	1 964 804	X
31211	Soft drink & ice mfg	1998..	951 062	140 053	811 009	5
		1997..	914 074	127 550	786 524	X
312111	Soft drink mfg	1998..	879 083	126 939	752 144	5
		1997..	832 963	110 674	722 289	X
312112	Bottled water mfg	1998..	50 751	11 593	39 158	23
		1997..	47 508	12 653	34 855	X
312113	Ice mfg	1998..	21 228	1 522	19 706	31
		1997..	33 603	4 223	29 380	X
31212	Breweries	1998..	785 065	168 450	616 615	17
		1997..	977 805	140 780	837 025	X
312120	Breweries	1998..	785 065	168 450	616 615	17
		1997..	977 805	140 780	837 025	X
31213	Wineries	1998..	412 855	94 303	318 552	12
		1997..	349 844	67 571	282 273	X
312130	Wineries	1998..	412 855	94 303	318 552	12
		1997..	349 844	67 571	282 273	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard error of estimate ¹ (percent) for column—
			(\$1,000)	(\$1,000)	(\$1,000)	
			A	B	C	A
312	Beverage & tobacco product mfg—Con.					
3121	Beverage mfg—Con.					
31214	Distilleries	1998..	57 899	15 920	41 979	8
		1997..	75 940	16 958	58 982	X
312140	Distilleries	1998..	57 899	15 920	41 979	8
		1997..	75 940	16 958	58 982	X
3122	Tobacco mfg.....	1998..	348 689	73 255	275 434	1
		1997..	718 570	70 142	648 428	X
31221	Tobacco stemming & redrying.....	1998..	28 059	2 423	25 636	1
		1997..	26 637	6 061	20 576	X
312210	Tobacco stemming & redrying.....	1998..	28 059	2 423	25 636	1
		1997..	26 637	6 061	20 576	X
31222	Tobacco product mfg	1998..	320 630	70 832	249 798	1
		1997..	691 933	64 081	627 852	X
312221	Cigarette mfg	1998..	276 333	56 318	220 015	1
		1997..	622 688	39 248	583 440	X
312229	Other tobacco product mfg	1998..	44 297	14 514	29 783	1
		1997..	69 245	24 833	44 412	X
313	Textile mills	1998..	2 421 548	307 372	2 114 177	2
		1997..	2 699 793	385 603	2 314 190	X
3131	Fiber, yarn, & thread mills	1998..	539 365	100 460	438 905	4
		1997..	543 157	73 983	469 174	X
31311	Fiber, yarn, & thread mills	1998..	539 365	100 460	438 905	4
		1997..	543 157	73 983	469 174	X
313111	Yarn spinning mills	1998..	369 269	65 713	303 556	3
		1997..	438 020	57 196	380 824	X
313112	Yarn texturing, throwing, & twisting mills	1998..	154 252	34 154	120 098	13
		1997..	86 329	14 790	71 539	X
313113	Thread mills	1998..	15 844	593	15 251	3
		1997..	18 808	1 997	16 811	X
3132	Fabric mills	1998..	1 364 708	130 662	1 234 046	2
		1997..	1 492 490	171 205	1 321 285	X
31321	Broadwoven fabric mills	1998..	855 086	84 836	770 251	3
		1997..	894 514	105 056	789 458	X
313210	Broadwoven fabric mills	1998..	855 086	84 836	770 251	3
		1997..	894 514	105 056	789 458	X
31322	Narrow fabric mills & schiffli machine embroidery	1998..	77 313	13 735	63 578	11
		1997..	78 465	13 734	64 731	X
313221	Narrow fabric mills	1998..	72 428	13 437	58 991	11
		1997..	72 615	12 794	59 821	X
313222	Schiffli machine embroidery.....	1998..	4 886	298	4 587	32
		1997..	5 850	940	4 910	X
31323	Nonwoven fabric mills	1998..	245 261	14 512	230 749	8
		1997..	300 325	23 988	276 337	X
313230	Nonwoven fabric mills	1998..	245 261	14 512	230 749	8
		1997..	300 325	23 988	276 337	X
31324	Knit fabric mills	1998..	187 048	17 580	169 469	3
		1997..	219 186	28 427	190 759	X
313241	Weft knit fabric mills	1998..	89 461	10 958	78 503	6
		1997..	106 429	11 314	95 115	X
313249	Other knit fabric & lace mills	1998..	97 587	6 622	90 966	4
		1997..	112 757	17 113	95 644	X
3133	Textile & fabric finishing & fabric coating mills	1998..	517 475	76 250	441 225	5
		1997..	664 146	140 415	523 731	X
31331	Textile & fabric finishing mills.....	1998..	469 789	73 947	395 842	5
		1997..	589 756	128 195	461 561	X
313311	Broadwoven fabric finishing mills	1998..	292 329	48 780	243 549	7
		1997..	311 083	45 775	265 308	X
313312	Textile & fabric finishing mills.....	1998..	177 460	25 167	152 292	5
		1997..	278 673	82 420	196 253	X
31332	Fabric coating mills	1998..	47 686	2 303	45 383	31
		1997..	74 390	12 220	62 170	X
313320	Fabric coating mills	1998..	47 686	2 303	45 383	31
		1997..	74 390	12 220	62 170	X
314	Textile product mills.....	1998..	722 981	132 461	590 520	7
		1997..	718 975	126 369	592 606	X
3141	Textile furnishings mills.....	1998..	380 643	75 596	305 046	5
		1997..	357 803	69 359	288 444	X
31411	Carpet & rug mills	1998..	224 888	42 752	182 135	4
		1997..	209 678	38 102	171 576	X
314110	Carpet & rug mills	1998..	224 888	42 752	182 135	4
		1997..	209 678	38 102	171 576	X
31412	Curtain & linen mills.....	1998..	155 755	32 844	122 911	12
		1997..	148 125	31 257	116 868	X
314121	Curtain & drapery mills	1998..	28 640	6 144	22 497	8
		1997..	32 750	7 599	25 151	X
314129	Other household textile product mills	1998..	127 114	26 700	100 414	14
		1997..	115 375	23 658	91 717	X
3149	Other textile product mills.....	1998..	342 339	56 865	285 474	14
		1997..	361 172	57 010	304 162	X
31491	Textile bag & canvas mills	1998..	49 305	4 120	45 185	13
		1997..	63 603	6 524	57 079	X
314911	Textile bag mills	1998..	16 171	1 857	14 314	22
		1997..	19 062	3 304	15 758	X
314912	Canvas & related product mills	1998..	33 134	2 263	30 871	16
		1997..	44 541	3 220	41 321	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard error of estimate ¹ (percent) for column—
			(\$1,000)	(\$1,000)	(\$1,000)	
			A	B	C	A
314	Textile product mills—Con.					
3149	Other textile product mills—Con.					
31499	All other textile product mills	1998..	293 034	52 745	240 289	16
		1997..	297 569	50 486	247 083	X
314991	Rope, cordage, & twine mills	1998..	18 267	2 152	16 115	21
		1997..	25 018	6 773	18 245	X
314992	Tire cord & tire fabric mills	1998..	47 422	5 978	41 444	8
		1997..	66 792	11 136	55 656	X
314999	All other miscellaneous textile product mills	1998..	227 344	44 614	182 730	21
		1997..	205 759	32 577	173 182	X
315	Apparel mfg	1998..	1 055 481	196 926	858 555	2
		1997..	973 556	232 153	741 403	X
3151	Apparel knitting mills	1998..	327 701	31 737	295 965	5
		1997..	242 543	33 573	208 970	X
31511	Hosiery & sock mills	1998..	230 482	7 071	223 411	1
		1997..	131 199	20 364	110 835	X
315111	Sheer hosiery mills	1998..	19 354	1 782	17 573	10
		1997..	34 759	3 623	31 136	X
315119	Other hosiery & sock mills	1998..	211 127	5 289	205 838	1
		1997..	96 440	16 741	79 699	X
31519	Other apparel knitting mills	1998..	97 220	24 666	72 554	18
		1997..	111 344	13 209	98 135	X
315191	Outerwear knitting mills	1998..	80 016	22 709	57 307	22
		1997..	93 099	10 198	82 901	X
315192	Underwear & nightwear knitting mills	1998..	17 204	1 957	15 247	3
		1997..	18 245	3 011	15 234	X
3152	Cut & sew apparel mfg	1998..	640 697	153 621	487 076	2
		1997..	631 345	180 315	451 030	X
31521	Cut & sew apparel contractors	1998..	121 163	30 164	90 999	8
		1997..	144 250	33 347	110 903	X
315211	Men's & boys' cut & sew apparel contractors	1998..	47 120	11 660	35 461	15
		1997..	30 403	5 991	24 412	X
315212	Women's, girls', & infants' cut & sew apparel contractors	1998..	74 042	18 504	55 538	8
		1997..	113 847	27 356	86 491	X
31522	Men's & boys' cut & sew apparel mfg	1998..	192 300	39 733	152 566	3
		1997..	205 239	50 623	154 616	X
315221	Men's & boys' cut & sew underwear & nightwear mfg	1998..	8 529	3 412	5 116	21
		1997..	7 813	1 362	6 451	X
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg	1998..	15 617	4 655	10 963	20
		1997..	16 300	3 591	12 709	X
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg	1998..	63 688	12 373	51 316	4
		1997..	57 163	10 116	47 047	X
315224	Men's & boys' cut & sew trouser, slack, & jean mfg	1998..	68 450	12 763	55 687	2
		1997..	52 313	10 184	42 129	X
315225	Men's & boys' cut & sew work clothing mfg	1998..	19 501	1 736	17 765	9
		1997..	29 916	11 972	17 944	X
315228	Men's & boys' cut & sew other outerwear mfg	1998..	16 515	4 794	11 721	7
		1997..	41 734	13 398	28 336	X
31523	Women's & girls' cut & sew apparel mfg	1998..	286 285	79 758	206 527	2
		1997..	253 347	89 121	164 226	X
315231	Women's & girls' cut/sew lingerie & nightwear mfg	1998..	19 790	3 730	16 060	6
		1997..	20 798	5 595	15 203	X
315232	Women's & girls' cut & sew blouse & shirt mfg	1998..	109 558	21 781	87 777	1
		1997..	31 287	7 058	24 229	X
315233	Women's & girls' cut & sew dress mfg	1998..	80 599	30 689	49 910	7
		1997..	45 763	14 130	31 633	X
315234	Women's & girls' cut & sew suit, coat, skirt mfg	1998..	24 762	14 212	10 550	6
		1997..	22 265	6 897	15 368	X
315239	Women's & girls' cut & sew other outerwear mfg	1998..	51 576	9 345	42 231	5
		1997..	133 234	55 441	77 793	X
31529	Other cut & sew apparel mfg	1998..	40 949	3 967	36 983	10
		1997..	28 509	7 224	21 285	X
315291	Infants' cut & sew apparel mfg	1998..	22 601	2 452	20 149	1
		1997..	7 612	1 717	5 895	X
315292	Fur & leather apparel mfg	1998..	1 652	262	1 391	41
		1997..	3 511	326	3 185	X
315299	All other cut & sew apparel mfg	1998..	16 696	1 253	15 443	24
		1997..	17 386	5 181	12 205	X
3159	Apparel accessories & other apparel mfg	1998..	87 083	11 569	75 514	14
		1997..	99 668	18 265	81 403	X
31599	Apparel accessories & other apparel mfg	1998..	87 083	11 569	75 514	14
		1997..	99 668	18 265	81 403	X
315991	Hat, cap, & millinery mfg	1998..	15 574	3 014	12 560	11
		1997..	18 909	4 938	13 971	X
315992	Glove & mitten mfg	1998..	8 058	281	7 777	9
		1997..	7 684	1 163	6 521	X
315993	Men's & boys' neckwear mfg	1998..	2 221	71	2 150	36
		1997..	3 623	403	3 220	X
315999	Other apparel accessories & other apparel mfg	1998..	61 230	8 203	53 027	20
		1997..	69 452	11 761	57 691	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard
			(\$1,000)	(\$1,000)	(\$1,000)	error of estimate ¹ (percent) for column—
			A	B	C	A
316	Leather & allied product mfg	1998..	136 946	22 986	113 960	7
		1997..	170 721	24 303	146 418	X
3161	Leather & hide tanning & finishing	1998..	52 471	9 160	43 311	17
		1997..	63 091	8 269	54 822	X
31611	Leather & hide tanning & finishing	1998..	52 471	9 160	43 311	17
		1997..	63 091	8 269	54 822	X
316110	Leather & hide tanning & finishing	1998..	52 471	9 160	43 311	17
		1997..	63 091	8 269	54 822	X
3162	Footwear mfg	1998..	45 182	9 853	35 329	8
		1997..	54 392	9 187	45 205	X
31621	Footwear mfg	1998..	45 182	9 853	35 329	8
		1997..	54 392	9 187	45 205	X
316211	Rubber & plastics footwear mfg	1998..	9 169	1 718	7 451	5
		1997..	19 850	3 736	16 114	X
316212	House slipper mfg	1998..	1 115	86	1 029	27
		1997..	2 247	352	1 895	X
316213	Men's footwear (except athletic) mfg	1998..	25 181	6 283	18 898	10
		1997..	23 244	3 855	19 389	X
316214	Women's footwear (except athletic) mfg	1998..	6 723	1 351	5 372	32
		1997..	5 162	767	4 395	X
316219	Other footwear mfg	1998..	2 994	494	2 580	27
		1997..	3 889	477	3 412	X
3169	Other leather & allied product mfg	1998..	39 292	3 973	35 320	6
		1997..	53 238	6 847	46 391	X
31699	Other leather & allied product mfg	1998..	39 292	3 973	35 320	6
		1997..	53 238	6 847	46 391	X
316991	Luggage mfg	1998..	18 211	2 523	15 687	5
		1997..	18 943	3 163	15 780	X
316992	Women's handbag & purse mfg	1998..	2 574	494	2 080	40
		1997..	8 396	743	7 653	X
316993	Personal leather good (except women's handbag & purse) mfg	1998..	4 363	587	3 776	26
		1997..	5 010	363	4 647	X
316999	All other leather good mfg	1998..	14 145	368	13 777	13
		1997..	20 889	2 578	18 311	X
321	Wood product mfg	1998..	2 762 847	530 442	2 232 405	3
		1997..	2 878 580	545 612	2 332 968	X
3211	Sawmills & wood preservation	1998..	1 085 185	143 582	941 603	5
		1997..	1 162 953	176 015	986 938	X
32111	Sawmills & wood preservation	1998..	1 085 185	143 582	941 603	5
		1997..	1 162 953	176 015	986 938	X
321113	Sawmills	1998..	1 007 346	120 636	886 711	5
		1997..	1 081 383	153 019	928 364	X
321114	Wood preservation	1998..	77 839	22 947	54 892	22
		1997..	81 570	22 996	58 574	X
3212	Veneer, plywood, & engineered wood product mfg ..	1998..	666 511	114 259	552 252	4
		1997..	764 186	99 382	664 804	X
32121	Veneer, plywood, & engineered wood product mfg	1998..	666 511	114 259	552 252	4
		1997..	764 186	99 382	664 804	X
321211	Hardwood veneer & plywood mfg	1998..	74 990	21 379	53 611	30
		1997..	72 039	11 706	60 333	X
321212	Softwood veneer & plywood mfg	1998..	130 184	19 874	110 311	5
		1997..	163 510	12 566	150 944	X
321213	Engineered wood member (except truss) mfg ..	1998..	69 130	13 588	55 542	1
		1997..	53 742	18 019	35 723	X
321214	Truss mfg	1998..	99 717	23 300	76 417	15
		1997..	85 217	17 497	67 720	X
321219	Reconstituted wood product mfg	1998..	292 490	36 118	256 372	1
		1997..	389 678	39 594	350 084	X
3219	Other wood product mfg	1998..	1 011 152	272 601	738 551	5
		1997..	951 441	270 215	681 226	X
32191	Millwork	1998..	538 898	113 848	425 050	8
		1997..	473 647	92 724	380 923	X
321911	Wood window & door mfg	1998..	227 880	55 181	172 699	9
		1997..	207 621	40 851	166 770	X
321912	Cut stock, resawing lumber, & planing	1998..	208 174	37 985	170 188	18
		1997..	161 273	29 406	131 867	X
321918	Other millwork (including flooring)	1998..	102 845	20 681	82 163	11
		1997..	104 753	22 467	82 286	X
32192	Wood container & pallet mfg	1998..	136 193	22 967	113 227	9
		1997..	130 247	24 342	105 905	X
321920	Wood container & pallet mfg	1998..	136 193	22 967	113 227	9
		1997..	130 247	24 342	105 905	X
32199	All other wood product mfg	1998..	336 060	135 787	200 274	7
		1997..	347 547	153 149	194 398	X
321991	Manufactured home (mobile home) mfg	1998..	134 177	87 001	47 175	15
		1997..	141 500	81 832	59 668	X
321992	Prefabricated wood building mfg	1998..	66 369	27 907	38 462	14
		1997..	56 149	16 850	39 299	X
321999	All other miscellaneous wood product mfg	1998..	135 515	20 879	114 636	7
		1997..	149 898	54 467	95 431	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard error of estimate ¹ (percent) for column—
			(\$1,000)	(\$1,000)	(\$1,000)	
			A	B	C	A
322	Paper mfg	1998..	8 517 867	689 400	7 828 466	4
		1997..	8 617 345	775 650	7 841 695	X
3221	Pulp, paper, & paperboard mills	1998..	5 676 232	333 574	5 342 658	5
		1997..	5 672 040	424 830	5 247 210	X
32211	Pulp mills	1998..	473 075	12 870	460 205	5
		1997..	469 403	28 765	440 638	X
322110	Pulp mills	1998..	473 075	12 870	460 205	5
		1997..	469 403	28 765	440 638	X
32212	Paper mills	1998..	3 788 260	226 602	3 561 657	8
		1997..	3 590 824	278 173	3 312 651	X
322121	Paper (except newsprint) mills	1998..	3 180 502	208 518	2 971 984	9
		1997..	3 226 408	251 159	2 975 249	X
322122	Newsprint mills	1998..	607 757	18 085	589 673	2
		1997..	364 416	27 014	337 402	X
32213	Paperboard mills	1998..	1 414 897	94 101	1 320 797	3
		1997..	1 611 813	117 892	1 493 921	X
322130	Paperboard mills	1998..	1 414 897	94 101	1 320 797	3
		1997..	1 611 813	117 892	1 493 921	X
3222	Converted paper product mfg	1998..	2 841 635	355 827	2 485 808	7
		1997..	2 945 305	350 820	2 594 485	X
32221	Paperboard container mfg	1998..	1 544 390	208 873	1 335 517	13
		1997..	1 573 025	220 343	1 352 682	X
322211	Corrugated & solid fiber box mfg	1998..	966 548	127 321	839 227	20
		1997..	963 562	123 823	839 739	X
322212	Folding paperboard box mfg	1998..	398 612	61 495	337 117	9
		1997..	451 324	65 205	386 119	X
322213	Setup paperboard box mfg	1998..	S	S	S	S
		1997..	21 695	2 303	19 392	X
322214	Fiber can, tube, drum, & similar products mfg ..	1998..	62 748	7 827	54 921	19
		1997..	69 023	20 539	48 484	X
322215	Nonfolding sanitary food container mfg	1998..	110 075	11 767	98 308	4
		1997..	67 421	8 473	58 948	X
32222	Paper bag & coated & treated paper mfg	1998..	635 092	95 431	539 662	2
		1997..	570 317	45 175	525 142	X
322221	Coated & laminated packaging paper & plastics film mfg	1998..	33 955	10 531	23 424	25
		1997..	46 600	4 725	41 875	X
322222	Coated & laminated paper mfg	1998..	469 489	64 556	404 934	2
		1997..	368 500	28 414	340 086	X
322223	Plastics, foil, & coated paper bag mfg	1998..	19 071	2 070	17 001	17
		1997..	16 620	1 337	15 283	X
322224	Uncoated paper & multiwall bag mfg	1998..	59 582	11 648	47 934	3
		1997..	86 504	4 463	82 041	X
322225	Laminated aluminum foil mfg for flexible packaging uses	1998..	34 076	1 552	32 524	2
		1997..	36 925	3 834	33 091	X
322226	Surface-coated paperboard mfg	1998..	18 920	5 074	13 846	23
		1997..	15 168	2 402	12 766	X
32223	Stationery product mfg	1998..	186 987	16 496	170 491	13
		1997..	247 912	33 258	214 654	X
322231	Die-cut paper & paperboard office supplies mfg	1998..	62 134	3 982	58 152	25
		1997..	55 783	7 469	48 314	X
322232	Envelope mfg	1998..	96 926	8 895	88 031	20
		1997..	147 787	21 165	126 622	X
322233	Stationery, tablet, & related product mfg	1998..	27 927	3 619	24 308	9
		1997..	44 342	4 624	39 718	X
32229	Other converted paper product mfg	1998..	475 165	35 027	440 138	4
		1997..	554 051	52 044	502 007	X
322291	Sanitary paper product mfg	1998..	378 786	21 117	357 669	3
		1997..	434 769	34 483	400 286	X
322299	All other converted paper product mfg	1998..	96 379	13 910	82 469	13
		1997..	119 282	17 561	101 721	X
323	Printing & related support activities	1998..	4 761 451	585 824	4 175 627	4
		1997..	5 065 924	722 674	4 343 250	X
3231	Printing & related support activities	1998..	4 761 451	585 824	4 175 627	4
		1997..	5 065 924	722 674	4 343 250	X
32311	Printing	1998..	4 397 813	532 319	3 865 495	4
		1997..	4 715 068	695 179	4 019 889	X
323110	Commercial lithographic printing	1998..	2 718 840	298 103	2 420 738	5
		1997..	3 009 216	435 600	2 573 616	X
323111	Commercial gravure printing	1998..	280 311	50 693	229 618	10
		1997..	252 795	42 133	210 662	X
323112	Commercial flexographic printing	1998..	219 791	20 753	199 038	10
		1997..	209 901	40 963	168 938	X
323113	Commercial screen printing	1998..	249 712	47 846	201 866	10
		1997..	265 213	54 618	210 595	X
323114	Quick printing	1998..	160 771	14 688	146 083	15
		1997..	193 724	16 162	177 562	X
323115	Digital printing	1998..	26 132	4 731	21 401	58
		1997..	27 701	3 625	24 076	X
323116	Manifold business form printing	1998..	192 402	14 344	178 058	10
		1997..	258 598	35 588	223 010	X
323117	Book printing	1998..	302 778	37 125	265 653	10
		1997..	289 952	34 668	255 284	X
323118	Blankbook, looseleaf binder, & device mfg	1998..	130 035	25 603	104 432	45
		1997..	82 926	11 001	71 925	X
323119	Other commercial printing	1998..	117 041	18 434	98 607	12
		1997..	125 042	20 821	104 221	X
32312	Support activities for printing	1998..	363 638	53 506	310 132	16
		1997..	350 856	27 495	323 361	X
323121	Tradebinding & related work	1998..	89 574	5 121	84 453	15
		1997..	89 559	6 636	82 923	X
323122	Prepress services	1998..	274 064	48 385	225 679	20
		1997..	261 297	20 859	240 438	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard error of estimate ¹ (percent) for column—
			(\$1,000)	(\$1,000)	(\$1,000)	
			A	B	C	A
324	Petroleum & coal products mfg	1998..	5 033 611	891 165	4 142 445	1
		1997..	4 757 215	510 105	4 247 110	X
3241	Petroleum & coal products mfg	1998..	5 033 611	891 165	4 142 445	1
		1997..	4 757 215	510 105	4 247 110	X
32411	Petroleum refineries	1998..	4 248 059	752 589	3 495 470	1
		1997..	4 244 371	422 156	3 822 215	X
324110	Petroleum refineries	1998..	4 248 059	752 589	3 495 470	1
		1997..	4 244 371	422 156	3 822 215	X
32412	Asphalt paving, roofing, & saturated materials mfg	1998..	607 330	105 595	501 735	6
		1997..	347 208	48 963	298 245	X
324121	Asphalt paving mixture & block mfg	1998..	458 511	83 459	375 052	7
		1997..	197 270	13 323	183 947	X
324122	Asphalt shingle & coating materials mfg	1998..	148 819	22 136	126 683	4
		1997..	149 938	35 640	114 298	X
32419	Other petroleum & coal products mfg	1998..	178 222	32 982	145 241	20
		1997..	165 636	38 986	126 650	X
324191	Petroleum lubricating oil & grease mfg	1998..	99 527	27 091	72 436	16
		1997..	105 539	23 837	81 702	X
324199	All other petroleum & coal products mfg	1998..	78 696	5 891	72 805	40
		1997..	60 097	15 149	44 948	X
325	Chemical mfg	1998..	21 548 258	2 821 850	18 726 408	1
		1997..	21 652 077	3 293 749	18 358 328	X
3251	Basic chemical mfg	1998..	7 268 495	454 337	6 814 157	1
		1997..	7 850 735	623 336	7 227 399	X
32511	Petrochemical mfg	1998..	635 889	17 145	618 744	2
		1997..	988 915	27 541	961 374	X
325110	Petrochemical mfg	1998..	635 889	17 145	618 744	2
		1997..	988 915	27 541	961 374	X
32512	Industrial gas mfg	1998..	659 412	18 648	640 764	1
		1997..	728 910	17 321	711 589	X
325120	Industrial gas mfg	1998..	659 412	18 648	640 764	1
		1997..	728 910	17 321	711 589	X
32513	Dye & pigment mfg	1998..	313 884	35 512	278 372	1
		1997..	340 623	60 740	279 883	X
325131	Inorganic dye & pigment mfg	1998..	192 711	19 309	173 402	1
		1997..	212 501	45 242	167 259	X
325132	Synthetic organic dye & pigment mfg	1998..	121 173	16 204	104 970	3
		1997..	128 122	15 498	112 624	X
32518	Other basic inorganic chemical mfg	1998..	1 384 971	130 892	1 254 079	5
		1997..	1 227 490	134 408	1 093 082	X
325181	Alkalies & chlorine mfg	1998..	225 289	12 934	212 355	1
		1997..	284 549	11 231	273 318	X
325182	Carbon black mfg	1998..	76 618	12 054	64 565	37
		1997..	89 107	2 583	86 544	X
325188	All other basic inorganic chemical mfg	1998..	1 083 065	105 905	977 160	6
		1997..	853 834	120 614	733 220	X
32519	Other basic organic chemical mfg	1998..	4 274 338	252 140	4 022 198	1
		1997..	4 564 797	383 326	4 181 471	X
325191	Gum & wood chemical mfg	1998..	32 554	3 086	29 468	3
		1997..	33 601	3 559	30 042	X
325192	Cyclic crude & intermediate mfg	1998..	381 827	14 289	367 538	1
		1997..	768 610	48 786	719 824	X
325193	Ethyl alcohol mfg	1998..	66 197	19 130	47 067	25
		1997..	38 249	13 734	24 515	X
325199	All other basic organic chemical mfg	1998..	3 793 760	215 635	3 578 125	1
		1997..	3 724 337	317 247	3 407 090	X
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	1998..	4 311 832	263 155	4 048 676	3
		1997..	3 953 626	366 127	3 587 499	X
32521	Resin & synthetic rubber mfg	1998..	3 692 608	211 133	3 481 476	4
		1997..	3 312 383	320 461	2 991 922	X
325211	Plastics material & resin mfg	1998..	3 356 741	195 745	3 160 996	4
		1997..	2 923 891	292 431	2 631 460	X
325212	Synthetic rubber mfg	1998..	335 867	15 388	320 479	1
		1997..	388 492	28 030	360 462	X
32522	Artificial & synthetic fibers & filaments mfg	1998..	619 223	52 023	567 201	2
		1997..	641 243	45 666	595 577	X
325221	Cellulosic organic fiber mfg	1998..	73 535	4 868	68 667	1
		1997..	46 741	2 640	44 101	X
325222	Noncellulosic organic fiber mfg	1998..	545 688	47 155	498 534	2
		1997..	594 502	43 026	551 476	X
3253	Pesticide, fertilizer, & other agricultural chemical mfg	1998..	1 168 814	64 427	1 104 387	14
		1997..	1 330 884	110 624	1 220 260	X
32531	Fertilizer mfg	1998..	776 658	39 739	736 919	20
		1997..	893 615	71 110	822 505	X
325311	Nitrogenous fertilizer mfg	1998..	390 391	4 878	385 513	15
		1997..	589 737	11 134	578 603	X
325312	Phosphatic fertilizer mfg	1998..	335 609	17 308	318 301	44
		1997..	232 758	43 388	189 370	X
325314	Fertilizer (mixing only) mfg	1998..	50 568	17 554	33 014	12
		1997..	71 120	16 588	54 532	X
32532	Pesticide & other agricultural chemical mfg	1998..	392 156	24 687	367 468	2
		1997..	437 269	29 514	397 755	X
325320	Pesticide & other agricultural chemical mfg	1998..	392 156	24 687	367 468	2
		1997..	437 269	29 514	397 755	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Total (\$1,000)	Buildings and other structures (\$1,000)	Machinery and equipment (\$1,000)	Relative standard error of estimate ¹ (percent) for column—
					A
325	Chemical mfg—Con.				
3254	Pharmaceutical & medicine mfg	1998.. 4 529 981	1 268 614	3 261 367	2
		1997.. 4 769 321	1 565 794	3 203 527	X
32541	Pharmaceutical & medicine mfg	1998.. 4 529 981	1 268 614	3 261 367	2
		1997.. 4 769 321	1 565 794	3 203 527	X
325411	Medicinal & botanical mfg	1998.. 1 113 209	216 742	896 467	6
		1997.. 1 125 300	266 869	858 431	X
325412	Pharmaceutical preparation mfg	1998.. 2 395 352	780 987	1 614 365	3
		1997.. 2 498 866	944 692	1 554 174	X
325413	In-vitro diagnostic substance mfg	1998.. 631 281	117 057	514 224	2
		1997.. 714 167	167 852	546 315	X
325414	Biological product (except diagnostic) mfg	1998.. 390 138	153 827	236 311	2
		1997.. 430 988	186 381	244 607	X
3255	Paint, coating, & adhesive mfg	1998.. 728 289	178 536	549 753	8
		1997.. 658 941	135 819	523 122	X
32551	Paint & coating mfg	1998.. 487 113	130 286	356 827	12
		1997.. 413 658	80 979	332 679	X
325510	Paint & coating mfg	1998.. 487 113	130 286	356 827	12
		1997.. 413 658	80 979	332 679	X
32552	Adhesive mfg	1998.. 241 176	48 250	192 926	9
		1997.. 245 283	54 840	190 443	X
325520	Adhesive mfg	1998.. 241 176	48 250	192 926	9
		1997.. 245 283	54 840	190 443	X
3256	Soap, cleaning compound, & toilet preparation mfg	1998.. 1 685 478	338 031	1 347 447	3
		1997.. 1 484 210	245 462	1 238 748	X
32561	Soap & cleaning compound mfg	1998.. 997 162	170 338	826 824	3
		1997.. 907 561	126 838	780 723	X
325611	Soap & other detergent mfg	1998.. 473 649	79 615	394 034	5
		1997.. 465 092	66 669	398 423	X
325612	Polish & other sanitation good mfg	1998.. 212 183	46 772	165 411	4
		1997.. 153 642	26 395	127 247	X
325613	Surface active agent mfg	1998.. 311 331	43 952	267 379	5
		1997.. 288 827	33 774	255 053	X
32562	Toilet preparation mfg	1998.. 688 316	167 693	520 623	7
		1997.. 576 649	118 624	458 025	X
325620	Toilet preparation mfg	1998.. 688 316	167 693	520 623	7
		1997.. 576 649	118 624	458 025	X
3259	Other chemical product mfg	1998.. 1 855 370	254 750	1 600 620	5
		1997.. 1 604 360	246 587	1 357 773	X
32591	Printing ink mfg	1998.. 67 932	10 321	57 611	11
		1997.. 90 688	19 505	71 183	X
325910	Printing ink mfg	1998.. 67 932	10 321	57 611	11
		1997.. 90 688	19 505	71 183	X
32592	Explosives mfg	1998.. 56 374	12 938	43 436	16
		1997.. 44 209	8 491	35 718	X
325920	Explosives mfg	1998.. 56 374	12 938	43 436	16
		1997.. 44 209	8 491	35 718	X
32599	All other chemical product & preparation mfg	1998.. 1 731 065	231 491	1 499 574	5
		1997.. 1 469 463	218 591	1 250 872	X
325991	Custom compounding of purchased resin	1998.. 239 569	42 774	196 795	6
		1997.. 286 121	47 240	238 881	X
325992	Photographic film, paper, plate, & chemical mfg	1998.. 880 997	60 106	820 891	10
		1997.. 568 792	63 530	505 262	X
325998	All other miscellaneous chemical product & preparation mfg	1998.. 610 499	128 611	481 887	2
		1997.. 614 550	107 821	506 729	X
326	Plastics & rubber products mfg	1998.. 8 134 518	1 207 881	6 926 637	2
		1997.. 7 907 107	1 089 106	6 818 001	X
3261	Plastics product mfg	1998.. 6 600 521	1 017 892	5 582 629	2
		1997.. 6 515 732	922 308	5 593 424	X
32611	Unsupported plastics film, sheet, & bag mfg	1998.. 1 172 754	162 110	1 010 644	5
		1997.. 1 329 256	188 815	1 140 441	X
326111	Unsupported plastics bag mfg	1998.. 309 144	30 118	279 026	9
		1997.. 367 097	43 038	324 059	X
326112	Unsupported plastics packaging film & sheet mfg	1998.. 176 425	31 662	144 763	17
		1997.. 215 240	33 944	181 296	X
326113	Unsupported plastics film & sheet (except packaging) mfg	1998.. 687 184	100 330	586 855	6
		1997.. 746 919	111 833	635 086	X
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg	1998.. 436 778	56 373	380 405	7
		1997.. 462 062	66 886	395 176	X
326121	Unsupported plastics profile shape mfg	1998.. 199 912	26 696	173 215	6
		1997.. 218 724	37 066	181 658	X
326122	Plastics pipe & pipe fitting mfg	1998.. 236 866	29 676	207 190	12
		1997.. 243 338	29 820	213 518	X
32613	Laminated plastics plate, sheet, & shape mfg	1998.. 113 953	8 899	105 055	10
		1997.. 139 284	16 708	122 576	X
326130	Laminated plastics plate, sheet, & shape mfg	1998.. 113 953	8 899	105 055	10
		1997.. 139 284	16 708	122 576	X
32614	Polystyrene foam product mfg	1998.. 376 039	107 936	268 104	12
		1997.. 333 683	81 927	251 756	X
326140	Polystyrene foam product mfg	1998.. 376 039	107 936	268 104	12
		1997.. 333 683	81 927	251 756	X
32615	Urethane & other foam product (except polystyrene) mfg	1998.. 199 512	25 650	173 862	8
		1997.. 217 656	40 068	177 588	X
326150	Urethane & other foam product (except polystyrene) mfg	1998.. 199 512	25 650	173 862	8
		1997.. 217 656	40 068	177 588	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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NAICS code	Industry group and industry	Total (\$1,000)	Buildings and other structures (\$1,000)	Machinery and equipment (\$1,000)	Relative standard error of estimate ¹ (percent) for column—
					A
326	Plastics & rubber products mfg—Con.				
3261	Plastics product mfg—Con.				
32616	Plastics bottle mfg	1998.. 575 616	57 412	518 204	5
		1997.. 454 167	34 935	419 232	X
326160	Plastics bottle mfg	1998.. 575 616	57 412	518 204	5
		1997.. 454 167	34 935	419 232	X
32619	Other plastics product mfg	1998.. 3 725 869	599 513	3 126 356	2
		1997.. 3 579 624	492 969	3 086 655	X
326191	Plastics plumbing fixture mfg	1998.. 43 495	4 831	38 664	8
		1997.. 49 088	7 838	41 250	X
326192	Resilient floor covering mfg	1998.. 74 152	6 413	67 738	1
		1997.. 66 721	8 818	57 903	X
326199	All other plastics product mfg	1998.. 3 608 222	588 268	3 019 954	2
		1997.. 3 463 815	476 313	2 987 502	X
3262	Rubber product mfg	1998.. 1 533 997	189 989	1 344 008	3
		1997.. 1 391 375	166 798	1 224 577	X
32621	Tire mfg	1998.. 726 325	73 687	652 637	3
		1997.. 611 721	43 245	568 476	X
326211	Tire mfg (except retreading)	1998.. 687 058	71 386	615 671	3
		1997.. 587 232	40 863	546 369	X
326212	Tire retreading	1998.. 39 267	2 301	36 966	21
		1997.. 24 489	2 382	22 107	X
32622	Rubber & plastics hoses & belting mfg	1998.. 158 552	23 054	135 498	11
		1997.. 144 948	20 690	124 258	X
326220	Rubber & plastics hoses & belting mfg	1998.. 158 552	23 054	135 498	11
		1997.. 144 948	20 690	124 258	X
32629	Other rubber product mfg	1998.. 649 121	93 248	555 872	6
		1997.. 634 706	102 863	531 843	X
326291	Rubber product mfg for mechanical use	1998.. 325 540	46 896	278 644	6
		1997.. 347 251	53 456	293 795	X
326299	All other rubber product mfg	1998.. 323 581	46 353	277 228	11
		1997.. 287 455	49 407	238 048	X
327	Nonmetallic mineral product mfg	1998.. 4 947 535	654 732	4 292 802	2
		1997.. 4 835 153	649 235	4 185 918	X
3271	Clay product & refractory mfg	1998.. 417 180	78 985	338 195	11
		1997.. 419 660	74 162	345 498	X
32711	Pottery, ceramics, & plumbing fixture mfg	1998.. 159 969	29 078	130 892	15
		1997.. 159 419	29 034	130 385	X
327111	Vitreous china plumbing fixture & bathroom accessories mfg	1998.. 22 173	1 987	20 186	1
		1997.. 14 877	1 585	13 292	X
327112	Vitreous china, fine earthenware, & other pottery product mfg	1998.. 71 705	16 436	55 269	12
		1997.. 76 213	15 217	60 996	X
327113	Porcelain electrical supply mfg	1998.. 66 091	10 654	55 436	34
		1997.. 68 329	12 232	56 097	X
32712	Clay building material & refractories mfg	1998.. 257 211	49 908	207 303	15
		1997.. 260 241	45 128	215 113	X
327121	Brick & structural clay tile mfg	1998.. 83 194	9 907	73 288	11
		1997.. 71 338	10 338	61 000	X
327122	Ceramic wall & floor tile mfg	1998.. 43 022	10 116	32 907	15
		1997.. 62 029	9 314	52 715	X
327123	Other structural clay product mfg	1998.. 8 592	738	7 854	69
		1997.. 4 856	823	4 033	X
327124	Clay refractory mfg	1998.. 25 572	2 919	22 653	18
		1997.. 25 605	2 190	23 415	X
327125	Nonclay refractory mfg	1998.. 96 831	26 229	70 602	37
		1997.. 96 413	22 463	73 950	X
3272	Glass & glass product mfg	1998.. 1 673 061	158 360	1 514 701	1
		1997.. 1 642 974	237 096	1 405 878	X
32721	Glass & glass product mfg	1998.. 1 673 061	158 360	1 514 701	1
		1997.. 1 642 974	237 096	1 405 878	X
327211	Flat glass mfg	1998.. 322 736	17 854	304 881	1
		1997.. 176 690	20 141	156 549	X
327212	Other pressed & blown glass & glassware mfg	1998.. 636 761	67 901	568 860	2
		1997.. 628 784	75 590	553 194	X
327213	Glass container mfg	1998.. 349 290	D	D	2
		1997.. 283 023	D	D	X
327215	Glass product mfg made of purchased glass	1998.. 364 275	D	D	5
		1997.. 554 477	D	D	X
3273	Cement & concrete product mfg	1998.. 1 903 996	287 084	1 616 912	3
		1997.. 1 829 522	210 766	1 618 756	X
32731	Cement mfg	1998.. 520 581	98 340	422 241	7
		1997.. 506 015	35 285	470 730	X
327310	Cement mfg	1998.. 520 581	98 340	422 241	7
		1997.. 506 015	35 285	470 730	X
32732	Ready-mix concrete mfg	1998.. 847 794	94 481	753 313	4
		1997.. 818 496	85 108	733 388	X
327320	Ready-mix concrete mfg	1998.. 847 794	94 481	753 313	4
		1997.. 818 496	85 108	733 388	X
32733	Concrete pipe, brick, & block mfg	1998.. 266 355	43 234	223 121	10
		1997.. 232 654	41 980	190 674	X
327331	Concrete block & brick mfg	1998.. 173 179	30 990	142 189	14
		1997.. 150 906	27 269	123 637	X
327332	Concrete pipe mfg	1998.. 93 176	12 244	80 931	13
		1997.. 81 748	14 711	67 037	X
32739	Other concrete product mfg	1998.. 269 266	51 029	218 237	7
		1997.. 272 357	48 393	223 964	X
327390	Other concrete product mfg	1998.. 269 266	51 029	218 237	7
		1997.. 272 357	48 393	223 964	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard
			(\$1,000)	(\$1,000)	(\$1,000)	error of estimate ¹ (percent) for column—
			A	B	C	A
327	Nonmetallic mineral product mfg—Con.					
3274	Lime & gypsum product mfg	1998..	228 218	23 920	204 298	16
		1997..	214 586	23 409	191 177	X
32741	Lime mfg	1998..	60 081	4 118	55 964	36
		1997..	59 562	4 932	54 630	X
327410	Lime mfg	1998..	60 081	4 118	55 964	36
		1997..	59 562	4 932	54 630	X
32742	Gypsum product mfg	1998..	168 137	19 802	148 335	17
		1997..	155 024	18 477	136 547	X
327420	Gypsum product mfg	1998..	168 137	19 802	148 335	17
		1997..	155 024	18 477	136 547	X
3279	Other nonmetallic mineral product mfg	1998..	725 079	106 383	618 696	4
		1997..	728 411	103 802	624 609	X
32791	Abrasive product mfg	1998..	163 224	27 320	135 904	11
		1997..	156 225	18 806	137 419	X
327910	Abrasive product mfg	1998..	163 224	27 320	135 904	11
		1997..	156 225	18 806	137 419	X
32799	All other nonmetallic mineral product mfg	1998..	561 856	79 063	482 792	4
		1997..	572 186	84 996	487 190	X
327991	Cut stone & stone product mfg	1998..	42 399	9 238	33 162	36
		1997..	52 942	8 423	44 519	X
327992	Ground or treated mineral & earth mfg	1998..	144 045	14 539	129 506	12
		1997..	139 746	18 759	120 987	X
327993	Mineral wool mfg	1998..	285 755	29 603	256 152	2
		1997..	282 825	42 233	240 592	X
327999	All other miscellaneous nonmetallic mineral product mfg	1998..	89 657	25 684	63 973	9
		1997..	96 673	15 581	81 092	X
331	Primary metal mfg	1998..	6 615 771	939 068	5 676 702	1
		1997..	6 670 248	799 094	5 871 154	X
3311	Iron & steel mills & ferroalloy mfg	1998..	2 803 835	249 947	2 553 889	1
		1997..	2 836 031	215 599	2 620 432	X
33111	Iron & steel mills & ferroalloy mfg	1998..	2 803 835	249 947	2 553 889	1
		1997..	2 836 031	215 599	2 620 432	X
331111	Iron & steel mills	1998..	2 760 300	243 065	2 517 236	1
		1997..	2 766 347	198 371	2 567 976	X
331112	Electrometallurgical ferroalloy product mfg	1998..	43 535	6 882	36 653	1
		1997..	69 684	17 228	52 456	X
3312	Steel product mfg from purchased steel	1998..	542 436	93 136	449 299	6
		1997..	555 894	85 071	470 823	X
33121	Iron & steel pipes & tubes mfg from purchased steel	1998..	249 081	53 367	195 714	6
		1997..	221 786	32 564	189 222	X
331210	Iron & steel pipes & tubes mfg from purchased steel	1998..	249 081	53 367	195 714	6
		1997..	221 786	32 564	189 222	X
33122	Rolling & drawing of purchased steel	1998..	293 354	39 769	253 585	10
		1997..	334 108	52 507	281 601	X
331221	Cold-rolled steel shape mfg	1998..	155 162	10 726	144 436	10
		1997..	140 043	14 699	125 344	X
331222	Steel wire drawing	1998..	138 192	29 043	109 150	18
		1997..	194 065	37 808	156 257	X
3313	Alumina & aluminum production & processing	1998..	1 065 263	299 867	765 396	2
		1997..	1 012 948	162 445	850 503	X
33131	Alumina & aluminum production & processing	1998..	1 065 263	299 867	765 396	2
		1997..	1 012 948	162 445	850 503	X
331311	Alumina refining	1998..	50 630	D	D	1
		1997..	96 963	D	D	X
331312	Primary aluminum production	1998..	384 940	96 601	288 339	1
		1997..	252 588	46 093	206 495	X
331314	Secondary smelting & alloying of aluminum	1998..	65 753	12 956	52 797	11
		1997..	90 275	27 723	62 552	X
331315	Aluminum sheet, plate, & foil mfg	1998..	317 860	104 723	213 137	1
		1997..	334 199	38 813	295 386	X
331316	Aluminum extruded product mfg	1998..	228 125	62 315	165 810	8
		1997..	208 984	33 370	175 614	X
331319	Other aluminum rolling & drawing	1998..	17 955	D	D	5
		1997..	29 939	D	D	X
3314	Nonferrous metal (except aluminum) production & processing	1998..	897 623	139 302	758 321	4
		1997..	928 596	141 399	787 197	X
33141	Nonferrous metal (except aluminum) smelting & refining	1998..	326 848	40 813	286 035	2
		1997..	346 865	53 056	293 809	X
331411	Primary smelting & refining of copper	1998..	177 584	9 372	168 212	1
		1997..	184 604	12 665	171 939	X
331419	Other nonferrous metal primary smelting & refining	1998..	149 264	31 441	117 823	4
		1997..	162 261	40 391	121 870	X
33142	Copper rolling, drawing, extruding, & alloying	1998..	194 501	18 527	175 974	12
		1997..	210 675	21 939	188 736	X
331421	Copper rolling, drawing, & extruding	1998..	127 707	10 774	116 934	6
		1997..	152 486	9 362	143 124	X
331422	Copper wire (except mechanical) drawing	1998..	54 514	5 032	49 482	39
		1997..	41 788	9 807	31 981	X
331423	Secondary smelting, refining, & alloying of copper	1998..	12 280	2 722	9 558	35
		1997..	16 401	2 770	13 631	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Total	Buildings and other structures	Machinery and equipment	Relative standard error of estimate ¹ (percent) for column—
		(\$1,000)	(\$1,000)	(\$1,000)	A
		A	B	C	A
331	Primary metal mfg—Con.				
3314	Nonferrous metal (except aluminum) production & processing—Con.				
33149	Other nonferrous metal rolling, drawing, extruding, & alloying	1998.. 376 274	79 961	296 313	6
		1997.. 371 056	66 404	304 652	X
331491	Other nonferrous metal rolling, drawing, & extruding	1998.. 259 139	48 708	210 431	8
		1997.. 249 555	28 394	221 161	X
331492	Other nonferrous metal secondary smelting, refining, & alloying	1998.. 117 135	31 253	85 882	8
		1997.. 121 501	38 010	83 491	X
3315	Foundries	1998.. 1 306 613	156 816	1 149 798	6
		1997.. 1 336 779	194 580	1 142 199	X
33151	Ferrous metal foundries	1998.. 701 599	74 506	627 093	5
		1997.. 715 537	89 228	626 309	X
331511	Iron foundries	1998.. 519 788	47 775	472 012	5
		1997.. 511 665	54 960	456 705	X
331512	Steel investment foundries	1998.. 71 531	12 381	59 150	18
		1997.. 76 396	11 416	64 980	X
331513	Steel foundries (except investment)	1998.. 110 280	14 350	95 930	9
		1997.. 127 476	22 852	104 624	X
33152	Nonferrous metal foundries	1998.. 605 014	82 310	522 705	11
		1997.. 621 242	105 352	515 890	X
331521	Aluminum die-casting foundries	1998.. 229 320	35 987	193 334	14
		1997.. 232 244	43 364	188 880	X
331522	Nonferrous (except aluminum) die-casting foundries	1998.. 82 358	22 748	59 610	24
		1997.. 87 889	11 539	76 350	X
331524	Aluminum foundries (except die-casting)	1998.. 251 793	21 580	230 213	21
		1997.. 244 894	43 027	201 867	X
331525	Copper foundries (except die-casting)	1998.. 12 149	983	11 166	47
		1997.. 25 624	4 100	21 524	X
331528	Other nonferrous foundries (except die-casting)	1998.. 29 394	1 012	28 383	27
		1997.. 30 591	3 322	27 269	X
332	Fabricated metal product mfg	1998.. 9 810 344	1 443 672	8 366 672	2
		1997.. 9 648 749	1 358 522	8 290 227	X
3321	Forging & stamping	1998.. 1 005 000	176 912	828 089	5
		1997.. 1 093 604	167 996	925 608	X
33211	Forging & stamping	1998.. 1 005 000	176 912	828 089	5
		1997.. 1 093 604	167 996	925 608	X
332111	Iron & steel forging	1998.. 197 764	15 951	181 813	13
		1997.. 230 108	28 209	201 899	X
332112	Nonferrous forging	1998.. 51 488	20 433	31 055	1
		1997.. 126 844	21 640	105 204	X
332114	Custom roll forming	1998.. 50 292	10 705	39 587	17
		1997.. 60 512	9 529	50 983	X
332115	Crown & closure mfg	1998.. 51 207	8 429	42 778	5
		1997.. 51 255	3 833	47 422	X
332116	Metal stamping	1998.. 577 626	109 999	467 627	8
		1997.. 543 908	94 557	449 351	X
332117	Powder metallurgy part mfg	1998.. 76 623	11 395	65 228	7
		1997.. 80 977	10 228	70 749	X
3322	Cutlery & handtool mfg	1998.. 660 386	42 626	617 759	7
		1997.. 545 039	47 292	497 747	X
33221	Cutlery & handtool mfg	1998.. 660 386	42 626	617 759	7
		1997.. 545 039	47 292	497 747	X
332211	Cutlery & flatware (except precious) mfg	1998.. 298 917	8 505	290 412	5
		1997.. 215 638	6 544	209 094	X
332212	Hand & edge tool mfg	1998.. 253 522	25 484	228 038	16
		1997.. 233 151	30 498	202 653	X
332213	Saw blade & handsaw mfg	1998.. 76 427	3 820	72 608	31
		1997.. 67 237	6 706	60 531	X
332214	Kitchen utensil, pot, & pan mfg	1998.. 31 518	4 817	26 701	19
		1997.. 29 013	3 544	25 469	X
3323	Architectural & structural metals mfg	1998.. 1 417 339	264 771	1 152 568	5
		1997.. 1 276 662	252 728	1 023 934	X
33231	Plate work & fabricated structural product mfg	1998.. 461 235	90 532	370 703	5
		1997.. 439 746	101 542	338 204	X
332311	Prefabricated metal building & component mfg	1998.. 89 570	14 535	75 034	16
		1997.. 62 007	13 614	48 393	X
332312	Fabricated structural metal mfg	1998.. 293 271	63 528	229 743	5
		1997.. 298 665	72 087	226 578	X
332313	Plate work mfg	1998.. 78 394	12 468	65 926	14
		1997.. 79 074	15 841	63 233	X
33232	Ornamental & architectural metal products mfg	1998.. 956 104	174 239	781 865	6
		1997.. 836 916	151 186	685 730	X
332321	Metal window & door mfg	1998.. 267 858	48 463	219 395	16
		1997.. 189 502	40 912	148 590	X
332322	Sheet metal work mfg	1998.. 562 430	105 630	456 799	7
		1997.. 548 037	95 345	452 692	X
332323	Ornamental & architectural metal work mfg	1998.. 125 817	20 146	105 671	11
		1997.. 99 377	14 929	84 448	X
3324	Boiler, tank, & shipping container mfg	1998.. 590 685	85 738	504 946	7
		1997.. 589 211	80 178	509 033	X
33241	Power boiler & heat exchanger mfg	1998.. 119 928	29 746	90 182	29
		1997.. 100 507	18 488	82 019	X
332410	Power boiler & heat exchanger mfg	1998.. 119 928	29 746	90 182	29
		1997.. 100 507	18 488	82 019	X
33242	Metal tank (heavy gauge) mfg	1998.. 123 758	24 947	98 811	12
		1997.. 122 927	27 677	95 250	X
332420	Metal tank (heavy gauge) mfg	1998.. 123 758	24 947	98 811	12
		1997.. 122 927	27 677	95 250	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Total	Buildings and other structures	Machinery and equipment	Relative standard error of estimate ¹ (percent) for column—
		(\$1,000)	(\$1,000)	(\$1,000)	
		A	B	C	A
332	Fabricated metal product mfg—Con.				
3324	Boiler, tank, & shipping container mfg—Con.				
33243	Metal can, box, & other metal container (light gauge) mfg	1998.. 346 999	31 045	315 954	5
		1997.. 365 777	34 013	331 764	X
332431	Metal can mfg	1998.. 265 866	18 184	247 682	1
		1997.. 306 014	22 769	283 245	X
332439	Other metal container mfg	1998.. 81 133	12 861	68 272	20
		1997.. 59 763	11 244	48 519	X
3325	Hardware mfg	1998.. 344 913	27 318	317 595	5
		1997.. 382 279	52 291	329 988	X
33251	Hardware mfg	1998.. 344 913	27 318	317 595	5
		1997.. 382 279	52 291	329 988	X
332510	Hardware mfg	1998.. 344 913	27 318	317 595	5
		1997.. 382 279	52 291	329 988	X
3326	Spring & wire product mfg	1998.. 368 275	57 449	310 827	10
		1997.. 345 838	63 948	281 890	X
33261	Spring & wire product mfg	1998.. 368 275	57 449	310 827	10
		1997.. 345 838	63 948	281 890	X
332611	Spring (heavy gauge) mfg	1998.. 36 801	8 095	28 706	48
		1997.. 49 756	10 330	39 426	X
332612	Spring (light gauge) mfg	1998.. 163 321	22 160	141 161	15
		1997.. 109 228	16 221	93 007	X
332618	Other fabricated wire product mfg	1998.. 168 153	27 194	140 959	13
		1997.. 186 854	37 397	149 457	X
3327	Machine shops, turned product, & screw, nut, & bolt mfg	1998.. 2 657 900	344 895	2 313 005	5
		1997.. 2 531 666	289 614	2 242 052	X
33271	Machine shops	1998.. 1 642 105	209 718	1 432 387	7
		1997.. 1 558 235	178 967	1 379 268	X
332710	Machine shops	1998.. 1 642 105	209 718	1 432 387	7
		1997.. 1 558 235	178 967	1 379 268	X
33272	Turned product & screw, nut, & bolt mfg	1998.. 1 015 795	135 177	880 619	7
		1997.. 973 431	110 647	862 784	X
332721	Precision turned product mfg	1998.. 621 538	98 825	522 713	12
		1997.. 577 245	68 461	508 784	X
332722	Bolt, nut, screw, rivet, & washer mfg	1998.. 394 258	36 352	357 906	6
		1997.. 396 186	42 186	354 000	X
3328	Coating, engraving, heat treating, & allied activities	1998.. 963 827	168 898	794 929	6
		1997.. 1 130 454	175 341	955 113	X
33281	Coating, engraving, heat treating, & allied activities	1998.. 963 827	168 898	794 929	6
		1997.. 1 130 454	175 341	955 113	X
332811	Metal heat treating	1998.. 253 676	26 371	227 305	17
		1997.. 292 261	39 216	253 045	X
332812	Metal coating/engraving (exc jewelry/silverware)/allied services	1998.. 397 766	90 849	306 918	5
		1997.. 543 644	77 601	466 043	X
332813	Electroplating, plating, polishing, anodizing, & coloring	1998.. 312 385	51 678	260 706	11
		1997.. 294 549	58 524	236 025	X
3329	Other fabricated metal product mfg	1998.. 1 802 019	275 066	1 526 954	3
		1997.. 1 753 996	229 134	1 524 862	X
33291	Metal valve mfg	1998.. 780 748	145 394	635 354	6
		1997.. 739 806	101 765	638 041	X
332911	Industrial valve mfg	1998.. 358 017	67 156	290 860	10
		1997.. 308 157	40 054	268 103	X
332912	Fluid power valve & hose fitting mfg	1998.. 240 238	44 315	195 924	12
		1997.. 237 376	34 211	203 165	X
332913	Plumbing fixture fitting & trim mfg	1998.. 79 376	6 941	72 434	28
		1997.. 85 463	7 220	78 243	X
332919	Other metal valve & pipe fitting mfg	1998.. 103 117	26 982	76 135	9
		1997.. 108 810	20 280	88 530	X
33299	All other fabricated metal product mfg	1998.. 1 021 271	129 672	891 600	3
		1997.. 1 014 190	127 369	886 821	X
332991	Ball & roller bearing mfg	1998.. 323 974	40 078	283 896	5
		1997.. 309 041	35 669	273 372	X
332992	Small arms ammunition mfg	1998.. 19 838	2 321	17 517	1
		1997.. 26 180	2 569	23 611	X
332993	Ammunition (except small arms) mfg	1998.. 30 230	5 306	24 924	4
		1997.. 28 529	3 532	24 997	X
332994	Small arms mfg	1998.. 34 080	2 011	32 069	19
		1997.. 32 686	3 079	29 607	X
332995	Other ordnance & accessories mfg	1998.. 19 409	3 213	16 197	7
		1997.. 18 035	2 238	15 797	X
332996	Fabricated pipe & pipe fitting mfg	1998.. 158 040	24 744	133 296	8
		1997.. 157 489	25 679	131 810	X
332997	Industrial pattern mfg	1998.. 34 354	5 227	29 127	21
		1997.. 35 660	3 407	32 253	X
332998	Enameled iron & metal sanitary ware mfg	1998.. 40 026	3 317	36 709	1
		1997.. 54 210	4 063	50 147	X
332999	All other miscellaneous fabricated metal product mfg	1998.. 361 319	43 455	317 864	7
		1997.. 352 360	47 133	305 227	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard error of estimate ¹ (percent) for column—
			(\$1,000)	(\$1,000)	(\$1,000)	
			A	B	C	A
333	Machinery mfg	1998..	10 134 154	1 714 153	8 420 001	3
		1997..	8 850 246	1 665 564	7 184 682	X
3331	Agriculture, construction, & mining machinery mfg ..	1998..	1 562 437	296 031	1 266 406	5
		1997..	1 476 668	258 320	1 218 348	X
33311	Agricultural implement mfg	1998..	764 552	142 938	621 614	9
		1997..	694 682	114 289	580 393	X
333111	Farm machinery & equipment mfg	1998..	529 067	73 389	455 678	8
		1997..	508 933	88 904	420 029	X
333112	Lawn & garden tractor & home lawn & garden equipment mfg	1998..	235 485	69 549	165 936	24
		1997..	185 749	25 385	160 364	X
33312	Construction machinery mfg	1998..	559 789	108 424	451 366	4
		1997..	489 373	108 279	381 094	X
333120	Construction machinery mfg	1998..	559 789	108 424	451 366	4
		1997..	489 373	108 279	381 094	X
33313	Mining & oil & gas field machinery mfg	1998..	238 096	44 669	193 427	5
		1997..	292 613	35 752	256 861	X
333131	Mining machinery & equipment mfg	1998..	42 371	6 633	35 738	6
		1997..	63 084	11 478	51 606	X
333132	Oil & gas field machinery & equipment mfg	1998..	195 725	38 037	157 688	6
		1997..	229 529	24 274	205 255	X
3332	Industrial machinery mfg	1998..	1 484 550	445 932	1 038 618	7
		1997..	1 434 154	380 455	1 053 699	X
33321	Sawmill & woodworking machinery mfg.....	1998..	34 769	3 424	31 346	19
		1997..	18 351	2 443	15 908	X
333210	Sawmill & woodworking machinery mfg.....	1998..	34 769	3 424	31 346	19
		1997..	18 351	2 443	15 908	X
33322	Plastics & rubber industry machinery mfg	1998..	96 034	14 165	81 869	22
		1997..	93 179	19 860	73 319	X
333220	Plastics & rubber industry machinery mfg	1998..	96 034	14 165	81 869	22
		1997..	93 179	19 860	73 319	X
33329	Other industrial machinery mfg	1998..	1 353 747	428 343	925 404	7
		1997..	1 322 624	358 152	964 472	X
333291	Paper industry machinery mfg.....	1998..	82 773	22 059	60 714	7
		1997..	93 563	15 772	77 791	X
333292	Textile machinery mfg.....	1998..	46 535	4 115	42 420	17
		1997..	55 222	6 066	49 156	X
333293	Printing machinery & equipment mfg	1998..	90 823	13 895	76 928	12
		1997..	92 387	16 568	75 819	X
333294	Food product machinery mfg.....	1998..	70 708	12 588	58 120	19
		1997..	80 022	18 939	61 083	X
333295	Semiconductor machinery mfg	1998..	829 859	318 908	510 951	11
		1997..	683 608	238 567	445 041	X
333298	All other industrial machinery mfg.....	1998..	233 048	56 778	176 270	16
		1997..	317 822	62 240	255 582	X
3333	Commercial & service industry machinery mfg	1998..	902 313	214 465	687 847	6
		1997..	860 767	167 205	693 562	X
33331	Commercial & service industry machinery mfg ...	1998..	902 313	214 465	687 847	6
		1997..	860 767	167 205	693 562	X
333311	Automatic vending machine mfg	1998..	27 645	3 591	24 053	4
		1997..	31 885	7 438	24 447	X
333312	Commercial laundry, drycleaning, & pressing machine mfg	1998..	109 545	22 363	87 182	1
		1997..	4 212	282	3 930	X
333313	Office machinery mfg	1998..	71 423	13 100	58 322	11
		1997..	114 530	16 352	98 178	X
333314	Optical instrument & lens mfg	1998..	182 562	41 767	140 795	6
		1997..	176 049	26 197	149 852	X
333315	Photographic & photocopying equipment mfg ..	1998..	247 485	61 182	186 302	20
		1997..	288 784	57 747	231 037	X
333319	Other commercial & service industry machinery mfg	1998..	263 654	72 462	191 193	8
		1997..	245 307	59 189	186 118	X
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	1998..	1 428 081	127 521	1 300 560	3
		1997..	780 945	146 182	634 763	X
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	1998..	1 428 081	127 521	1 300 560	3
		1997..	780 945	146 182	634 763	X
333411	Air purification equipment mfg	1998..	87 542	30 841	56 700	41
		1997..	70 105	18 638	51 467	X
333412	Industrial & commercial fan & blower mfg	1998..	49 783	9 375	40 408	16
		1997..	55 006	13 405	41 601	X
333414	Heating equipment (except warm air furnaces) mfg	1998..	234 268	25 283	208 985	9
		1997..	89 555	20 412	69 143	X
333415	AC & warm air heating & commercial/industrial refrig equip mfg	1998..	1 056 488	62 021	994 467	2
		1997..	566 279	93 727	472 552	X
3335	Metalworking machinery mfg	1998..	1 758 875	220 302	1 538 573	16
		1997..	1 468 611	229 085	1 239 526	X
33351	Metalworking machinery mfg	1998..	1 758 875	220 302	1 538 573	16
		1997..	1 468 611	229 085	1 239 526	X
333511	Industrial mold mfg	1998..	365 946	31 975	333 971	14
		1997..	360 314	37 977	322 337	X
333512	Machine tool (metal cutting types) mfg	1998..	418 610	23 879	394 730	65
		1997..	141 241	46 336	94 905	X
333513	Machine tool (metal forming types) mfg.....	1998..	93 762	40 983	52 779	10
		1997..	92 077	29 854	62 223	X
333514	Special die & tool, die set, jig, & fixture mfg	1998..	497 310	70 924	426 386	6
		1997..	501 010	64 470	436 540	X
333515	Cutting tool & machine tool accessory mfg	1998..	293 031	31 936	261 096	10
		1997..	276 759	30 453	246 306	X
333516	Rolling mill machinery & equipment mfg	1998..	13 676	1 562	12 114	20
		1997..	17 278	2 236	15 042	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard
			(\$1,000)	(\$1,000)	(\$1,000)	error of estimate ¹ (percent) for column—
			A	B	C	A
333	Machinery mfg—Con.					
3335	Metalworking machinery mfg—Con.					
33351	Metalworking machinery mfg—Con.					
333518	Other metalworking machinery mfg	1998..	76 541	19 043	57 497	12
		1997..	79 932	17 759	62 173	X
3336	Engine, turbine, & power transmission equipment mfg	1998..	1 184 899	89 227	1 095 672	1
		1997..	1 055 565	146 563	909 002	X
33361	Engine, turbine, & power transmission equipment mfg	1998..	1 184 899	89 227	1 095 672	1
		1997..	1 055 565	146 563	909 002	X
333611	Turbine & turbine generator set unit mfg	1998..	300 278	27 722	272 556	2
		1997..	177 434	16 832	160 602	X
333612	Speed changer, industrial high-speed drive, & gear mfg	1998..	87 125	10 473	76 652	10
		1997..	116 810	14 751	102 059	X
333613	Mechanical power transmission equipment mfg	1998..	118 661	11 650	107 011	5
		1997..	133 395	22 340	111 055	X
333618	Other engine equipment mfg	1998..	678 835	39 382	639 454	1
		1997..	627 926	92 640	535 286	X
3339	Other general-purpose machinery mfg	1998..	1 812 999	320 676	1 492 323	4
		1997..	1 773 536	337 754	1 435 782	X
33391	Pump & compressor mfg	1998..	452 602	67 719	384 883	12
		1997..	393 246	58 705	334 541	X
333911	Pump & pumping equipment mfg	1998..	232 235	34 229	198 006	7
		1997..	189 875	18 911	170 964	X
333912	Air & gas compressor mfg	1998..	191 124	30 589	160 534	28
		1997..	170 679	37 570	133 109	X
333913	Measuring & dispensing pump mfg	1998..	29 243	2 901	26 343	9
		1997..	32 692	2 224	30 468	X
33392	Material handling equipment mfg	1998..	339 944	73 511	266 433	6
		1997..	416 139	119 166	296 973	X
333921	Elevator & moving stairway mfg	1998..	47 719	15 290	32 429	6
		1997..	40 247	9 778	30 469	X
333922	Conveyor & conveying equipment mfg	1998..	124 778	28 006	96 772	13
		1997..	150 056	44 940	105 116	X
333923	Overhead traveling crane, hoist, & monorail system mfg	1998..	61 517	7 993	53 525	5
		1997..	85 938	27 294	58 644	X
333924	Industrial truck, tractor, trailer, & stacker machinery mfg	1998..	105 930	22 222	83 708	9
		1997..	139 898	37 154	102 744	X
33399	All other general-purpose machinery mfg	1998..	1 020 453	179 446	841 007	4
		1997..	964 151	159 883	804 268	X
333991	Power-driven handtool mfg	1998..	103 263	13 307	89 957	1
		1997..	129 232	18 484	110 748	X
333992	Welding & soldering equipment mfg	1998..	94 672	16 724	77 948	3
		1997..	122 871	23 279	99 592	X
333993	Packaging machinery mfg	1998..	117 333	29 113	88 220	12
		1997..	123 207	23 085	100 122	X
333994	Industrial process furnace & oven mfg	1998..	56 089	10 504	45 585	18
		1997..	65 635	17 230	48 405	X
333995	Fluid power cylinder & actuator mfg	1998..	155 864	31 059	124 805	20
		1997..	113 086	10 114	102 972	X
333996	Fluid power pump & motor mfg	1998..	145 325	11 272	134 053	12
		1997..	111 085	20 695	90 390	X
333997	Scale & balance (except laboratory) mfg	1998..	29 109	8 218	20 891	36
		1997..	10 840	1 417	9 423	X
333999	All other miscellaneous general-purpose machinery mfg	1998..	318 798	59 250	259 548	4
		1997..	288 195	45 579	242 616	X
334	Computer & electronic product mfg	1998..	21 233 534	4 067 479	17 166 055	2
		1997..	24 571 877	4 272 478	20 299 399	X
3341	Computer & peripheral equipment mfg	1998..	3 334 542	535 809	2 798 732	1
		1997..	3 283 703	425 986	2 857 717	X
33411	Computer & peripheral equipment mfg	1998..	3 334 542	535 809	2 798 732	1
		1997..	3 283 703	425 986	2 857 717	X
334111	Electronic computer mfg	1998..	768 181	246 046	522 135	1
		1997..	1 053 036	128 995	924 041	X
334112	Computer storage device mfg	1998..	1 118 529	145 408	973 121	1
		1997..	1 219 725	157 264	1 062 461	X
334113	Computer terminal mfg	1998..	30 789	2 536	28 253	14
		1997..	34 716	6 287	28 429	X
334119	Other computer peripheral equipment mfg	1998..	1 417 043	141 820	1 275 223	3
		1997..	976 226	133 440	842 786	X
3342	Communications equipment mfg	1998..	3 105 971	708 463	2 397 508	8
		1997..	3 095 626	541 238	2 554 388	X
33421	Telephone apparatus mfg	1998..	1 166 817	403 911	762 907	1
		1997..	1 098 619	179 439	919 180	X
334210	Telephone apparatus mfg	1998..	1 166 817	403 911	762 907	1
		1997..	1 098 619	179 439	919 180	X
33422	Radio & TV broadcasting & wireless communications equipment mfg	1998..	1 716 954	283 141	1 433 813	15
		1997..	1 847 125	328 893	1 518 232	X
334220	Radio & TV broadcasting & wireless communications equipment mfg	1998..	1 716 954	283 141	1 433 813	15
		1997..	1 847 125	328 893	1 518 232	X
33429	Other communications equipment mfg	1998..	222 200	21 411	200 789	6
		1997..	149 882	32 906	116 976	X
334290	Other communications equipment mfg	1998..	222 200	21 411	200 789	6
		1997..	149 882	32 906	116 976	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Total (\$1,000)	Buildings and other structures (\$1,000)	Machinery and equipment (\$1,000)	Relative standard error of estimate ¹ (percent) for column—
					A
334	Computer & electronic product mfg—Con.				
3343	Audio & video equipment mfg	177 966	35 440	142 526	6
	1997..	205 373	56 352	149 021	X
33431	Audio & video equipment mfg	177 966	35 440	142 526	6
	1997..	205 373	56 352	149 021	X
334310	Audio & video equipment mfg	177 966	35 440	142 526	6
	1997..	205 373	56 352	149 021	X
3344	Semiconductor & other electronic component mfg ..	10 477 883	2 051 255	8 426 628	2
	1997..	14 089 385	2 533 290	11 556 095	X
33441	Semiconductor & other electronic component mfg	10 477 883	2 051 255	8 426 628	2
	1997..	14 089 385	2 533 290	11 556 095	X
334411	Electron tube mfg	123 918	13 236	110 682	3
	1997..	161 056	48 958	112 098	X
334412	Bare printed circuit board mfg	703 484	96 373	607 112	16
	1997..	693 121	132 835	560 286	X
334413	Semiconductor & related device mfg	7 917 415	1 686 993	6 230 422	2
	1997..	11 557 382	2 131 751	9 425 631	X
334414	Electronic capacitor mfg	153 020	14 900	138 120	12
	1997..	124 096	17 099	106 997	X
334415	Electronic resistor mfg	57 746	5 017	52 729	10
	1997..	56 012	6 936	49 076	X
334416	Electronic coil, transformer, & other inductor mfg	54 651	13 632	41 020	12
	1997..	37 038	5 951	31 087	X
334417	Electronic connector mfg	315 517	47 815	267 702	9
	1997..	234 071	23 754	210 317	X
334418	Printed circuit assembly (electronic assembly) mfg	809 862	135 544	674 318	13
	1997..	795 997	113 779	682 218	X
334419	Other electronic component mfg	342 270	37 746	304 524	3
	1997..	430 612	52 227	378 385	X
3345	Navigational, measuring, medical, & control instruments mfg	3 311 297	630 710	2 680 587	4
	1997..	3 014 597	578 759	2 435 838	X
33451	Navigational, measuring, medical, & control instruments mfg	3 311 297	630 710	2 680 587	4
	1997..	3 014 597	578 759	2 435 838	X
334510	Electromedical & electrotherapeutic apparatus mfg	456 918	89 153	367 765	13
	1997..	433 609	78 618	354 991	X
334511	Search, detection, navigation, & guidance instrument mfg	1 100 895	203 388	897 508	10
	1997..	1 014 264	186 214	828 050	X
334512	Automatic environmental control mfg	113 095	12 517	100 578	7
	1997..	114 952	11 523	103 429	X
334513	Industrial process control instrument mfg	279 260	41 476	237 784	8
	1997..	214 386	34 265	180 121	X
334514	Totalizing fluid meter & counting device mfg ...	131 218	13 072	118 146	6
	1997..	116 073	10 945	105 128	X
334515	Electricity measuring & testing instrument mfg ..	652 628	161 815	490 813	4
	1997..	674 182	174 972	499 210	X
334516	Analytical laboratory instrument mfg	315 524	62 969	252 555	3
	1997..	203 585	44 122	159 463	X
334517	Irradiation apparatus mfg	68 413	4 891	63 522	1
	1997..	75 942	8 710	67 232	X
334518	Watch, clock, & part mfg	31 014	7 580	23 434	12
	1997..	26 215	4 792	21 423	X
334519	Other measuring & controlling device mfg	162 332	33 850	128 481	7
	1997..	141 389	24 598	116 791	X
3346	Mfg & reproducing magnetic & optical media	825 876	105 803	720 073	5
	1997..	883 193	136 853	746 340	X
33461	Mfg & reproducing magnetic & optical media	825 876	105 803	720 073	5
	1997..	883 193	136 853	746 340	X
334611	Software reproducing	76 652	12 362	64 289	35
	1997..	140 935	13 670	127 265	X
334612	Prerecorded CD (except software), tape, & record reproducing	407 462	46 041	361 421	7
	1997..	294 773	42 403	252 370	X
334613	Magnetic & optical recording media mfg	341 763	47 400	294 363	3
	1997..	447 485	80 780	366 705	X
335	Electrical equipment, appliance, & component mfg	4 246 767	790 992	3 455 775	4
	1997..	3 584 385	645 565	2 938 820	X
3351	Electric lighting equipment mfg	393 604	51 310	342 294	10
	1997..	406 682	75 014	331 668	X
33511	Electric lamp bulb & part mfg	144 529	3 357	141 172	5
	1997..	173 922	17 354	156 568	X
335110	Electric lamp bulb & part mfg	144 529	3 357	141 172	5
	1997..	173 922	17 354	156 568	X
33512	Lighting fixture mfg	249 075	47 953	201 122	16
	1997..	232 760	57 660	175 100	X
335121	Residential electric lighting fixture mfg	105 459	15 325	90 134	33
	1997..	59 451	10 661	48 790	X
335122	Commercial/industrial/institutional electric lighting fixture mfg	55 843	8 086	47 757	7
	1997..	96 023	32 933	63 090	X
335129	Other lighting equipment mfg	87 773	24 541	63 232	23
	1997..	77 286	14 066	63 220	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry		Total	Buildings and other structures	Machinery and equipment	Relative standard
			(\$1,000)	(\$1,000)	(\$1,000)	error of estimate ¹ (percent) for column—
			A	B	C	A
335	Electrical equipment, appliance, & component mfg—					
	Con.					
3352	Household appliance mfg	1998..	765 078	136 481	628 597	12
		1997..	502 198	63 478	438 720	X
33521	Small electrical appliance mfg	1998..	172 600	8 403	164 198	27
		1997..	171 457	30 484	140 973	X
335211	Electric housewares & household fan mfg	1998..	93 139	3 587	89 552	50
		1997..	85 862	5 923	79 939	X
335212	Household vacuum cleaner mfg	1998..	79 462	4 816	74 646	3
		1997..	85 595	24 561	61 034	X
33522	Major appliance mfg	1998..	592 478	128 078	464 400	13
		1997..	330 741	32 994	297 747	X
335221	Household cooking appliance mfg	1998..	209 386	37 374	172 013	36
		1997..	135 686	21 886	113 800	X
335222	Household refrigerator & home freezer mfg	1998..	118 152	7 587	110 565	3
		1997..	92 679	5 121	87 558	X
335224	Household laundry equipment mfg	1998..	87 072	5 140	81 932	2
		1997..	37 355	2 901	34 454	X
335228	Other major household appliance mfg	1998..	177 868	77 977	99 891	1
		1997..	65 021	3 086	61 935	X
3353	Electrical equipment mfg	1998..	1 282 795	254 122	1 028 672	11
		1997..	981 125	176 878	804 247	X
33531	Electrical equipment mfg	1998..	1 282 795	254 122	1 028 672	11
		1997..	981 125	176 878	804 247	X
335311	Power, distribution, & specialty transformer mfg	1998..	176 204	26 226	149 979	36
		1997..	132 060	31 078	100 982	X
335312	Motor & generator mfg	1998..	432 124	37 632	394 492	15
		1997..	312 116	36 351	275 765	X
335313	Switchgear & switchboard apparatus mfg	1998..	209 396	19 980	189 417	2
		1997..	196 543	36 833	159 710	X
335314	Relay & industrial control mfg	1998..	465 070	170 285	294 785	24
		1997..	340 406	72 616	267 790	X
3359	Other electrical equipment & component mfg	1998..	1 805 290	349 079	1 456 211	3
		1997..	1 694 380	330 195	1 364 185	X
33591	Battery mfg	1998..	247 405	31 078	216 327	1
		1997..	297 776	86 603	211 173	X
335911	Storage battery mfg	1998..	133 758	16 230	117 528	2
		1997..	171 483	62 366	109 117	X
335912	Primary battery mfg	1998..	113 647	14 848	98 799	1
		1997..	126 293	24 237	102 056	X
33592	Communication & energy wire & cable mfg	1998..	755 793	179 527	576 266	4
		1997..	609 451	109 255	500 196	X
335921	Fiber optic cable mfg	1998..	298 718	105 692	193 026	1
		1997..	192 111	27 181	164 930	X
335929	Other communication & energy wire mfg	1998..	457 075	73 834	383 241	6
		1997..	417 340	82 074	335 266	X
33593	Wiring device mfg	1998..	372 815	71 493	301 322	5
		1997..	380 729	55 033	325 696	X
335931	Current-carrying wiring device mfg	1998..	234 242	42 203	192 039	6
		1997..	219 293	35 755	183 538	X
335932	Noncurrent-carrying wiring device mfg	1998..	138 573	29 290	109 283	6
		1997..	161 436	19 278	142 158	X
33599	All other electrical equipment & component mfg	1998..	429 277	66 981	362 296	7
		1997..	406 424	79 304	327 120	X
335991	Carbon & graphite product mfg	1998..	154 391	16 323	138 068	10
		1997..	182 575	32 282	150 293	X
335999	All other miscellaneous electrical equipment & component mfg	1998..	274 886	50 658	224 228	10
		1997..	223 849	47 022	176 827	X
336	Transportation equipment mfg	1998..	20 022 363	2 501 734	17 520 628	1
		1997..	19 077 372	2 653 351	16 424 021	X
3361	Motor vehicle mfg	1998..	5 380 668	503 967	4 876 701	1
		1997..	5 243 971	516 846	4 727 125	X
33611	Automobile & light duty motor vehicle mfg	1998..	5 242 320	461 541	4 780 779	1
		1997..	5 123 236	495 977	4 627 259	X
336111	Automobile mfg	1998..	3 163 350	217 770	2 945 580	1
		1997..	3 353 750	265 740	3 088 010	X
336112	Light truck & utility vehicle mfg	1998..	2 078 970	243 771	1 835 199	1
		1997..	1 769 486	230 237	1 539 249	X
33612	Heavy duty truck mfg	1998..	138 348	42 426	95 922	1
		1997..	120 735	20 869	99 866	X
336120	Heavy duty truck mfg	1998..	138 348	42 426	95 922	1
		1997..	120 735	20 869	99 866	X
3362	Motor vehicle body & trailer mfg	1998..	467 752	121 036	346 716	5
		1997..	442 175	140 621	301 554	X
33621	Motor vehicle body & trailer mfg	1998..	467 752	121 036	346 716	5
		1997..	442 175	140 621	301 554	X
336211	Motor vehicle body mfg	1998..	224 766	30 161	194 605	7
		1997..	230 356	63 669	166 687	X
336212	Truck trailer mfg	1998..	136 416	51 477	84 940	10
		1997..	89 608	20 750	68 858	X
336213	Motor home mfg	1998..	33 417	10 519	22 898	6
		1997..	50 483	25 191	25 292	X
336214	Travel trailer & camper mfg	1998..	73 153	28 879	44 274	16
		1997..	71 728	31 011	40 717	X
3363	Motor vehicle parts mfg	1998..	9 739 010	837 881	8 901 129	1
		1997..	9 476 028	904 750	8 571 278	X
33631	Motor vehicle gasoline engine & engine parts mfg	1998..	1 764 913	130 855	1 634 058	1
		1997..	1 923 971	204 622	1 719 349	X
336311	Carburetor, piston, piston ring, & valve mfg	1998..	197 673	8 345	189 328	7
		1997..	180 295	12 242	168 053	X
336312	Gasoline engine & engine parts mfg	1998..	1 567 240	122 510	1 444 730	1
		1997..	1 743 676	192 380	1 551 296	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Total (\$1,000)	Buildings and other structures (\$1,000)	Machinery and equipment (\$1,000)	Relative standard error of estimate ¹ (percent) for column—
					A
336	Transportation equipment mfg—Con.				
3363	Motor vehicle parts mfg—Con.				
33632	Motor vehicle electrical & electronic equipment mfg	1998.. 769 215	56 530	712 686	3
		1997.. 864 519	70 701	793 818	X
336321	Vehicular lighting equipment mfg	1998.. 104 187	11 422	92 765	2
		1997.. 169 235	10 964	158 271	X
336322	Other motor vehicle electrical & electronic equipment mfg	1998.. 665 028	45 108	619 920	3
		1997.. 695 284	59 737	635 547	X
33633	Motor vehicle steering & suspension component (except spring) mfg	1998.. 577 369	34 067	543 302	3
		1997.. 550 375	29 575	520 800	X
336330	Motor vehicle steering & suspension component (except spring) mfg	1998.. 577 369	34 067	543 302	3
		1997.. 550 375	29 575	520 800	X
33634	Motor vehicle brake system mfg	1998.. 503 292	42 120	461 171	5
		1997.. 486 471	52 968	433 503	X
336340	Motor vehicle brake system mfg	1998.. 503 292	42 120	461 171	5
		1997.. 486 471	52 968	433 503	X
33635	Motor vehicle transmission & power train parts mfg	1998.. 2 274 656	106 626	2 168 030	4
		1997.. 1 955 083	110 633	1 844 450	X
336350	Motor vehicle transmission & power train parts mfg	1998.. 2 274 656	106 626	2 168 030	4
		1997.. 1 955 083	110 633	1 844 450	X
33636	Motor vehicle seating & interior trim mfg	1998.. 323 224	52 465	270 759	6
		1997.. 288 891	32 926	255 965	X
336360	Motor vehicle seating & interior trim mfg	1998.. 323 224	52 465	270 759	6
		1997.. 288 891	32 926	255 965	X
33637	Motor vehicle metal stamping	1998.. 1 386 746	155 169	1 231 577	4
		1997.. 1 518 707	142 175	1 376 532	X
336370	Motor vehicle metal stamping	1998.. 1 386 746	155 169	1 231 577	4
		1997.. 1 518 707	142 175	1 376 532	X
33639	Other motor vehicle parts mfg	1998.. 2 139 595	260 050	1 879 546	3
		1997.. 1 888 011	261 150	1 626 861	X
336391	Motor vehicle air-conditioning mfg	1998.. 252 762	26 027	226 735	2
		1997.. 188 566	15 255	173 311	X
336399	All other motor vehicle parts mfg	1998.. 1 886 834	234 023	1 652 811	4
		1997.. 1 699 445	245 895	1 453 550	X
3364	Aerospace product & parts mfg	1998.. 3 475 085	861 136	2 613 949	2
		1997.. 3 130 514	892 602	2 237 912	X
33641	Aerospace product & parts mfg	1998.. 3 475 085	861 136	2 613 949	2
		1997.. 3 130 514	892 602	2 237 912	X
336411	Aircraft mfg	1998.. 913 887	331 190	582 697	3
		1997.. 775 165	348 942	426 223	X
336412	Aircraft engine & engine parts mfg	1998.. 719 684	76 208	643 476	2
		1997.. 678 246	80 052	598 194	X
336413	Other aircraft part & auxiliary equipment mfg ...	1998.. 988 569	166 142	822 427	6
		1997.. 924 760	186 210	738 550	X
336414	Guided missile & space vehicle mfg	1998.. 699 120	260 727	438 393	1
		1997.. 634 227	250 228	383 999	X
336415	Guided missile & space vehicle propulsion unit & parts mfg	1998.. 112 405	20 563	91 842	1
		1997.. 89 321	21 982	67 339	X
336419	Other guided missile & space vehicle parts & auxiliary equip mfg	1998.. 41 420	6 307	35 113	2
		1997.. 28 795	5 188	23 607	X
3365	Railroad rolling stock mfg	1998.. 198 906	32 343	166 563	1
		1997.. 197 174	22 488	174 686	X
33651	Railroad rolling stock mfg	1998.. 198 906	32 343	166 563	1
		1997.. 197 174	22 488	174 686	X
336510	Railroad rolling stock mfg	1998.. 198 906	32 343	166 563	1
		1997.. 197 174	22 488	174 686	X
3366	Ship & boat building	1998.. 492 040	110 724	381 316	4
		1997.. 366 855	126 409	240 446	X
33661	Ship & boat building	1998.. 492 040	110 724	381 316	4
		1997.. 366 855	126 409	240 446	X
336611	Ship building & repairing	1998.. 257 632	88 827	168 806	7
		1997.. 244 635	93 243	151 392	X
336612	Boat building	1998.. 234 408	21 897	212 511	2
		1997.. 122 220	33 166	89 054	X
3369	Other transportation equipment mfg	1998.. 268 901	34 647	234 254	5
		1997.. 220 655	49 635	171 020	X
33699	Other transportation equipment mfg	1998.. 268 901	34 647	234 254	5
		1997.. 220 655	49 635	171 020	X
336991	Motorcycle, bicycle, & parts mfg	1998.. 132 271	10 194	122 076	9
		1997.. 104 852	19 553	85 299	X
336992	Military armored vehicle, tank, & tank component mfg	1998.. 16 033	5 230	10 803	9
		1997.. 17 355	6 013	11 342	X
336999	All other transportation equipment mfg	1998.. 120 597	19 222	101 375	5
		1997.. 98 448	24 069	74 379	X
337	Furniture & related product mfg	1998.. 1 958 865	521 962	1 436 904	4
		1997.. 1 746 462	373 826	1 372 636	X
3371	Household & institutional furniture & kitchen cabinet mfg	1998.. 913 141	255 785	657 356	6
		1997.. 860 945	202 332	658 613	X
33711	Wood kitchen cabinet & counter top mfg	1998.. 246 893	57 452	189 441	5
		1997.. 243 781	55 497	188 284	X
337110	Wood kitchen cabinet & counter top mfg	1998.. 246 893	57 452	189 441	5
		1997.. 243 781	55 497	188 284	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Total	Buildings and other structures	Machinery and equipment	Relative standard error of estimate ¹ (percent) for column—
		(\$1,000)	(\$1,000)	(\$1,000)	
		A	B	C	A
337	Furniture & related product mfg—Con.				
3371	Household & institutional furniture & kitchen cabinet mfg—Con.				
33712	Household & institutional furniture mfg	1998.. 666 248	198 333	467 915	7
		1997.. 617 164	146 835	470 329	X
337121	Upholstered household furniture mfg	1998.. 148 488	74 073	74 414	25
		1997.. 107 015	33 983	73 032	X
337122	Nonupholstered wood household furniture mfg	1998.. 271 061	62 604	208 457	6
		1997.. 297 539	69 717	227 822	X
337124	Metal household furniture mfg	1998.. 83 184	31 489	51 695	10
		1997.. 77 602	19 381	58 221	X
337125	Household furniture (except wood & metal) mfg	1998.. 8 963	1 106	7 858	10
		1997.. 13 352	1 724	11 628	X
337127	Institutional furniture mfg	1998.. 145 092	28 563	116 528	19
		1997.. 115 359	21 676	93 683	X
337129	Wood television, radio, & sewing machine cabinet mfg	1998.. 9 459	498	8 962	56
		1997.. 6 297	354	5 943	X
3372	Office furniture (including fixtures) mfg	1998.. 865 330	230 149	635 181	7
		1997.. 715 384	127 908	587 476	X
33721	Office furniture (including fixtures) mfg	1998.. 865 330	230 149	635 181	7
		1997.. 715 384	127 908	587 476	X
337211	Wood office furniture mfg	1998.. 156 132	45 383	110 749	5
		1997.. 111 028	29 435	81 593	X
337212	Custom architectural woodwork & millwork mfg	1998.. 46 473	11 558	34 915	19
		1997.. 55 804	13 519	42 285	X
337214	Office furniture (except wood) mfg	1998.. 357 682	67 663	290 019	3
		1997.. 321 503	36 319	285 184	X
337215	Showcase, partition, shelving, & locker mfg	1998.. 305 043	105 545	199 498	20
		1997.. 227 049	48 635	178 414	X
3379	Other furniture related product mfg	1998.. 180 394	36 028	144 366	9
		1997.. 170 133	43 586	126 547	X
33791	Mattress mfg	1998.. 119 565	23 771	95 794	13
		1997.. 125 633	27 463	98 170	X
337910	Mattress mfg	1998.. 119 565	23 771	95 794	13
		1997.. 125 633	27 463	98 170	X
33792	Blind & shade mfg	1998.. 60 829	12 257	48 573	9
		1997.. 44 500	16 123	28 377	X
337920	Blind & shade mfg	1998.. 60 829	12 257	48 573	9
		1997.. 44 500	16 123	28 377	X
339	Miscellaneous mfg	1998.. 3 911 419	920 401	2 991 018	5
		1997.. 3 474 860	648 651	2 826 209	X
3391	Medical equipment & supplies mfg	1998.. 2 112 984	541 602	1 571 382	9
		1997.. 1 733 657	335 656	1 398 001	X
33911	Medical equipment & supplies mfg	1998.. 2 112 984	541 602	1 571 382	9
		1997.. 1 733 657	335 656	1 398 001	X
339111	Laboratory apparatus & furniture mfg	1998.. 73 310	15 926	57 383	15
		1997.. 69 675	15 127	54 548	X
339112	Surgical & medical instrument mfg	1998.. 780 321	171 269	609 052	5
		1997.. 714 634	148 640	565 994	X
339113	Surgical appliance & supplies mfg	1998.. 780 589	249 275	531 314	22
		1997.. 564 826	111 105	453 721	X
339114	Dental equipment & supplies mfg	1998.. 81 479	19 939	61 540	6
		1997.. 72 376	13 582	58 794	X
339115	Ophthalmic goods mfg	1998.. 320 412	75 996	244 416	3
		1997.. 238 237	36 746	201 491	X
339116	Dental laboratories	1998.. 76 874	S	S	9
		1997.. 73 909	S	S	X
3399	Other miscellaneous mfg	1998.. 1 798 435	378 799	1 419 636	4
		1997.. 1 741 203	312 995	1 428 208	X
33991	Jewelry & silverware mfg	1998.. 134 188	19 546	114 643	8
		1997.. 113 352	19 005	94 347	X
339911	Jewelry (except costume) mfg	1998.. 66 712	14 516	52 196	13
		1997.. 61 140	11 513	49 627	X
339912	Silverware & plated ware mfg	1998.. 21 044	2 485	18 559	13
		1997.. 19 860	4 703	15 157	X
339913	Jewelers' material & lapidary work mfg	1998.. 13 614	1 003	12 611	25
		1997.. 11 598	790	10 808	X
339914	Costume jewelry & novelty mfg	1998.. 32 818	1 542	31 276	8
		1997.. 20 754	1 999	18 755	X
33992	Sporting & athletic goods mfg	1998.. 339 560	67 651	271 909	6
		1997.. 349 764	57 808	291 956	X
339920	Sporting & athletic goods mfg	1998.. 339 560	67 651	271 909	6
		1997.. 349 764	57 808	291 956	X
33993	Doll, toy, & game mfg	1998.. 126 890	27 363	99 527	5
		1997.. 138 393	17 888	120 505	X
339931	Doll & stuffed toy mfg	1998.. 2 050	1 049	1 001	4
		1997.. 3 939	944	2 995	X
339932	Game, toy, & children's vehicle mfg	1998.. 124 840	26 313	98 527	5
		1997.. 134 454	16 944	117 510	X
33994	Office supplies (except paper) mfg	1998.. 143 681	10 906	132 775	8
		1997.. 120 344	17 208	103 136	X
339941	Pen & mechanical pencil mfg	1998.. 72 098	5 001	67 097	16
		1997.. 53 963	8 646	45 317	X
339942	Lead pencil & art good mfg	1998.. 44 959	2 435	42 524	6
		1997.. 28 915	4 276	24 639	X
339943	Marking device mfg	1998.. 4 288	908	3 379	15
		1997.. 20 144	3 115	17 029	X
339944	Carbon paper & inked ribbon mfg	1998.. 22 335	2 561	19 775	8
		1997.. 17 322	1 171	16 151	X

See footnotes at end of table.

Table 5. Capital Expenditures for Plant and Equipment for Industry Groups and Industries: 1998 and 1997—Con.

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

NAICS code	Industry group and industry	Total (\$1,000)	Buildings and other structures (\$1,000)	Machinery and equipment (\$1,000)	Relative standard error of estimate ¹ (percent) for column—
		A	B	C	A
339	Miscellaneous mfg—Con.				
3399	Other miscellaneous mfg—Con.				
33995	Sign mfg	198.. 187 823	39 411	148 412	12
		1997.. 235 469	44 244	191 225	X
339950	Sign mfg	198.. 187 823	39 411	148 412	12
		1997.. 235 469	44 244	191 225	X
33999	All other miscellaneous mfg	198.. 866 294	213 924	652 370	7
		1997.. 783 881	156 842	627 039	X
339991	Gasket, packing, & sealing device mfg	198.. 239 982	27 875	212 108	14
		1997.. 200 288	25 462	174 826	X
339992	Musical instrument mfg	198.. 56 092	18 097	37 995	18
		1997.. 36 466	11 187	25 279	X
339993	Fastener, button, needle, & pin mfg	198.. 52 849	10 518	42 331	6
		1997.. 48 265	7 429	40 836	X
339994	Broom, brush, & mop mfg	198.. 208 075	96 611	111 465	8
		1997.. 90 254	13 108	77 146	X
339995	Burial casket mfg	198.. 18 965	3 615	15 351	3
		1997.. 28 453	4 642	23 811	X
339999	All other miscellaneous mfg	198.. 290 330	57 210	233 120	14
		1997.. 380 155	95 014	285 141	X

¹Description of relative standard error of estimate is given in Appendix B. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note: 1997 data may differ from that published in the 1997 Census of Manufactures final industry series because of changes encountered in subsequent 1997 census review or revisions discovered during 1998 Annual Survey of Manufactures review.

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—			
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D
		A	B	C	D	E	F	G	H	A	B	C	D
31-33	Manufacturing	447 451 378	153 469 329	139 885 749	154 096 300	434 447 532	148 807 459	134 205 732	151 434 341	1	1	1	1
		433 804 676	148 459 478	133 408 829	151 936 369	420 714 719	143 056 487	132 726 178	144 932 054	X	X	X	X
311	Food mfg	30 340 597	16 814 515	2 818 380	10 707 702	30 267 175	16 695 011	3 042 416	10 529 748	1	1	2	1
		30 270 402	16 596 938	3 026 863	10 646 601	29 606 271	16 238 798	2 969 589	10 397 884	X	X	X	X
3111	Animal food mfg	1 183 839	471 897	152 907	559 035	1 247 053	514 147	146 953	585 954	2	2	11	2
		1 249 794	498 107	175 834	575 853	1 230 036	518 371	118 451	593 214	X	X	X	X
31111	Animal food mfg	1 183 839	471 897	152 907	559 035	1 247 053	514 147	146 953	585 954	2	2	11	2
		1 249 794	498 107	175 834	575 853	1 230 036	518 371	118 451	593 214	X	X	X	X
311111	Dog & cat food mfg	393 490	183 697	10 334	199 460	401 619	205 294	6 262	190 063	1	1	17	1
		428 590	212 997	24 045	191 548	390 833	191 477	26 698	172 658	X	X	X	X
311119	Other animal food mfg	790 348	288 201	142 573	359 574	845 434	308 852	140 691	395 891	3	4	11	3
		821 204	285 110	151 789	384 305	839 203	326 894	91 753	420 556	X	X	X	X
3112	Grain & oilseed milling	3 828 338	1 423 935	333 342	2 071 061	3 978 873	1 445 764	354 745	2 178 364	1	3	5	2
		4 022 859	1 498 944	349 190	2 174 725	4 125 146	1 495 771	343 580	2 285 795	X	X	X	X
31121	Flour milling & malt mfg	1 117 717	307 928	85 858	723 931	1 229 281	346 755	111 891	770 635	3	7	19	5
		1 223 198	349 228	111 361	762 609	1 240 103	341 513	109 418	789 172	X	X	X	X
311211	Flour milling	599 551	111 787	14 916	472 848	617 676	132 170	15 073	470 433	2	3	4	3
		611 131	133 018	14 358	463 755	618 554	141 571	13 734	463 249	X	X	X	X
311212	Rice milling	336 029	98 962	38 769	198 298	397 206	130 363	58 467	208 376	7	4	42	8
		397 766	131 266	58 515	207 985	391 874	111 909	43 571	236 394	X	X	X	X
311213	Malt mfg	182 137	97 179	32 174	52 785	214 399	84 222	38 351	91 826	6	21	5	55
		214 301	84 944	38 488	90 869	229 675	88 033	52 113	89 529	X	X	X	X
31122	Starch & vegetable fats & oils mfg	2 383 960	997 894	244 158	1 141 907	2 398 355	986 565	238 808	1 172 982	1	3	1	1
		2 429 508	1 008 132	233 964	1 187 412	2 557 535	1 032 119	231 639	1 293 777	X	X	X	X
311221	Wet corn milling	554 072	284 977	48 351	220 744	536 278	263 965	48 846	223 667	1	1	1	1
		548 113	267 802	49 261	231 050	564 921	274 929	64 807	225 185	X	X	X	X
311222	Soybean processing	886 926	385 482	31 989	469 455	955 613	422 553	43 311	489 749	1	1	1	1
		968 059	427 702	43 546	496 811	1 018 284	402 230	32 889	583 165	X	X	X	X
311223	Other oilseed processing	429 011	138 161	48 786	242 065	381 251	93 462	39 607	248 182	8	24	1	1
		423 705	103 250	37 661	282 794	485 959	158 121	37 548	290 290	X	X	X	X
311225	Fats & oils refining & blending	513 951	189 275	115 032	209 644	525 213	206 585	107 044	211 584	1	2	2	2
		489 631	209 378	103 496	176 577	488 371	196 839	96 395	195 137	X	X	X	X
31123	Breakfast cereal mfg	326 661	118 112	3 325	205 223	351 237	112 444	4 046	234 747	2	2	1	3
		370 153	141 584	3 865	224 704	327 508	122 139	2 523	202 846	X	X	X	X
311230	Breakfast cereal mfg	326 661	118 112	3 325	205 223	351 237	112 444	4 046	234 747	2	2	1	3
		370 153	141 584	3 865	224 704	327 508	122 139	2 523	202 846	X	X	X	X
3113	Sugar & confectionery product mfg	3 559 588	1 956 994	228 044	1 374 550	3 291 275	1 806 559	249 750	1 234 966	3	3	1	4
		3 209 328	1 740 601	255 912	1 212 815	2 994 549	1 525 157	303 768	1 165 624	X	X	X	X
31131	Sugar mfg	1 499 222	974 043	111 403	413 776	1 453 570	902 446	132 959	418 165	4	6	1	1
		1 397 257	840 788	145 290	411 179	1 327 365	724 981	186 063	416 321	X	X	X	X
311311	Sugarcane mills	453 755	397 654	6 822	49 279	383 256	325 472	10 071	47 713	13	15	1	1
		383 113	325 276	10 048	47 789	320 449	261 876	11 307	47 266	X	X	X	X
311312	Cane sugar refining	226 312	78 616	32 647	115 049	221 307	82 496	32 385	106 426	1	1	1	1
		229 379	83 953	44 945	100 481	254 854	79 860	40 444	134 550	X	X	X	X
311313	Beet sugar mfg	819 155	497 773	71 934	249 448	849 007	494 478	90 503	264 026	1	1	1	1
		784 765	431 559	90 297	262 909	752 062	383 245	134 312	234 505	X	X	X	X
31132	Chocolate & confectionery mfg from cacao beans	639 189	254 192	53 487	331 510	447 315	169 078	45 296	232 941	10	4	1	16
		435 261	165 361	44 679	225 221	404 129	170 597	48 333	185 199	X	X	X	X
311320	Chocolate & confectionery mfg from cacao beans	639 189	254 192	53 487	331 510	447 315	169 078	45 296	232 941	10	4	1	16
		435 261	165 361	44 679	225 221	404 129	170 597	48 333	185 199	X	X	X	X
31133	Confectionery mfg from purchased chocolate	804 263	447 583	39 226	317 454	774 219	454 188	44 385	275 646	1	1	4	2
		788 561	463 412	43 801	281 348	693 274	384 305	40 691	268 278	X	X	X	X
311330	Confectionery mfg from purchased chocolate	804 263	447 583	39 226	317 454	774 219	454 188	44 385	275 646	1	1	4	2
		788 561	463 412	43 801	281 348	693 274	384 305	40 691	268 278	X	X	X	X
31134	Nonchocolate confectionery mfg	616 914	281 177	23 928	311 810	616 171	280 846	27 110	308 215	1	1	11	1
		588 249	271 040	22 142	295 067	569 781	245 274	28 681	295 826	X	X	X	X
311340	Nonchocolate confectionery mfg	616 914	281 177	23 928	311 810	616 171	280 846	27 110	308 215	1	1	11	1
		588 249	271 040	22 142	295 067	569 781	245 274	28 681	295 826	X	X	X	X
3114	Fruit & vegetable preserving & specialty food mfg	8 390 927	5 806 412	867 126	1 717 389	8 262 140	5 621 058	912 906	1 728 176	1	1	1	1
		8 248 464	5 607 055	886 997	1 754 412	8 349 402	5 717 261	925 941	1 706 200	X	X	X	X
31141	Frozen food mfg	2 911 725	1 980 411	245 400	685 914	2 685 118	1 790 358	226 197	668 562	1	1	1	1
		2 622 582	1 710 326	207 146	705 110	2 669 309	1 742 393	250 695	676 221	X	X	X	X
311411	Frozen fruit, juice, & vegetable mfg	2 164 860	1 552 287	206 586	405 988	1 995 188	1 400 264	192 054	402 870	1	1	2	2
		1 968 685	1 354 702	176 116	437 867	2 043 513	1 399 980	222 967	420 566	X	X	X	X
311412	Frozen specialty food mfg	746 864	428 123	38 814	279 927	689 930	390 094	34 143	265 693	1	1	1	1
		653 897	355 624	31 030	267 243	625 796	342 413	27 728	255 655	X	X	X	X
31142	Fruit & vegetable canning, pickling, & drying	5 479 202	3 826 001	621 727	1 031 475	5 577 022	3 830 699	686 709	1 059 614	1	1	1	1
		5 625 882	3 896 729	679 851	1 049 302	5 680 093	3 974 868	675 246	1 029 979	X	X	X	X
311421	Fruit & vegetable canning	3 880 429	2 722 816	449 531	708 082	3 940 316	2 738 262	489 455	712 599	2	2	1	2
		3 947 290	2 780 253	483 157	683 880	3 965 868	2 866 853	466 729	632 286	X	X	X	X
311422	Specialty canning	831 284	577 825	41 988	211 472	815 908	548 953	40 097	226 857	1	1	3	2
		850 305	570 864	40 379	239 062	855 371	566 570	41 611	247 190	X	X	X	X
311423	Dried & dehydrated food mfg	767 489	525 360	130 208	111 921	820 799	543 485	157 157	120 157	2	2	5	5
		828 287	545 612	156 315	126 360	858 854	541 445	166 906	150 503	X	X	X	X
3115	Dairy product mfg	3 130 402	1 985 433	194 530	950 439	2 908 628	1 827 095	177 609	903 924	2	3	5	1
		2 850 667	1 772 010	176 937	90								

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—										
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D							
		A	B	C	D	E	F	G	H	A	B	C	D							
311	Food mfg—Con.																			
3115	Dairy product mfg—Con.																			
31151	Dairy product (except frozen) mfg—Con.																			
311514	Dry, condensed, & evaporated dairy product mfg	1998.. 635 206	411 078	48 162	175 966	566 465	353 201	42 740	170 524	5	6	15	6							
		1997.. 563 519	350 566	42 511	170 447	570 479	365 810	39 168	165 501	X	X	X	X							
31152	Ice cream & frozen dessert mfg	1998.. 366 108	233 569	5 349	127 190	393 383	244 836	4 989	143 558	2	3	12	2							
		1997.. 400 163	250 515	7 123	142 525	399 946	248 350	7 158	144 438	X	X	X	X							
311520	Ice cream & frozen dessert mfg	1998.. 366 108	233 569	5 349	127 190	393 383	244 836	4 989	143 558	2	3	12	2							
		1997.. 400 163	250 515	7 123	142 525	399 946	248 350	7 158	144 438	X	X	X	X							
3116	Meat product mfg	1998.. 3 657 673	2 275 084	419 684	962 906	3 901 610	2 441 242	512 854	947 514	1	1	1	1							
		1997.. 3 923 673	2 463 114	482 606	977 953	3 840 807	2 349 293	506 688	984 826	X	X	X	X							
31161	Animal slaughtering & processing	1998.. 3 657 673	2 275 084	419 684	962 906	3 901 610	2 441 242	512 854	947 514	1	1	1	1							
		1997.. 3 923 673	2 463 114	482 606	977 953	3 840 807	2 349 293	506 688	984 826	X	X	X	X							
311611	Animal (except poultry) slaughtering	1998.. 1 116 985	819 313	94 073	203 598	1 219 644	902 251	123 490	193 902	1	1	3	1							
		1997.. 1 257 694	933 318	108 165	216 211	1 269 902	924 258	97 941	247 703	X	X	X	X							
311612	Meat processed from carcasses	1998.. 1 281 677	722 468	138 589	420 620	1 295 838	707 049	152 679	436 110	2	4	4	3							
		1997.. 1 270 072	689 133	146 297	434 642	1 251 225	698 404	159 686	393 135	X	X	X	X							
311613	Rendering & meat byproduct processing	1998.. 108 877	81 008	5 910	21 960	112 591	86 596	6 127	19 868	2	2	9	6							
		1997.. 111 003	86 960	5 637	18 406	100 729	76 255	6 242	18 232	X	X	X	X							
311615	Poultry processing	1998.. 1 150 134	652 295	181 112	316 727	1 273 536	745 346	230 557	297 633	1	1	1	2							
		1997.. 1 284 904	753 703	222 507	308 694	1 218 951	650 376	242 819	325 756	X	X	X	X							
3117	Seafood product preparation & packaging	1998.. 960 677	605 045	20 206	335 427	1 134 704	760 776	15 326	358 603	4	4	11	4							
		1997.. 1 093 535	751 579	20 212	321 744	1 030 262	754 395	15 155	260 712	X	X	X	X							
31171	Seafood product preparation & packaging	1998.. 960 677	605 045	20 206	335 427	1 134 704	760 776	15 326	358 603	4	4	11	4							
		1997.. 1 093 535	751 579	20 212	321 744	1 030 262	754 395	15 155	260 712	X	X	X	X							
311711	Seafood canning	1998.. 132 705	91 948	2 310	38 447	149 574	104 592	2 876	42 106	13	15	27	10							
		1997.. 157 718	111 824	3 212	42 682	151 546	112 104	1 640	37 802	X	X	X	X							
311712	Fresh & frozen seafood processing	1998.. 827 973	513 097	17 896	296 979	985 130	656 184	12 450	316 497	4	4	12	4							
		1997.. 935 817	639 755	17 000	279 062	878 716	642 291	13 515	222 910	X	X	X	X							
3118	Bakeries & tortilla mfg	1998.. 1 630 972	733 767	25 092	872 114	1 613 494	699 626	29 836	884 032	7	5	13	10							
		1997.. 1 676 628	711 340	31 700	933 588	1 651 336	710 373	34 751	906 212	X	X	X	X							
31181	Bread & bakery product mfg ..	1998.. 661 762	206 022	12 647	443 093	652 573	173 996	15 161	463 416	16	16	25	19							
		1997.. 700 498	180 743	16 437	503 318	681 029	184 333	19 587	477 109	X	X	X	X							
311811	Retail bakeries	1998.. 40 470	34 194	2 604	3 673	29 262	6 521	3 264	19 477	A	98	A	A							
		1997.. 94 686	16 132	5 687	72 867	82 104	12 851	10 420	58 833	X	X	X	X							
311812	Commercial bakeries	1998.. 447 514	104 449	7 379	335 685	443 321	97 010	9 731	336 580	1	1	12	2							
		1997.. 430 071	95 834	8 588	325 649	431 898	102 055	7 076	322 767	X	X	X	X							
311813	Frozen cakes, pies, & other pastries mfg	1998.. 173 778	67 378	2 663	103 736	179 990	70 465	2 166	107 359	5	4	6	7							
		1997.. 175 741	68 777	2 162	104 802	167 027	69 427	2 091	95 509	X	X	X	X							
31182	Cookie, cracker, & pasta mfg	1998.. 926 846	512 701	10 952	403 192	920 847	512 421	12 613	395 813	1	2	1	1							
		1997.. 933 698	518 085	13 276	402 337	926 736	511 959	12 867	401 910	X	X	X	X							
311821	Cookie & cracker mfg	1998.. 490 405	272 741	3 204	214 460	493 974	276 004	4 704	213 266	2	4	4	1							
		1997.. 509 212	290 218	5 162	213 832	517 496	296 986	4 066	216 444	X	X	X	X							
311822	Flour mixes & dough mfg from purchased flour	1998.. 310 853	152 902	6 123	151 827	311 234	157 895	6 102	147 237	1	1	2	1							
		1997.. 309 905	153 168	6 394	150 343	287 760	136 903	5 062	145 795	X	X	X	X							
311823	Dry pasta mfg	1998.. 125 588	87 058	1 625	36 905	115 639	78 522	1 807	35 310	1	1	1	1							
		1997.. 114 581	74 699	1 720	38 162	121 480	78 070	3 739	39 671	X	X	X	X							
31183	Tortilla mfg	1998.. 42 365	15 043	1 493	25 828	40 073	13 208	2 062	24 803	8	4	31	12							
		1997.. 42 432	15 212	1 987	27 933	43 571	14 081	2 297	27 193	X	X	X	X							
311830	Tortilla mfg	1998.. 42 365	15 043	1 493	25 828	40 073	13 208	2 062	24 803	8	4	31	12							
		1997.. 42 432	15 212	1 987	27 933	43 571	14 081	2 297	27 193	X	X	X	X							
3119	Other food mfg	1998.. 3 998 182	1 555 949	577 451	1 864 782	3 929 398	1 578 745	642 439	1 708 215	2	3	6	2							
		1997.. 3 995 454	1 554 188	647 475	1 793 791	3 540 194	1 396 052	554 958	1 589 184	X	X	X	X							
31191	Snack food mfg	1998.. 1 086 721	336 390	259 108	491 223	975 713	339 426	305 202	331 086	7	12	14	4							
		1997.. 1 034 520	360 050	314 968	359 502	921 295	312 913	295 369	313 013	X	X	X	X							
311911	Roasted nuts & peanut butter mfg	1998.. 766 318	195 122	253 173	318 024	674 961	202 086	302 449	170 426	10	21	14	6							
		1997.. 726 074	218 788	311 793	195 493	665 872	215 758	288 025	162 089	X	X	X	X							
311919	Other snack food mfg	1998.. 320 403	141 268	5 935	173 200	300 753	137 340	2 753	160 660	1	1	19	3							
		1997.. 308 446	141 262	3 175	164 009	255 423	97 155	7 344	150 924	X	X	X	X							
31192	Coffee & tea mfg	1998.. 628 844	249 141	86 145	293 558	698 576	267 918	99 275	331 383	1	2	1	2							
		1997.. 681 464	262 723	96 893	321 848	589 246	211 022	77 700	300 524	X	X	X	X							
311920	Coffee & tea mfg	1998.. 628 844	249 141	86 145	293 558	698 576	267 918	99 275	331 383	1	2	1	2							
		1997.. 681 464	262 723	96 893	321 848	589 246	211 022	77 700	300 524	X	X	X	X							
31193	Flavoring syrup & concentrate mfg	1998.. 280 108	116 501	36 257	127 350	326 421	128 860	34 536	163 025	4	3	1	5							
		1997.. 332 651	126 340	34 007	172 304	324 521	142 804	12 475	169 242	X	X	X	X							
311930	Flavoring syrup & concentrate mfg	1998.. 280 108	116 501	36 257	127 350	326 421	128 860	34 536	163 025	4	3	1	5							

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—															
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D												
		A	B	C	D	E	F	G	H	A	B	C	D												
311	Food mfg—Con.																								
3119	Other food mfg—Con.																								
31199	All other food mfg—Con.																								
311999	All other miscellaneous food mfg	1998.. 810 206	333 384	47 517	429 305	783 153	326 350	65 638	391 165	1	1	1	1	1997.. 774 911	336 840	57 315	380 756	721 225	304 288	64 029	352 908	X	X	X	X
312	Beverage & tobacco product mfg ..	1998.. 14 876 437	4 156 730	3 813 585	6 906 122	14 245 750	3 835 810	3 619 143	6 790 796	1	2	1	1	1997.. 14 188 964	3 838 983	3 634 604	6 715 377	13 303 012	3 542 169	2 990 065	6 770 778	X	X	X	X
3121	Beverage mfg	1998.. 8 249 621	3 400 016	3 508 998	1 340 608	7 605 665	3 046 942	3 282 988	1 275 734	1	2	1	2	1997.. 7 623 147	3 046 440	3 294 121	1 282 586	6 842 152	2 833 581	2 715 859	1 292 712	X	X	X	X
31211	Soft drink & ice mfg	1998.. 1 399 504	723 317	48 967	627 220	1 358 044	684 524	45 702	627 819	2	3	1	2	1997.. 1 369 986	691 884	45 823	632 279	1 304 456	671 626	40 799	592 031	X	X	X	X
312111	Soft drink mfg	1998.. 1 331 193	684 882	47 552	598 758	1 282 005	650 747	44 234	587 024	2	3	1	2	1997.. 1 295 679	659 217	44 446	592 016	1 248 475	638 966	39 283	570 226	X	X	X	X
312112	Bottled water mfg	1998.. 53 890	33 937	909	19 045	62 856	28 366	966	33 524	5	9	8	5	1997.. 61 314	27 420	900	32 994	42 071	26 479	913	14 679	X	X	X	X
312113	Ice mfg	1998.. 14 420	4 498	506	9 416	13 183	5 410	502	7 271	6	18	1	5	1997.. 12 993	5 247	477	7 269	13 910	6 181	7 126	X	X	X	X	
31212	Breweries	1998.. 530 080	66 830	181 605	281 645	535 673	75 175	183 139	277 359	1	1	1	1	1997.. 537 139	76 101	183 945	277 093	590 712	80 484	181 715	328 513	X	X	X	X
312120	Breweries	1998.. 530 080	66 830	181 605	281 645	535 673	75 175	183 139	277 359	1	1	1	1	1997.. 537 139	76 101	183 945	277 093	590 712	80 484	181 715	328 513	X	X	X	X
31213	Wineries	1998.. 4 285 257	1 219 396	2 768 277	297 584	3 791 867	947 173	2 609 594	235 100	2	6	1	6	1997.. 3 772 684	934 817	2 607 160	230 707	3 143 103	856 125	2 055 239	231 739	X	X	X	X
312130	Wineries	1998.. 4 285 257	1 219 396	2 768 277	297 584	3 791 867	947 173	2 609 594	235 100	2	6	1	6	1997.. 3 772 684	934 817	2 607 160	230 707	3 143 103	856 125	2 055 239	231 739	X	X	X	X
31214	Distilleries	1998.. 2 034 780	1 390 473	510 148	134 159	1 920 081	1 340 071	444 553	135 457	1	1	1	2	1997.. 1 943 338	1 343 638	457 193	142 507	1 803 881	1 225 346	438 106	140 429	X	X	X	X
312140	Distilleries	1998.. 2 034 780	1 390 473	510 148	134 159	1 920 081	1 340 071	444 553	135 457	1	1	1	2	1997.. 1 943 338	1 343 638	457 193	142 507	1 803 881	1 225 346	438 106	140 429	X	X	X	X
3122	Tobacco mfg	1998.. 6 626 816	756 714	304 588	5 565 514	6 640 085	788 868	336 155	5 515 062	1	1	1	1	1997.. 6 565 817	792 543	340 483	5 432 791	6 460 860	708 588	274 206	5 478 066	X	X	X	X
31221	Tobacco stemming & redrying	1998.. 566 468	249 715	185 361	131 392	671 263	299 617	205 769	165 877	1	1	1	1	1997.. 786 758	302 522	208 324	275 912	701 065	263 696	137 202	300 167	X	X	X	X
312210	Tobacco stemming & redrying	1998.. 566 468	249 715	185 361	131 392	671 263	299 617	205 769	165 877	1	1	1	1	1997.. 786 758	302 522	208 324	275 912	701 065	263 696	137 202	300 167	X	X	X	X
31222	Tobacco product mfg	1998.. 6 060 348	506 999	119 227	5 434 122	5 968 822	489 251	130 386	5 349 185	1	1	1	1	1997.. 5 779 059	490 021	132 159	5 156 879	5 759 795	444 892	137 004	5 177 899	X	X	X	X
312221	Cigarette mfg	1998.. 5 471 695	367 952	73 320	5 030 423	5 504 339	392 744	91 637	5 019 958	1	1	1	1	1997.. 5 504 339	392 744	91 637	5 019 958	5 502 531	372 439	103 878	5 026 214	X	X	X	X
312229	Other tobacco product mfg	1998.. 588 653	139 047	45 907	403 699	464 483	96 507	38 749	329 227	1	1	1	1	1997.. 274 720	97 277	40 522	136 921	257 264	72 453	33 126	151 685	X	X	X	X
313	Textile mills	1998.. 6 683 285	2 821 317	1 816 357	2 045 611	6 580 960	2 554 411	1 898 130	2 128 419	1	2	1	2	1997.. 6 665 140	2 594 008	1 847 334	2 223 798	6 709 811	2 649 201	1 929 523	2 131 087	X	X	X	X
3131	Fiber, yarn, & thread mills	1998.. 1 079 345	479 836	236 168	363 342	1 039 558	368 253	222 475	448 830	1	2	1	2	1997.. 1 091 166	379 179	241 864	470 123	1 097 457	412 833	266 304	418 320	X	X	X	X
31311	Fiber, yarn, & thread mills	1998.. 1 079 345	479 836	236 168	363 342	1 039 558	368 253	222 475	448 830	1	2	1	2	1997.. 1 091 166	379 179	241 864	470 123	1 097 457	412 833	266 304	418 320	X	X	X	X
313111	Yarn spinning mills	1998.. 683 105	302 256	157 001	223 847	637 507	239 993	146 009	251 505	1	2	2	3	1997.. 687 370	247 194	163 175	277 001	712 131	259 350	191 301	261 480	X	X	X	X
313112	Yarn texturing, throwing, & twisting mills	1998.. 345 100	156 933	62 207	125 959	348 257	106 234	58 026	183 997	2	5	1	2	1997.. 350 768	110 475	60 734	179 559	333 589	133 795	56 927	142 867	X	X	X	X
313113	Thread mills	1998.. 51 141	20 646	16 959	13 536	53 795	22 027	18 441	13 327	1	1	1	1	1997.. 53 028	21 510	17 955	13 563	51 737	19 688	18 076	13 973	X	X	X	X
3132	Fabric mills	1998.. 3 863 722	1 627 426	1 183 593	1 052 703	3 885 489	1 537 147	1 250 032	1 098 310	1	2	1	1	1997.. 3 884 704	1 563 555	1 221 963	1 099 186	3 959 076	1 584 544	1 278 816	1 095 716	X	X	X	X
31321	Broadwoven fabric mills	1998.. 2 435 030	1 019 666	839 015	576 350	2 385 094	942 509	869 420	573 164	1	2	1	1	1997.. 2 379 954	964 470	830 161	585 323	2 512 722	1 010 343	888 137	614 242	X	X	X	X
313210	Broadwoven fabric mills	1998.. 2 435 030	1 019 666	839 015	576 350	2 385 094	942 509	869 420	573 164	1	2	1	1	1997.. 2 379 954	964 470	830 161	585 323	2 512 722	1 010 343	888 137	614 242	X	X	X	X
31322	Narrow fabric mills & schiffli machine embroidery	1998.. 273 342	114 418	67 802	91 121	281 535	113 752	73 669	94 113	4	6	3	4	1997.. 288 909	115 532	76 817	96 560	277 620	111 154	80 481	85 985	X	X	X	X
313221	Narrow fabric mills	1998.. 245 713	101 633	61 467	82 613	251 525	99 652	66 800	85 072	5	6	4	5	1997.. 256 463	101 317	69 331	85 815	243 379	97 514	72 568	73 297	X	X	X	X
313222	Schiffli machine embroidery	1998.. 27 628	12 786	6 335	8 508	30 010	14 100	6 869	9 041	9	18	6	5	1997.. 32 446	14 215	7 486	10 745	34 241	13 640	7 913	12 688	X	X	X	X
31323	Nonwoven fabric mills	1998.. 582 001	306 359	94 584	181 058	611 262	304 244	109 976	197 043	1	2	1	3	1997.. 596 244	309 471	113 595	173 178	568 276	291 595	100 728	175 953	X	X	X	X
313230	Nonwoven fabric mills	1998.. 582 001	306 359	94 584	181 058	611 262	304 244	109 976	197 043	1	2	1	3	1997.. 596 244	309 471	113 595	173 178	568 276	291 595	100 728	175 953	X	X	X	X
31324	Knit fabric mills	1998.. 573 349	186 982	182 192	204 175	607 598	176 641	196 967	233 990	3	8	1	1	1997.. 619 597	174 082	201 390	244 125	600 458	171 452	209 470	219 536	X	X	X	X
313241	Weft knit fabric mills	1998.. 264 204	90 168	73 285	100 751	292 602	77 531	89 699	125 372	6	17	1	3	1997.. 284 340	68 788	88 810	126 742	262 300	70 669	90 465	101 166	X	X	X	X
313249	Other knit fabric & lace mills	1998.. 309 145	96 814	108 907	103 424	314 996	99 111	107 268	108 617	1	1	1	1	1997.. 335 257	105 294	112 580	117 383	338 158	100 783	119 005	118 370	X	X	X	X
3133	Textile & fabric finishing & fabric coating mills	1998.. 1 740 218	714 055	396 596	629 566	1 655 913	649 011	425 622	581 279	4	5	3	5	1997.. 1 689 270	651 274	383 507	654 489	1 653 278	651 824	384 403	617 051	X	X	X	X
31331	Textile & fabric finishing mills	1998.. 1 414 661	577 856	353 172	483 633	1 327 439	500 711	380 057	446 670	4	6	3	7	1997.. 1 339 026	488 838	336 123	514 065	1 299 755	489 614	338 451	471 690	X</			

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—											
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D								
		A	B	C	D	E	F	G	H	A	B	C	D								
315	Apparel mfg—Con.																				
3152	Cut & sew apparel mfg—Con.																				
31523	Women's & girls' cut & sew apparel mfg	1998.. 3 878 764	2 074 064	794 637	1 010 063	3 925 255	2 059 319	803 299	1 062 637	1	1	1	1								
		1997.. 3 567 510	1 732 248	763 789	1 071 473	3 398 916	1 630 608	697 007	1 071 301	X	X	X	X								
315231	Women's & girls' cut/sew lingerie & nightwear mfg ..	1998.. 618 517	322 822	96 434	199 261	636 539	321 703	108 160	206 676	3	4	6	3								
		1997.. 664 564	335 846	108 034	220 684	770 162	418 750	113 431	237 981	X	X	X	X								
315232	Women's & girls' cut & sew blouse & shirt mfg	1998.. 983 642	658 505	161 551	163 586	981 061	611 522	173 056	196 482	1	1	1	3								
		1997.. 568 836	268 558	131 915	168 363	505 535	225 149	111 339	169 047	X	X	X	X								
315233	Women's & girls' cut & sew dress mfg	1998.. 637 402	273 524	153 280	210 598	661 233	275 523	159 978	225 732	1	1	2	2								
		1997.. 625 142	242 075	168 169	214 898	577 605	199 831	147 644	230 130	X	X	X	X								
315234	Women's & girls' cut & sew suit, coat, skirt mfg	1998.. 627 189	308 896	158 315	159 978	655 238	337 950	162 492	154 795	2	2	1	3								
		1997.. 632 789	350 065	115 775	166 949	550 863	284 663	102 139	164 061	X	X	X	X								
315239	Women's & girls' cut & sew other outerwear mfg	1998.. 1 012 014	510 318	225 057	276 640	991 184	512 621	199 612	278 951	1	2	2	3								
		1997.. 1 076 179	535 704	239 896	300 579	994 751	502 215	222 454	270 082	X	X	X	X								
31529	Other cut & sew apparel mfg	1998.. 449 154	295 806	80 923	72 425	441 604	235 863	73 634	132 108	8	22	10	64								
		1997.. 455 272	258 371	72 319	124 582	414 573	223 890	71 175	119 508	X	X	X	X								
315291	Infants' cut & sew apparel mfg	1998.. 141 538	67 357	36 778	37 404	170 829	94 780	38 933	37 116	15	22	4	14								
		1997.. 99 677	37 322	33 350	29 005	97 838	41 681	29 149	27 008	X	X	X	X								
315292	Fur & leather apparel mfg ..	1998.. 36 560	21 255	6 816	8 489	36 220	19 388	7 754	9 077	2	5	7	3								
		1997.. 37 461	20 543	7 908	9 017	38 059	19 644	7 908	10 507	X	X	X	X								
315299	All other cut & sew apparel mfg	1998.. 271 056	207 194	37 330	26 532	234 556	121 695	26 947	85 915	10	30	22	A								
		1997.. 318 134	200 506	31 061	86 567	278 676	162 565	34 118	81 993	X	X	X	X								
3159	Apparel accessories & other apparel mfg	1998.. 752 625	402 941	87 401	262 283	764 322	377 320	95 504	291 497	5	2	4	10								
		1997.. 771 627	387 888	99 696	284 043	761 413	391 685	95 590	274 138	X	X	X	X								
31599	Apparel accessories & other apparel mfg	1998.. 752 625	402 941	87 401	262 283	764 322	377 320	95 504	291 497	5	2	4	10								
		1997.. 771 627	387 888	99 696	284 043	761 413	391 685	95 590	274 138	X	X	X	X								
315991	Hat, cap, & millinery mfg ..	1998.. 194 433	91 228	23 490	79 715	178 228	83 613	24 367	70 247	2	2	1	4								
		1997.. 188 220	87 983	24 973	75 264	198 023	95 592	24 153	78 278	X	X	X	X								
315992	Glove & mitten mfg	1998.. 93 014	76 394	10 951	5 669	141 928	86 704	16 045	39 179	40	8	33	A								
		1997.. 132 362	83 575	15 384	33 403	125 943	81 151	16 865	27 927	X	X	X	X								
315993	Men's & boys' neckwear mfg	1998.. 101 755	63 906	10 501	27 349	91 120	51 652	11 799	27 669	2	1	7	3								
		1997.. 91 176	51 830	11 697	27 649	89 329	49 276	12 173	27 880	X	X	X	X								
315999	Other apparel accessories & other apparel mfg	1998.. 363 422	171 413	42 460	149 550	353 046	155 351	43 293	154 403	2	3	1	2								
		1997.. 359 869	164 500	47 642	147 727	348 118	165 666	42 399	140 053	X	X	X	X								
316	Leather & allied product mfg	1998.. 1 769 616	970 603	286 835	512 179	1 748 360	913 694	313 877	520 789	2	2	3	3								
		1997.. 1 749 213	921 005	314 839	513 369	1 720 061	892 649	327 202	500 210	X	X	X	X								
3161	Leather & hide tanning & finishing	1998.. 394 502	143 517	158 689	92 296	395 267	131 193	171 049	93 025	4	8	3	6								
		1997.. 392 689	129 220	170 368	93 101	411 292	133 701	176 404	101 187	X	X	X	X								
31611	Leather & hide tanning & finishing	1998.. 394 502	143 517	158 689	92 296	395 267	131 193	171 049	93 025	4	8	3	6								
		1997.. 392 689	129 220	170 368	93 101	411 292	133 701	176 404	101 187	X	X	X	X								
316110	Leather & hide tanning & finishing	1998.. 394 502	143 517	158 689	92 296	395 267	131 193	171 049	93 025	4	8	3	6								
		1997.. 392 689	129 220	170 368	93 101	411 292	133 701	176 404	101 187	X	X	X	X								
3162	Footwear mfg	1998.. 805 337	519 314	67 487	218 536	839 294	530 616	78 038	230 640	4	4	8	7								
		1997.. 861 663	539 746	82 567	239 350	818 516	505 086	82 927	230 503	X	X	X	X								
31621	Footwear mfg	1998.. 805 337	519 314	67 487	218 536	839 294	530 616	78 038	230 640	4	4	8	7								
		1997.. 861 663	539 746	82 567	239 350	818 516	505 086	82 927	230 503	X	X	X	X								
316211	Rubber & plastics footwear mfg	1998.. 217 992	151 334	20 118	46 540	214 979	150 126	21 072	43 781	2	1	2	9								
		1997.. 177 316	112 667	20 938	43 711	162 484	105 831	18 996	37 657	X	X	X	X								
316212	House slipper mfg	1998.. 55 345	25 548	3 160	26 637	58 806	32 683	3 445	22 679	1	2	3	1								
		1997.. 65 207	36 525	6 164	25 518	55 172	29 913	5 538	21 721	X	X	X	X								
316213	Men's footwear (except athletic) mfg	1998.. 436 022	296 021	28 059	111 942	438 749	285 870	31 725	121 154	4	3	12	8								
		1997.. 494 724	330 397	33 470	130 857	461 290	301 219	35 120	124 951	X	X	X	X								
316214	Women's footwear (except athletic) mfg	1998.. 47 949	22 075	9 130	16 745	85 207	38 930	16 779	29 498	60	71	41	60								
		1997.. 84 796	38 738	16 933	29 125	94 204	44 278	18 392	31 534	X	X	X	X								
316219	Other footwear mfg	1998.. 48 028	24 337	7 019	16 672	41 553	23 008	5 017	13 529	11	5	27	15								
		1997.. 39 620	21 419	5 062	13 139	45 366	25 845	4 881	14 640	X	X	X	X								
3169	Other leather & allied product mfg	1998.. 569 778	307 771	60 659	201 347	513 799	251 885	64 790	197 124	1	1	4	2								
		1997.. 494 861	252 039	61 904	180 918	490 253	253 862	67 871	168 520	X	X	X	X								
31699	Other leather & allied product mfg	1998.. 569 778	307 771	60 659	201 347	513 799	251 885	64 790	197 124	1	1	4	2								
		1997.. 494 861	252 039	61 904	180 918	490 253	253 862	67 871	168 520	X	X	X	X								
316991	Luggage mfg	1998.. 256 197	159 400	17 730	79 067	217 075	113 430	21 509	82 136	1	1	2	1								
		1997.. 213 590	113 493	20 057	80 040	209 726	106 330	26 092	77 304	X	X	X	X								
316992	Women's handbag & purse mfg	1998.. 69 801	26 241	8 472	35 088	60 079	24 320	7 854	27 905	2	3	6	1								
		1997.. 53 370	28 999	8 312	16 059	61 368	34 892	6 433	20 043	X	X	X	X								
316993	Personal leather good (except women's handbag &																				

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—				
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D	
		A	B	C	D	E	F	G	H	A	B	C	D	
324	Petroleum & coal products mfg—Con.													
3241	Petroleum & coal products mfg—Con.													
32412	Asphalt paving, roofing, & saturated materials mfg	1998.. 651 155	339 425	41 551	270 178	726 643	365 537	50 833	310 273	4	2	20	8	
		1997.. 715 154	360 276	44 994	309 884	712 969	371 326	38 518	303 125	X	X	X	X	
324121	Asphalt paving mixture & block mfg	1998.. 289 691	107 039	33 304	149 347	333 106	109 056	42 050	182 000	9	4	25	14	
		1997.. 334 506	110 858	38 091	185 557	323 241	132 166	32 210	158 865	X	X	X	X	
324122	Asphalt shingle & coating materials mfg	1998.. 361 464	232 386	8 247	120 831	393 537	256 481	8 783	128 273	2	2	6	1	
		1997.. 380 648	249 418	6 903	124 327	389 728	239 160	6 308	144 260	X	X	X	X	
32419	Other petroleum & coal products mfg	1998.. 711 457	328 714	63 069	319 673	780 450	359 781	66 629	354 040	2	2	3	2	
		1997.. 767 436	346 768	68 517	352 151	788 865	374 783	73 747	340 335	X	X	X	X	
324191	Petroleum lubricating oil & grease mfg	1998.. 524 192	266 282	45 760	212 151	578 689	301 754	50 710	226 225	2	2	2	2	
		1997.. 562 831	286 816	52 431	223 584	574 665	314 099	53 139	207 427	X	X	X	X	
324199	All other petroleum & coal products mfg	1998.. 187 265	62 433	17 309	107 523	201 761	58 027	15 919	127 815	3	4	11	6	
		1997.. 204 605	59 952	16 086	128 567	214 200	60 684	20 608	132 908	X	X	X	X	
325	Chemical mfg	1998.. 46 929 222	22 589 702	8 067 394	16 272 126	45 618 575	22 137 791	7 996 349	15 484 436	1	1	1	1	
		1997.. 44 874 763	21 813 123	7 794 688	15 266 952	42 902 908	21 003 454	7 327 032	14 572 422	X	X	X	X	
3251	Basic chemical mfg	1998.. 10 993 467	6 169 081	1 084 936	3 739 449	11 324 569	6 187 938	1 328 572	3 808 058	1	1	1	2	
		1997.. 11 094 070	6 094 346	1 321 750	3 677 974	10 922 966	6 086 119	1 313 730	3 523 117	X	X	X	X	
32511	Petrochemical mfg	1998.. 944 292	479 097	73 002	392 194	1 046 531	490 593	91 827	464 111	1	1	1	1	
		1997.. 1 131 043	598 132	92 143	440 768	1 044 687	529 575	76 882	438 230	X	X	X	X	
325110	Petrochemical mfg	1998.. 944 292	479 097	73 002	392 194	1 046 531	490 593	91 827	464 111	1	1	1	1	
		1997.. 1 131 043	598 132	92 143	440 768	1 044 687	529 575	76 882	438 230	X	X	X	X	
32512	Industrial gas mfg	1998.. 328 063	189 204	34 366	104 494	295 040	171 192	30 947	92 901	2	3	1	1	
		1997.. 298 985	174 311	30 534	94 140	308 822	182 466	34 757	91 599	X	X	X	X	
325120	Industrial gas mfg	1998.. 328 063	189 204	34 366	104 494	295 040	171 192	30 947	92 901	2	3	1	1	
		1997.. 298 985	174 311	30 534	94 140	308 822	182 466	34 757	91 599	X	X	X	X	
32513	Dye & pigment mfg	1998.. 1 095 144	534 728	111 953	448 463	1 032 031	508 669	121 881	401 481	1	1	3	1	
		1997.. 1 011 068	483 216	120 568	407 284	1 093 506	512 280	129 735	451 491	X	X	X	X	
325131	Inorganic dye & pigment mfg	1998.. 597 979	243 950	47 957	306 072	561 573	255 366	51 737	254 470	1	1	1	1	
		1997.. 541 247	234 849	48 134	258 264	574 638	245 443	41 828	287 367	X	X	X	X	
325132	Synthetic organic dye & pigment mfg	1998.. 497 165	290 778	63 996	142 391	470 458	253 303	70 144	147 011	2	2	5	1	
		1997.. 469 821	248 367	72 434	149 020	518 868	266 837	87 907	164 124	X	X	X	X	
32518	Other basic inorganic chemical mfg	1998.. 2 120 423	1 126 943	243 781	749 699	2 041 593	1 081 080	224 650	735 863	2	4	1	3	
		1997.. 1 896 173	919 665	224 080	752 428	1 886 799	931 666	243 741	711 392	X	X	X	X	
325181	Alkalies & chlorine mfg	1998.. 227 820	132 351	2 259	93 210	240 728	145 517	1 562	93 649	1	1	1	1	
		1997.. 240 152	144 957	1 564	93 631	215 749	123 443	1 715	90 591	X	X	X	X	
325182	Carbon black mfg	1998.. 91 347	54 134	—	37 213	87 816	55 745	—	32 071	4	1	X	7	
		1997.. 87 816	55 745	—	32 071	83 376	52 877	440	30 059	X	X	X	X	
325188	All other basic inorganic chemical mfg	1998.. 1 801 256	940 458	241 522	619 276	1 713 049	879 818	223 088	610 143	3	4	2	4	
		1997.. 1 568 205	718 963	222 516	626 726	1 587 674	755 346	241 586	590 742	X	X	X	X	
32519	Other basic organic chemical mfg	1998.. 6 505 545	3 839 110	621 835	2 044 600	6 909 373	3 936 404	859 267	2 113 702	1	1	1	3	
		1997.. 6 756 801	3 919 022	854 425	1 983 354	6 589 152	3 930 132	828 615	1 830 405	X	X	X	X	
325191	Gum & wood chemical mfg	1998.. 156 640	89 539	21 723	45 377	161 762	81 162	28 285	52 315	1	2	1	1	
		1997.. 155 672	84 789	22 996	47 887	146 788	85 915	18 627	42 246	X	X	X	X	
325192	Cyclic crude & intermediate mfg	1998.. 554 031	347 170	34 185	172 676	614 212	383 440	54 145	176 627	1	1	1	1	
		1997.. 617 181	379 985	53 998	183 198	636 136	383 979	50 704	201 453	X	X	X	X	
325193	Ethyl alcohol mfg	1998.. 63 750	40 925	2 546	20 279	76 473	46 478	4 743	25 252	22	18	62	24	
		1997.. 74 916	44 933	4 707	25 276	77 993	45 867	5 102	27 024	X	X	X	X	
325199	All other basic organic chemical mfg	1998.. 5 731 124	3 361 475	563 381	1 806 268	6 056 926	3 425 324	772 094	1 859 508	1	1	1	3	
		1997.. 5 909 032	3 409 315	772 724	1 726 993	5 728 235	3 414 371	754 182	1 559 682	X	X	X	X	
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg	1998.. 6 619 831	4 110 590	756 649	1 752 592	6 773 670	4 167 942	774 011	1 831 716	1	1	1	1	
		1997.. 6 700 630	4 111 912	755 098	1 833 620	6 388 278	3 914 950	715 875	1 757 453	X	X	X	X	
32521	Resin & synthetic rubber mfg	1998.. 5 116 132	3 278 994	487 038	1 350 099	5 280 851	3 381 565	518 656	1 380 629	1	1	1	1	
		1997.. 5 218 313	3 331 359	502 365	1 384 589	4 978 318	3 176 878	491 480	1 309 960	X	X	X	X	
325211	Plastics material & resin mfg	1998.. 4 362 123	2 798 870	393 618	1 169 635	4 490 837	2 853 074	447 220	1 190 542	1	1	1	1	
		1997.. 4 370 715	2 773 047	427 447	1 170 221	4 146 587	2 642 232	407 487	1 096 868	X	X	X	X	
325212	Synthetic rubber mfg	1998.. 754 009	480 124	93 420	180 464	790 014	528 491	71 436	190 087	1	1	1	1	
		1997.. 847 598	558 312	74 918	214 368	831 731	534 646	83 993	213 092	X	X	X	X	
32522	Artificial & synthetic fibers & filaments mfg	1998.. 1 503 699	831 595	269 611	402 493	1 492 819	786 377	255 355	451 087	1	1	2	1	
		1997.. 1 482 317	780 553	252 733	449 031	1 409 960	738 072	224 395	447 493	X	X	X	X	
325221	Cellulosic organic fiber mfg	1998.. 123 378	69 521	9 888	43 969	134 339	63 997	16 469	53 873	1	1	1	1	
		1997.. 138 502	66 674	16 571	55 257	135 582	61 028	14 458	60 096	X	X	X	X	
325222	Noncellulosic organic fiber mfg	1998.. 1 380 321	762 074	259 723	358 524	1 358 480	722 380	238 886	397 214	1	1	2	1	
		1997.. 1 343 815	713 879	236 162	393 774	1 274 378	677 044	209 937	387 397	X	X	X	X	
3253	Pesticide, fertilizer, & other agricultural chemical mfg	1998.. 2 717 600	1 169 788	467 409	1 080 403	2 749 028	1 271 471	403 857	1 073 700	1	2	1	1	
		1997.. 2 721 446	1 264 833	396 677	1 059 936	2 469 182	1 145 477	314 228	1 009 477	X	X	X	X	
32531	Fertilizer mfg	1998.. 1 399 590	645 577	132 222	621 791	1 436 075	717 516	127 057	591 503	1	4	1	2	
		1997.. 1 413 366	706 212	127 552	579 602	1 324 526	643 721	106 038	574 767	X	X	X	X	
325311	Nitrogenous fertilizer mfg	1998.. 397 852	185 233	5 166	207 452	421 220	213 350	6 920	200 950	1	7	1	4	
		1997.. 388 875	189 162	6 659	193 054	349 521	164 686	5 881	178 954	X	X	X	X	
325312	Phosphatic fertilizer mfg	1998.. 457 419	133 829	81 372	242 217	498 550	190 799	76 385	231 366	3	16	2	3	
		1997.. 522 628	209 336	76 333	236 959	474 476	178 377	68 062	228 037	X	X	X	X	
325314	Fertilizer (mixing only) mfg	1998.. 544 319	326 514	45 683	172 122	516 305	313 367	43 752	159 187	2	2	1	5	
		1997.. 501 863	307 714	44 560	149 589	500 529	300 658	32 095	167 776	X	X	X	X	

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—										
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D							
		A	B	C	D	E	F	G	H	A	B	C	D							
325	Chemical mfg—Con.																			
3253	Pesticide, fertilizer, & other agricultural chemical mfg—Con.																			
32532	Pesticide & other agricultural chemical mfg	1998.. 1 318 010	524 211	335 187	458 612	1 312 952	553 955	276 800	482 197	1	1	1	1							
		1997.. 1 308 080	558 621	269 125	480 334	1 144 656	501 756	208 190	434 710	X	X	X	X							
325320	Pesticide & other agricultural chemical mfg ..	1998.. 1 318 010	524 211	335 187	458 612	1 312 952	553 955	276 800	482 197	1	1	1	1							
		1997.. 1 308 080	558 621	269 125	480 334	1 144 656	501 756	208 190	434 710	X	X	X	X							
3254	Pharmaceutical & medicine mfg	1998.. 13 844 366	4 826 851	4 326 018	4 691 498	12 735 953	4 618 386	4 056 822	4 060 744	1	2	1	3							
		1997.. 12 387 604	4 571 441	3 885 088	3 931 075	11 411 221	4 201 622	3 460 136	3 749 463	X	X	X	X							
32541	Pharmaceutical & medicine mfg	1998.. 13 844 366	4 826 851	4 326 018	4 691 498	12 735 953	4 618 386	4 056 822	4 060 744	1	2	1	3							
		1997.. 12 387 604	4 571 441	3 885 088	3 931 075	11 411 221	4 201 622	3 460 136	3 749 463	X	X	X	X							
325411	Medicinal & botanical mfg ..	1998.. 2 177 294	677 248	568 894	931 152	1 905 883	631 962	628 958	644 963	2	1	1	3							
		1997.. 1 878 773	624 640	613 198	640 935	1 812 321	619 964	620 332	572 025	X	X	X	X							
325412	Pharmaceutical preparation mfg	1998.. 8 868 666	3 183 324	2 625 137	3 060 206	7 941 525	2 958 081	2 319 023	2 664 421	1	3	1	4							
		1997.. 7 735 965	2 907 830	2 243 789	2 584 346	7 007 299	2 662 184	1 880 788	2 464 327	X	X	X	X							
325413	In-vitro diagnostic substance mfg	1998.. 1 284 869	488 469	386 635	409 764	1 477 173	598 381	417 812	460 980	3	4	2	4							
		1997.. 1 443 534	572 687	417 082	453 765	1 428 146	570 092	407 903	450 151	X	X	X	X							
325414	Biological product (except diagnostic) mfg	1998.. 1 513 537	477 809	745 352	290 376	1 411 372	429 963	691 029	290 380	2	4	1	1							
		1997.. 1 329 332	466 284	611 019	252 029	1 163 455	349 382	551 113	262 960	X	X	X	X							
3255	Paint, coating, & adhesive mfg ..	1998.. 2 885 189	1 560 114	158 526	1 166 550	2 862 375	1 566 179	153 799	1 142 397	2	4	4	1							
		1997.. 2 848 644	1 524 902	156 833	1 166 909	2 689 555	1 467 025	167 183	1 055 347	X	X	X	X							
32551	Paint & coating mfg	1998.. 2 178 014	1 213 958	100 326	863 730	2 159 390	1 230 203	92 986	836 201	3	5	6	2							
		1997.. 2 161 007	1 206 835	95 992	858 680	2 027 564	1 155 975	108 460	763 129	X	X	X	X							
325510	Paint & coating mfg	1998.. 2 178 014	1 213 958	100 326	863 730	2 159 390	1 230 203	92 986	836 201	3	5	6	2							
		1997.. 2 161 007	1 206 835	95 992	858 680	2 027 564	1 155 975	108 460	763 129	X	X	X	X							
32552	Adhesive mfg	1998.. 707 175	346 156	58 199	302 819	702 985	335 977	60 813	306 196	1	1	3	2							
		1997.. 687 637	318 067	61 341	308 229	661 991	311 050	58 723	292 218	X	X	X	X							
325520	Adhesive mfg	1998.. 707 175	346 156	58 199	302 819	702 985	335 977	60 813	306 196	1	1	3	2							
		1997.. 687 637	318 067	61 341	308 229	661 991	311 050	58 723	292 218	X	X	X	X							
3256	Soap, cleaning compound, & toilet preparation mfg	1998.. 5 441 798	2 820 330	344 080	2 277 389	4 834 625	2 511 190	334 646	1 988 790	5	5	1	7							
		1997.. 4 844 593	2 485 798	343 650	2 015 145	4 672 434	2 364 483	370 643	1 937 308	X	X	X	X							
32561	Soap & cleaning compound mfg	1998.. 2 307 837	1 265 493	153 551	888 793	2 274 459	1 266 622	158 856	848 981	1	1	2	1							
		1997.. 2 321 488	1 277 625	162 811	881 092	2 282 830	1 237 622	191 528	853 540	X	X	X	X							
325611	Soap & other detergent mfg	1998.. 1 140 528	596 095	68 389	476 045	1 208 199	654 270	76 233	477 696	1	2	3	1							
		1997.. 1 239 995	678 644	77 305	484 046	1 180 281	620 854	92 184	467 243	X	X	X	X							
325612	Polish & other sanitation good mfg	1998.. 673 196	379 326	29 622	264 249	549 977	302 106	31 452	216 418	2	2	9	2							
		1997.. 554 751	286 623	32 184	235 944	574 136	308 950	39 440	225 746	X	X	X	X							
325613	Surface active agent mfg ..	1998.. 494 112	290 072	55 540	148 500	516 283	310 246	51 171	154 866	1	2	1	2							
		1997.. 526 742	312 358	53 322	161 062	528 413	307 958	59 904	160 551	X	X	X	X							
32562	Toilet preparation mfg	1998.. 3 133 962	1 554 837	190 529	1 388 596	2 560 166	1 244 567	175 790	1 139 808	9	8	2	12							
		1997.. 2 523 105	1 208 173	180 839	1 134 093	2 389 604	1 126 721	179 115	1 083 768	X	X	X	X							
325620	Toilet preparation mfg	1998.. 3 133 962	1 554 837	190 529	1 388 596	2 560 166	1 244 567	175 790	1 139 808	9	8	2	12							
		1997.. 2 523 105	1 208 173	180 839	1 134 093	2 389 604	1 126 721	179 115	1 083 768	X	X	X	X							
3259	Other chemical product mfg	1998.. 4 426 971	1 932 950	929 776	1 564 246	4 938 356	1 814 683	944 641	1 579 032	1	2	1	1							
		1997.. 4 277 776	1 759 891	935 592	1 582 293	4 349 272	1 823 778	985 237	1 540 257	X	X	X	X							
32591	Printing ink mfg	1998.. 526 780	309 657	39 415	177 708	471 139	260 273	35 962	174 903	5	9	2	5							
		1997.. 439 783	249 842	35 915	154 026	445 089	238 989	18 140	187 960	X	X	X	X							
325910	Printing ink mfg	1998.. 526 780	309 657	39 415	177 708	471 139	260 273	35 962	174 903	5	9	2	5							
		1997.. 439 783	249 842	35 915	154 026	445 089	238 989	18 140	187 960	X	X	X	X							
32592	Explosives mfg	1998.. 152 405	45 779	42 265	64 361	157 226	46 132	47 577	63 516	4	15	3	1							
		1997.. 164 460	46 718	51 925	65 817	163 679	51 232	55 490	56 957	X	X	X	X							
325920	Explosives mfg	1998.. 152 405	45 779	42 265	64 361	157 226	46 132	47 577	63 516	4	15	3	1							
		1997.. 164 460	46 718	51 925	65 817	163 679	51 232	55 490	56 957	X	X	X	X							
32599	All other chemical product & preparation mfg	1998.. 3 747 786	1 577 513	848 096	1 322 177	3 709 991	1 508 278	861 102	1 340 612	1	1	1	1							
		1997.. 3 673 533	1 463 331	847 752	1 362 450	3 740 504	1 533 557	911 607	1 295 340	X	X	X	X							
325991	Custom compounding of purchased resin	1998.. 812 219	411 657	30 263	370 299	777 171	381 211	34 332	361 627	1	1	3	1							
		1997.. 774 960	364 556	33 890	376 514	734 552	358 502	31 403	344 647	X	X	X	X							
325992	Photographic film, paper, plate, & chemical mfg	1998.. 1 405 457	365 323	624 670	415 464	1 460 501	364 538	655 425	440 538	1	1	1	1							
		1997.. 1 471 023	353 148	653 142	464 733	1 614 944	474 447	704 138	436 359	X	X	X	X							
325998	All other miscellaneous chemical product & preparation mfg	1998.. 1 530 110	800 533	193 163	536 414	1 472 320	762 528	171 345	538 447	1	1	2	2							
		1997.. 1 427 550	745 627	160 720	521 203	1 391 008	700 608	176 066	514 334	X	X	X	X							
326	Plastics & rubber products mfg	1998.. 15 857 139	7 359 646	2 219 282	6 278 211	15 808 493	7 198 122	2 199 923	6 410 448	1	1	1	1							
		1997.. 16 097 346	7 330 965	2 201 738	6 564 643	15 697 621	7 231 836	2 121 961	6 343 824	X	X	X	X							
3261	Plastics product mfg	1998.. 12 762 930	5 929 782	1 712 124	5 121 024	12 773 577	5 783 534	1 692 953	5 297 090	1	1	1	1							
		1																		

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—			
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D
		A	B	C	D	E	F	G	H	A	B	C	D
326	Plastics & rubber products mfg—Con.												
3261	Plastics product mfg—Con.												
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg	1 154 812	678 756	91 306	384 750	1 229 812	720 529	89 420	419 862	2	2	2	3
	1997..	1 235 629	695 490	100 832	439 307	1 154 891	662 337	89 670	402 884	X	X	X	X
326121	Unsupported plastics profile shape mfg	477 753	240 225	54 610	182 918	450 466	211 492	55 980	182 994	2	3	2	3
	1997..	450 399	199 114	60 715	190 570	468 510	213 786	59 290	195 434	X	X	X	X
326122	Plastics pipe & pipe fitting mfg	677 059	438 531	36 696	201 832	779 345	509 037	33 441	236 867	2	3	4	6
	1997..	785 230	496 376	40 117	248 737	686 381	448 551	30 380	207 450	X	X	X	X
32613	Laminated plastics plate, sheet, & shape mfg	334 881	124 932	57 120	152 829	339 155	128 979	61 028	149 148	1	2	5	1
	1997..	382 815	152 124	61 319	169 372	374 258	155 341	59 546	159 371	X	X	X	X
326130	Laminated plastics plate, sheet, & shape mfg	334 881	124 932	57 120	152 829	339 155	128 979	61 028	149 148	1	2	5	1
	1997..	382 815	152 124	61 319	169 372	374 258	155 341	59 546	159 371	X	X	X	X
32614	Polystyrene foam product mfg	476 250	244 937	51 712	179 601	461 919	207 824	47 752	206 343	1	1	3	2
	1997..	465 554	218 149	50 050	197 355	469 334	230 276	42 838	196 220	X	X	X	X
326140	Polystyrene foam product mfg	476 250	244 937	51 712	179 601	461 919	207 824	47 752	206 343	1	1	3	2
	1997..	465 554	218 149	50 050	197 355	469 334	230 276	42 838	196 220	X	X	X	X
32615	Urethane & other foam product (except polystyrene) mfg	487 449	156 384	70 089	260 977	491 134	150 049	69 558	271 528	1	2	2	3
	1997..	494 863	150 493	70 990	273 380	465 440	140 055	62 972	262 413	X	X	X	X
326150	Urethane & other foam product (except polystyrene) mfg	487 449	156 384	70 089	260 977	491 134	150 049	69 558	271 528	1	2	2	3
	1997..	494 863	150 493	70 990	273 380	465 440	140 055	62 972	262 413	X	X	X	X
32616	Plastics bottle mfg	603 210	297 994	64 659	240 558	568 959	278 893	70 463	219 603	2	2	2	4
	1997..	575 619	282 267	68 290	225 062	532 866	273 031	49 278	210 557	X	X	X	X
326160	Plastics bottle mfg	603 210	297 994	64 659	240 558	568 959	278 893	70 463	219 603	2	2	2	4
	1997..	575 619	282 267	68 290	225 062	532 866	273 031	49 278	210 557	X	X	X	X
32619	Other plastics product mfg	7 115 154	3 292 145	953 713	2 869 296	7 092 971	3 184 989	952 901	2 955 080	1	1	1	1
	1997..	7 178 573	3 234 391	935 318	3 008 864	6 977 213	3 142 899	909 981	2 924 333	X	X	X	X
326191	Plastics plumbing fixture mfg	175 528	74 342	14 848	86 337	162 699	65 434	13 949	83 315	2	2	13	1
	1997..	160 174	65 319	13 269	81 586	162 170	65 615	17 599	78 956	X	X	X	X
326192	Resilient floor covering mfg	242 859	184 957	15 629	42 273	263 014	197 916	18 241	46 857	1	1	1	1
	1997..	250 891	189 490	17 803	43 598	252 444	167 987	18 315	66 142	X	X	X	X
326199	All other plastics product mfg	6 696 767	3 032 846	923 235	2 740 686	6 667 258	2 921 639	920 711	2 824 905	1	1	1	1
	1997..	6 767 508	2 979 582	904 246	2 883 680	6 562 599	2 909 297	874 067	2 779 239	X	X	X	X
3262	Rubber product mfg	3 094 209	1 429 864	507 158	1 157 187	3 034 915	1 414 588	506 969	1 113 358	1	1	2	1
	1997..	3 059 399	1 434 741	510 511	1 114 147	3 098 191	1 481 332	523 012	1 093 847	X	X	X	X
32621	Tire mfg	1 188 547	609 554	147 614	431 379	1 171 303	611 928	150 315	409 060	1	1	1	1
	1997..	1 166 251	607 526	147 311	411 414	1 196 281	639 593	142 888	413 800	X	X	X	X
326211	Tire mfg (except retreading)	1 079 623	548 976	140 339	390 308	1 062 081	552 197	141 093	368 791	1	1	1	1
	1997..	1 057 875	548 692	140 806	368 377	1 087 290	579 637	134 101	373 552	X	X	X	X
326212	Tire retreading	108 924	60 578	7 275	41 071	109 222	59 731	9 222	40 268	3	3	10	6
	1997..	108 376	58 834	6 505	43 037	108 991	59 556	8 787	40 248	X	X	X	X
32622	Rubber & plastics hoses & belting mfg	495 398	283 439	75 527	136 432	495 724	278 459	82 596	134 670	2	3	3	4
	1997..	522 042	305 297	89 600	127 145	563 650	334 360	100 573	128 717	X	X	X	X
326220	Rubber & plastics hoses & belting mfg	495 398	283 439	75 527	136 432	495 724	278 459	82 596	134 670	2	3	3	4
	1997..	522 042	305 297	89 600	127 145	563 650	334 360	100 573	128 717	X	X	X	X
32629	Other rubber product mfg	1 410 264	536 871	284 017	589 376	1 367 888	524 201	274 058	569 628	1	3	3	2
	1997..	1 371 106	521 918	273 600	575 588	1 338 260	507 379	279 551	551 330	X	X	X	X
326291	Rubber product mfg for mechanical use	550 008	210 244	120 466	219 298	527 961	200 879	114 788	212 294	2	3	8	4
	1997..	521 277	200 064	111 560	209 653	486 924	176 852	109 358	200 714	X	X	X	X
326299	All other rubber product mfg	860 256	326 627	163 551	370 078	839 927	323 322	159 270	357 334	1	4	2	2
	1997..	849 829	321 854	162 040	365 935	851 336	330 527	170 193	350 616	X	X	X	X
327	Nonmetallic mineral product mfg ..	9 172 780	4 585 681	1 220 526	3 366 572	8 958 775	4 511 185	1 197 122	3 250 468	1	1	1	1
	1997..	8 887 159	4 483 470	1 194 067	3 209 622	8 679 135	4 459 096	1 181 637	3 038 402	X	X	X	X
3271	Clay product & refractory mfg ..	1 501 409	834 246	237 512	429 651	1 490 475	832 787	247 080	410 608	1	2	2	2
	1997..	1 489 463	837 426	243 889	408 148	1 468 465	846 001	231 085	391 379	X	X	X	X
32711	Pottery, ceramics, & plumbing fixture mfg	606 280	287 968	152 790	165 522	587 513	279 267	158 268	149 978	1	2	2	5
	1997..	571 789	275 894	152 349	143 546	550 982	271 130	142 072	137 780	X	X	X	X
327111	Vitreous china plumbing fixture & bathroom accessories mfg	103 746	58 782	20 015	24 949	99 517	56 638	22 687	20 192	1	1	1	1
	1997..	102 233	58 689	23 317	20 227	118 130	71 506	25 743	20 881	X	X	X	X
327112	Vitreous china, fine earthenware, & other pottery product mfg	315 778	169 882	77 089	68 807	320 890	164 676	83 274	72 940	1	1	1	1
	1997..	310 122	162 057	79 053	69 012	278 404	144 724	68 589	65 091	X	X	X	X
327113	Porcelain electrical supply mfg	186 756	59 303	55 686	71 766	167 106	57 953	52 307	56 846	4	8	6	11
	1997..	159 434	55 148	49 979	54 307	154 448	54 900	47 740	51 808	X	X	X	X
32712	Clay building material & refractories mfg	895 129	546 278	84 722	264 128	902 962	553 519	88 813	260 630	2	3	1	2
	1997..	917 674	561 532	91 540	264 602	917 483	574 871	89 013	253 599	X	X	X	X
327121	Brick & structural clay tile mfg	261 082	196 207	10 600	54 274	268 894	207 793	10 255	50 846	2	2	4	3
	1997..	269 943	208 516	10 335	51 092	269 602	211 312	9 707	48 583	X	X	X	X
327122	Ceramic wall & floor tile mfg	192 802	146 884	10 379	35 539	183 772	132 936	12 017	38 818	6	12	6	13
	1997..	188 032	135 250	11 672	41 110	177 870	127 749	15 746	34 375	X	X	X	X

See footnotes at end of table.

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—				
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D	
		A	B	C	D	E	F	G	H	A	B	C	D	
327	Nonmetallic mineral product mfg —Con.													
3271	Clay product & refractory mfg—Con.													
32712	Clay building material & refractories mfg—Con.													
327123	Other structural clay product mfg	1998.. 22 926	17 246	1 679	4 001	21 736	16 513	1 359	3 864	1	1	1	1	
		1997.. 21 685	16 550	1 513	3 622	24 827	17 920	1 807	5 100	X	X	X	X	
327124	Clay refractory mfg	1998.. 160 242	66 036	23 557	70 648	172 815	73 037	27 057	72 721	3	5	3	3	
		1997.. 171 621	72 588	27 398	71 635	165 474	79 194	19 836	66 444	X	X	X	X	
327125	Nonclay refractory mfg	1998.. 258 077	119 905	38 506	99 666	255 745	123 240	38 124	94 381	1	1	1	2	
		1997.. 266 393	128 628	40 622	97 143	279 710	138 696	41 917	99 097	X	X	X	X	
3272	Glass & glass product mfg	1998.. 2 801 617	1 683 760	322 040	795 817	2 710 020	1 584 360	346 849	778 811	1	1	1	3	
		1997.. 2 728 116	1 592 021	353 457	782 638	2 638 486	1 570 220	318 337	749 929	X	X	X	X	
32721	Glass & glass product mfg ...	1998.. 2 801 617	1 683 760	322 040	795 817	2 710 020	1 584 360	346 849	778 811	1	1	1	3	
		1997.. 2 728 116	1 592 021	353 457	782 638	2 638 486	1 570 220	318 337	749 929	X	X	X	X	
327211	Flat glass mfg	1998.. 283 552	194 177	32 564	56 810	299 831	201 400	40 829	57 602	1	1	1	1	
		1997.. 299 831	201 400	40 829	57 602	283 963	181 148	41 078	61 737	X	X	X	X	
327212	Other pressed & blown glass & glassware mfg	1998.. 970 381	612 510	104 893	252 979	889 952	554 501	110 894	224 557	2	2	1	5	
		1997.. 892 132	556 223	112 127	223 782	824 221	516 116	95 998	212 107	X	X	X	X	
327213	Glass container mfg	1998.. 674 517	555 799	1 915	116 803	622 189	501 654	1 927	118 608	1	1	1	1	
		1997.. 622 189	501 654	1 927	118 608	677 460	553 013	1 581	122 866	X	X	X	X	
327215	Glass product mfg made of purchased glass	1998.. 873 167	321 274	182 669	369 224	898 047	326 805	193 199	378 043	2	1	2	5	
		1997.. 913 964	332 744	198 574	382 646	852 842	319 943	179 680	353 219	X	X	X	X	
3273	Cement & concrete product mfg	1998.. 2 844 295	1 298 434	287 506	1 258 356	2 757 936	1 295 726	223 157	1 259 053	2	3	3	2	
		1997.. 2 684 762	1 284 043	211 520	1 189 199	2 605 108	1 241 812	240 588	1 122 708	X	X	X	X	
32731	Cement mfg	1998.. 859 157	190 140	129 874	539 143	844 213	212 568	106 043	525 603	3	6	4	2	
		1997.. 832 693	215 045	105 076	512 572	846 260	220 363	133 237	492 660	X	X	X	X	
327310	Cement mfg	1998.. 859 157	190 140	129 874	539 143	844 213	212 568	106 043	525 603	3	6	4	2	
		1997.. 832 693	215 045	105 076	512 572	846 260	220 363	133 237	492 660	X	X	X	X	
32732	Ready-mix concrete mfg	1998.. 650 382	188 680	27 507	434 194	659 755	197 466	19 052	443 237	4	10	2	3	
		1997.. 587 316	163 083	17 405	406 828	570 014	180 305	20 939	368 770	X	X	X	X	
327320	Ready-mix concrete mfg ...	1998.. 650 382	188 680	27 507	434 194	659 755	197 466	19 052	443 237	4	10	2	3	
		1997.. 587 316	163 083	17 405	406 828	570 014	180 305	20 939	368 770	X	X	X	X	
32733	Concrete pipe, brick, & block mfg	1998.. 689 176	516 618	57 364	115 194	647 816	519 432	23 325	105 058	4	5	2	6	
		1997.. 652 114	521 540	23 721	106 853	606 902	481 970	26 307	98 625	X	X	X	X	
327331	Concrete block & brick mfg	1998.. 383 122	309 538	13 697	59 887	347 120	286 982	8 904	51 233	5	6	3	6	
		1997.. 349 845	288 005	9 320	52 520	321 457	264 530	5 483	51 444	X	X	X	X	
327332	Concrete pipe mfg	1998.. 306 054	207 080	43 667	55 307	300 696	232 450	14 421	53 825	6	8	3	11	
		1997.. 302 269	233 535	14 401	54 333	285 445	217 440	20 824	47 181	X	X	X	X	
32739	Other concrete product mfg ...	1998.. 645 580	402 995	72 761	169 825	606 152	366 260	74 737	165 155	2	3	6	2	
		1997.. 612 639	384 375	65 318	162 946	581 932	359 174	60 105	162 653	X	X	X	X	
327390	Other concrete product mfg	1998.. 645 580	402 995	72 761	169 825	606 152	366 260	74 737	165 155	2	3	6	2	
		1997.. 612 639	384 375	65 318	162 946	581 932	359 174	60 105	162 653	X	X	X	X	
3274	Lime & gypsum product mfg	1998.. 372 086	66 404	24 492	281 191	375 421	88 454	23 297	263 671	4	23	5	1	
		1997.. 367 367	86 955	23 371	257 041	356 494	92 268	25 612	238 614	X	X	X	X	
32741	Lime mfg	1998.. 147 805	19 309	14 735	113 761	143 828	18 725	13 112	111 992	1	10	8	2	
		1997.. 135 382	15 155	12 948	107 279	126 690	18 741	14 426	93 523	X	X	X	X	
327410	Lime mfg	1998.. 147 805	19 309	14 735	113 761	143 828	18 725	13 112	111 992	1	10	8	2	
		1997.. 135 382	15 155	12 948	107 279	126 690	18 741	14 426	93 523	X	X	X	X	
32742	Gypsum product mfg	1998.. 224 281	47 095	9 756	167 430	231 593	69 729	10 185	151 679	7	32	6	2	
		1997.. 231 985	71 800	10 423	149 762	229 804	73 527	11 186	145 091	X	X	X	X	
327420	Gypsum product mfg	1998.. 224 281	47 095	9 756	167 430	231 593	69 729	10 185	151 679	7	32	6	2	
		1997.. 231 985	71 800	10 423	149 762	229 804	73 527	11 186	145 091	X	X	X	X	
3279	Other nonmetallic mineral product mfg	1998.. 1 653 372	702 837	348 977	601 559	1 624 923	709 859	356 740	558 325	2	3	3	2	
		1997.. 1 617 451	683 025	361 830	572 596	1 610 582	708 795	366 015	535 772	X	X	X	X	
32791	Abrasive product mfg	1998.. 667 208	226 032	224 871	216 305	701 784	252 900	239 786	209 098	3	5	4	3	
		1997.. 706 617	252 314	244 217	210 086	718 809	262 571	254 967	201 271	X	X	X	X	
327910	Abrasive product mfg	1998.. 667 208	226 032	224 871	216 305	701 784	252 900	239 786	209 098	3	5	4	3	
		1997.. 706 617	252 314	244 217	210 086	718 809	262 571	254 967	201 271	X	X	X	X	
32799	All other nonmetallic mineral product mfg	1998.. 986 165	476 805	124 106	385 253	923 138	456 958	116 953	349 227	2	3	4	3	
		1997.. 910 834	430 711	117 613	362 510	891 773	446 224	111 048	334 501	X	X	X	X	
327991	Cut stone & stone product mfg	1998.. 167 519	90 065	33 790	43 664	151 004	82 633	27 181	41 190	7	11	12	10	
		1997.. 153 405	78 012	30 458	44 935	151 335	85 030	26 243	40 062	X	X	X	X	
327992	Ground or treated mineral & earth mfg	1998.. 274 373	101 494	34 622	138 258	249 395	94 806	34 031	120 558	6	12	3	5	
		1997.. 264 912	93 771	40 359	130 782	257 567	87 527	38 196	131 844	X	X	X	X	
327993	Mineral wool mfg	1998.. 347 794	196 020	25 702	126 072	338 443	195 377	22 565	120 500	1	1	5	2	
		1997.. 323 673	184 853	22 951	115 869	327 514	201 793	23 566	102 155	X	X	X	X	
327999	All other miscellaneous nonmetallic mineral product mfg	1998.. 196 478	89 227	29 992	77 260	184 296	84 142	33 175	66 979	2	3	3	6	
		1997.. 168 844	74 075	23 845	70 924	155 357	71 874	23 043	60 440	X	X	X	X	
331	Primary metal mfg	1998.. 22 509 656	7 148 322	7 480 711	7 880 623	22 811 507	6 948 665	8 052 737	7 810 104	1	1	1	1	
		1997.. 22 802 587	6 946 378	8 076 733	7 779 476	22 340 592	6 734 963	8 242 036	7 363 593	X	X	X	X	
3311	Iron & steel mills & ferroalloy mfg	1998.. 9 451 268	3 406 054	2 867 813	3 177 400	9 489 316	3 198 234	3 143 052	3 148 030	1	1	1	1	
		1997.. 9 460 870	3 197 495	3 146 829	3 116 546	9 205 105	3 084 010	3 043 746	3 077 349	X	X	X	X	
33111	Iron & steel mills & ferroalloy mfg	1998.. 9 451 268	3 406 054	2 867 813	3 177 400	9 489 316	3 198 234	3 143 052	3 148 030	1	1	1	1	
		1997.. 9 460 870	3 197 495	3 146 829	3 116 546	9 205 105	3 084 010	3 043 746	3 077 349	X	X	X	X	
331111	Iron & steel mills	1998.. 9 190 632	3 307 339	2 802 692	3 080 600	9 227 940	3 099 684	3 078 550	3 049 706	1	1	1	1	
		1997.. 9 199 605	3 099 004	3 082 347	3 018 254	8 978 305	2 998 534	2 990 762	2 989 009	X	X	X	X	
331112	Electrometallurgical ferroalloy product mfg	1998.. 260 636	98 715	65 121	96 800									

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NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—			
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D
		A	B	C	D	E	F	G	H	A	B	C	D
331	Primary metal mfg—Con.												
3312	Steel product mfg from purchased steel	1998.. 3 151 759	1 019 859	834 277	1 297 623	3 109 880	1 027 243	867 958	1 214 679	1	2	1	1
		1997.. 3 096 020	1 031 508	862 033	1 202 479	2 968 877	981 403	849 362	1 138 112	X	X	X	X
33121	Iron & steel pipes & tubes mfg from purchased steel ...	1998.. 1 298 363	449 477	235 484	613 402	1 217 236	436 207	254 838	526 192	1	1	1	2
		1997.. 1 218 853	445 807	252 633	520 413	1 166 325	434 982	228 637	502 706	X	X	X	X
331210	Iron & steel pipes & tubes mfg from purchased steel	1998.. 1 298 363	449 477	235 484	613 402	1 217 236	436 207	254 838	526 192	1	1	1	2
		1997.. 1 218 853	445 807	252 633	520 413	1 166 325	434 982	228 637	502 706	X	X	X	X
33122	Rolling & drawing of purchased steel	1998.. 1 853 396	570 382	598 793	684 221	1 892 644	591 037	613 120	688 487	1	3	1	2
		1997.. 1 877 167	585 701	609 400	682 066	1 802 552	546 421	620 725	635 406	X	X	X	X
331221	Cold-rolled steel shape mfg	1998.. 1 195 615	335 859	475 740	384 015	1 186 359	333 290	486 252	366 817	1	2	1	3
		1997.. 1 174 282	331 912	484 421	357 949	1 164 207	304 685	493 163	366 359	X	X	X	X
331222	Steel wire drawing	1998.. 657 781	234 523	123 053	300 206	706 285	257 747	126 868	321 670	3	6	3	3
		1997.. 702 885	253 789	124 979	324 117	638 345	241 736	127 562	269 047	X	X	X	X
3313	Alumina & aluminum production & processing	1998.. 3 492 146	840 470	1 201 910	1 449 766	3 667 962	874 452	1 305 541	1 487 970	1	1	1	1
		1997.. 3 695 527	867 846	1 328 961	1 498 720	3 707 328	826 052	1 562 208	1 319 068	X	X	X	X
33131	Alumina & aluminum production & processing	1998.. 3 492 146	840 470	1 201 910	1 449 766	3 667 962	874 452	1 305 541	1 487 970	1	1	1	1
		1997.. 3 695 527	867 846	1 328 961	1 498 720	3 707 328	826 052	1 562 208	1 319 068	X	X	X	X
331311	Alumina refining	1998.. 177 120	37 665	56 248	83 207	197 159	38 868	55 424	102 867	1	1	1	1
		1997.. 185 706	26 872	55 102	103 732	210 551	24 393	130 718	55 440	X	X	X	X
331312	Primary aluminum production	1998.. 657 419	124 099	104 445	428 875	683 363	127 288	100 791	455 284	1	1	1	1
		1997.. 677 119	126 579	95 502	455 038	721 611	97 227	209 642	414 742	X	X	X	X
331314	Secondary smelting & alloying of aluminum	1998.. 300 726	129 139	30 610	140 977	290 603	122 650	26 576	141 377	2	3	7	1
		1997.. 291 856	124 030	26 356	141 470	257 216	106 825	42 150	108 241	X	X	X	X
331315	Aluminum sheet, plate, & foil mfg	1998.. 1 663 617	365 364	784 982	513 272	1 726 873	360 406	890 015	476 452	1	1	1	1
		1997.. 1 787 684	375 009	927 428	485 247	1 841 005	418 722	969 752	452 531	X	X	X	X
331316	Aluminum extruded product mfg	1998.. 529 771	128 310	181 270	220 192	608 318	157 271	199 716	251 331	2	4	3	3
		1997.. 597 618	152 869	193 653	251 096	537 741	132 459	173 089	232 193	X	X	X	X
331319	Other aluminum rolling & drawing	1998.. 163 493	55 894	44 356	63 243	161 646	67 969	33 018	60 659	1	4	1	1
		1997.. 155 544	62 487	30 920	62 137	139 204	46 426	36 857	55 921	X	X	X	X
3314	Nonferrous metal (except aluminum) production & processing	1998.. 3 679 849	925 438	1 702 214	1 052 197	3 821 554	927 325	1 851 393	1 042 836	1	1	1	1
		1997.. 3 824 965	925 315	1 851 277	1 048 373	3 843 984	953 615	1 927 369	963 000	X	X	X	X
33141	Nonferrous metal (except aluminum) smelting & refining	1998.. 875 748	184 876	454 941	235 932	931 626	178 612	512 818	240 196	1	3	1	2
		1997.. 920 171	174 838	509 276	236 057	974 585	193 715	540 602	240 268	X	X	X	X
331411	Primary smelting & refining of copper	1998.. 404 951	69 539	276 095	59 317	478 912	74 246	335 547	69 119	1	1	1	1
		1997.. 478 912	74 246	335 547	69 119	527 278	90 582	357 113	79 583	X	X	X	X
331419	Other nonferrous metal primary smelting & refining	1998.. 470 798	115 337	178 846	176 615	452 714	104 366	177 271	171 077	1	4	1	2
		1997.. 441 259	100 592	173 729	166 938	447 307	103 133	183 489	160 685	X	X	X	X
33142	Copper rolling, drawing, extruding, & alloying	1998.. 970 913	277 276	388 022	305 615	1 023 055	305 440	428 090	289 525	1	1	1	2
		1997.. 1 032 099	307 174	433 197	291 728	1 017 462	297 651	449 742	270 069	X	X	X	X
331421	Copper rolling, drawing, & extruding	1998.. 759 890	183 491	343 473	232 926	817 044	210 414	384 792	221 838	1	1	1	2
		1997.. 827 786	212 947	390 387	224 452	822 796	205 041	407 456	210 299	X	X	X	X
331422	Copper wire (except mechanical) drawing	1998.. 130 485	55 579	29 999	44 908	119 471	53 333	28 805	37 333	4	2	12	4
		1997.. 117 843	52 565	28 340	36 938	104 872	47 447	25 708	31 717	X	X	X	X
331423	Secondary smelting, refining, & alloying of copper	1998.. 80 538	38 207	14 551	27 781	86 540	41 693	14 493	30 354	4	5	1	4
		1997.. 86 470	41 662	14 470	30 338	89 794	45 163	16 578	28 053	X	X	X	X
33149	Other nonferrous metal rolling, drawing, extruding, & alloying	1998.. 1 833 187	463 286	859 251	510 651	1 866 872	443 272	910 484	513 116	1	1	1	1
		1997.. 1 872 695	443 303	908 804	520 588	1 851 937	462 249	937 025	452 663	X	X	X	X
331491	Other nonferrous metal rolling, drawing, & extruding	1998.. 1 388 185	309 315	709 097	369 773	1 415 460	300 275	743 063	372 122	1	2	1	1
		1997.. 1 420 729	300 668	741 794	378 267	1 415 465	301 994	781 093	332 378	X	X	X	X
331492	Other nonferrous metal secondary smelting, refining, & alloying	1998.. 445 002	153 971	150 154	140 878	451 412	142 997	167 421	140 994	1	2	2	2
		1997.. 451 966	142 635	167 010	142 321	436 472	160 255	155 932	120 285	X	X	X	X
3315	Foundries	1998.. 2 734 635	956 501	874 497	903 637	2 722 795	921 412	884 794	916 589	1	2	2	1
		1997.. 2 725 205	924 214	887 633	913 358	2 615 298	889 883	859 351	866 064	X	X	X	X
33151	Ferrous metal foundries	1998.. 1 663 362	667 572	477 683	518 108	1 663 194	624 806	496 213	542 175	2	3	3	2
		1997.. 1 682 563	633 388	505 032	544 143	1 621 366	618 592	478 553	524 221	X	X	X	X
331511	Iron foundries	1998.. 1 013 972	477 892	214 456	321 624	1 013 093	454 480	212 104	346 509	3	2	5	3
		1997.. 1 033 048	461 542	222 719	348 787	999 482	462 852	220 502	316 128	X	X	X	X
331512	Steel investment foundries	1998.. 284 422	61 733	146 677	76 013	297 521	48 919	164 966	83 636	5	26	5	2
		1997.. 299 118	49 418	164 751	84 949	276 155	39 256	145 256	91 643	X	X	X	X
331513	Steel foundries (except investment)	1998.. 364 967	127 946	116 550	120 472	352 580	121 407	119 143	112 030	1	2	1	1
		1997.. 350 397	122 428	117 562	110 407	345 729	116 484	112 795	116 450	X	X	X	X
33152	Nonferrous metal foundries	1998.. 1 071 273	288 930	396 814	385 529	1 059 601	296 605	388 581	374 414	1	2	2	2
		1997.. 1 042 642	290 826	382 601	369 219	993 932	271 291	380 798	341 843	X	X	X	X
331521	Aluminum die-casting foundries	1998.. 343 101	101 273	123 522	118 305	335 592	105 454	105 789	124 349	2	2	3	3
		1997.. 333 983	105 137	104 935	123 911	322 234	98 423	112 916	110 895	X	X	X	X

See footnotes at end of table.

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—				
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D	
		A	B	C	D	E	F	G	H	A	B	C	D	
332	Fabricated metal product mfg—Con.													
3325	Hardware mfg	1 328 875	442 040	426 684	460 151	1 292 269	421 280	441 024	429 966	1	2	2	1	
	1997..	1 310 970	424 988	448 791	437 191	1 249 693	401 100	432 941	415 652	X	X	X	X	
33251	Hardware mfg	1 328 875	442 040	426 684	460 151	1 292 269	421 280	441 024	429 966	1	2	2	1	
	1997..	1 310 970	424 988	448 791	437 191	1 249 693	401 100	432 941	415 652	X	X	X	X	
332510	Hardware mfg	1 328 875	442 040	426 684	460 151	1 292 269	421 280	441 024	429 966	1	2	2	1	
	1997..	1 310 970	424 988	448 791	437 191	1 249 693	401 100	432 941	415 652	X	X	X	X	
3326	Spring & wire product mfg	1 026 416	487 752	192 937	345 726	1 006 623	479 373	174 974	352 275	3	5	6	4	
	1997..	1 002 834	470 279	174 843	357 712	970 160	457 305	169 041	343 814	X	X	X	X	
33261	Spring & wire product mfg	1 026 416	487 752	192 937	345 726	1 006 623	479 373	174 974	352 275	3	5	6	4	
	1997..	1 002 834	470 279	174 843	357 712	970 160	457 305	169 041	343 814	X	X	X	X	
332611	Spring (heavy gauge) mfg	107 537	53 499	28 096	25 942	121 548	66 094	16 159	39 295	22	36	30	48	
	1997..	116 985	64 384	14 950	37 651	106 085	56 537	16 757	32 791	X	X	X	X	
332612	Spring (light gauge) mfg	223 200	118 190	32 365	72 645	215 091	110 039	33 689	71 363	3	4	4	3	
	1997..	204 743	107 234	31 494	66 015	202 411	108 520	28 174	65 735	X	X	X	X	
332618	Other fabricated wire product mfg	695 678	316 063	132 476	247 139	669 983	303 240	125 127	241 617	2	3	5	3	
	1997..	681 106	298 661	128 399	254 046	661 664	292 266	124 110	245 288	X	X	X	X	
3327	Machine shops, turned product, & screw, nut, & bolt mfg	5 276 697	1 612 140	2 323 376	1 341 180	5 073 739	1 529 192	2 302 542	1 242 005	2	3	3	3	
	1997..	5 202 469	1 483 615	2 441 592	1 277 262	4 978 840	1 490 246	2 281 823	1 206 771	X	X	X	X	
33271	Machine shops	3 063 772	674 536	1 619 550	769 685	2 975 487	661 534	1 616 257	697 696	4	7	5	4	
	1997..	3 100 323	603 220	1 752 931	744 172	2 942 258	606 686	1 658 662	676 910	X	X	X	X	
332710	Machine shops	3 063 772	674 536	1 619 550	769 685	2 975 487	661 534	1 616 257	697 696	4	7	5	4	
	1997..	3 100 323	603 220	1 752 931	744 172	2 942 258	606 686	1 658 662	676 910	X	X	X	X	
33272	Turned product & screw, nut, & bolt mfg	2 212 925	937 604	703 826	571 495	2 098 252	867 658	686 285	544 309	2	2	2	3	
	1997..	2 102 146	880 395	688 661	533 090	2 036 582	883 560	623 161	529 861	X	X	X	X	
332721	Precision turned product mfg	900 156	319 390	332 154	248 612	867 030	297 370	328 689	240 972	3	6	3	5	
	1997..	876 430	307 898	326 755	241 777	826 701	293 251	305 645	227 805	X	X	X	X	
332722	Bolt, nut, screw, rivet, & washer mfg	1 312 769	618 214	371 672	322 883	1 231 222	570 288	357 597	303 337	1	1	1	3	
	1997..	1 225 716	572 497	361 906	291 313	1 209 881	590 309	317 516	302 056	X	X	X	X	
3328	Coating, engraving, heat treating, & allied activities	1 685 450	552 429	325 702	807 319	1 652 897	525 858	321 081	805 958	1	2	1	1	
	1997..	1 650 909	523 445	327 693	799 771	1 558 583	545 250	313 022	700 311	X	X	X	X	
33281	Coating, engraving, heat treating, & allied activities	1 685 450	552 429	325 702	807 319	1 652 897	525 858	321 081	805 958	1	2	1	1	
	1997..	1 650 909	523 445	327 693	799 771	1 558 583	545 250	313 022	700 311	X	X	X	X	
332811	Metal heat treating	421 569	125 464	116 352	179 754	418 360	126 601	117 025	174 735	2	6	3	4	
	1997..	430 979	122 537	120 840	187 602	395 371	123 845	106 843	164 683	X	X	X	X	
332812	Metal coating/engraving (exc jewelry/silverware)/allied services	912 905	330 171	156 757	425 977	890 982	304 364	152 920	433 698	1	1	1	2	
	1997..	872 130	307 288	155 735	409 107	828 305	320 068	149 521	358 776	X	X	X	X	
332813	Electroplating, plating, polishing, anodizing, & coloring	350 976	96 795	52 593	201 588	343 555	94 894	51 136	197 526	2	2	4	1	
	1997..	347 800	93 620	51 118	203 062	334 907	101 397	56 658	176 852	X	X	X	X	
3329	Other fabricated metal product mfg	8 869 028	3 336 995	2 606 802	2 925 231	8 668 489	3 267 916	2 552 560	2 848 013	1	2	1	1	
	1997..	8 578 422	3 206 462	2 511 584	2 860 376	8 466 379	3 129 511	2 561 565	2 775 303	X	X	X	X	
33291	Metal valve mfg	4 299 289	1 796 069	1 109 490	1 393 729	4 280 100	1 749 996	1 109 828	1 420 276	1	2	3	2	
	1997..	4 313 013	1 761 660	1 114 532	1 436 821	4 208 954	1 740 471	1 154 777	1 313 706	X	X	X	X	
332911	Industrial valve mfg	1 951 997	736 175	534 541	681 281	2 006 041	744 270	548 325	713 446	1	1	4	2	
	1997..	1 975 424	721 479	536 293	717 652	1 945 979	727 708	601 432	616 839	X	X	X	X	
332912	Fluid power valve & hose fitting mfg	1 323 339	576 659	343 280	403 401	1 261 425	545 554	329 051	386 820	1	2	3	4	
	1997..	1 255 438	539 571	330 570	385 297	1 224 660	544 754	322 022	357 884	X	X	X	X	
332913	Plumbing fixture fitting & trim mfg	523 567	207 706	120 092	195 769	552 488	241 412	132 002	179 075	8	14	2	7	
	1997..	566 796	249 845	133 985	182 966	537 567	230 005	126 324	181 238	X	X	X	X	
332919	Other metal valve & pipe fitting mfg	500 386	275 529	111 577	113 279	460 146	218 760	100 450	140 936	6	11	14	17	
	1997..	515 355	250 765	113 684	150 906	500 748	238 004	104 999	157 745	X	X	X	X	
33299	All other fabricated metal product mfg	4 569 739	1 540 926	1 497 312	1 531 502	4 388 389	1 517 920	1 442 732	1 427 736	1	2	2	1	
	1997..	4 265 409	1 444 802	1 397 052	1 423 555	4 257 425	1 389 040	1 406 788	1 461 597	X	X	X	X	
332991	Ball & roller bearing mfg	1 040 837	393 323	363 661	283 851	1 003 497	351 765	360 714	291 018	1	1	1	1	
	1997..	960 594	316 998	356 275	287 323	963 018	302 232	358 469	302 317	X	X	X	X	
332992	Small arms ammunition mfg	219 179	97 597	51 035	70 546	229 640	113 790	51 225	64 625	1	1	1	1	
	1997..	226 891	114 015	48 417	64 459	227 534	106 542	49 074	71 918	X	X	X	X	
332993	Ammunition (except small arms) mfg	131 707	10 767	107 876	13 064	138 277	7 450	117 469	13 358	1	5	1	2	
	1997..	135 143	7 706	113 909	13 528	179 106	9 828	155 420	13 858	X	X	X	X	
332994	Small arms mfg	361 932	147 130	108 211	106 591	355 538	146 867	107 402	101 269	1	2	1	1	
	1997..	353 674	146 557	106 186	100 931	374 456	149 803	120 140	104 513	X	X	X	X	
332995	Other ordnance & accessories mfg	239 695	5 163	197 388	37 144	262 297	62 105	158 290	41 902	1	1	1	1	
	1997..	264 045	61 798	160 224	42 023	253 521	61 828	146 509	45 184	X	X	X	X	
332996	Fabricated pipe & pipe fitting mfg	706 906	248 981	161 048	296 876	688 730	254 020	163 306	271 404	3	3	5	5	
	1997..	670 721	232 793	164 353	273 575	658 451	215 916	153 613	288 922	X	X	X	X	
332997	Industrial pattern mfg	64 836	13 681	41 471	9 685	48 306	5 661	33 097	9 548	26	A	17	13	
	1997..	50 733	6 219	34 167	10 347	50 628	7 394	32 983	10 251	X	X	X	X	
332998	Enameled iron & metal sanitary ware mfg	250 378	92 420	72 481	85 477	244 879	91 114	71 718	82 047	1	1	1	1	
	1997..	249 823	92 586	73 323	83 914	233 618	87 953	61 463	84 202	X	X	X	X	
332999	All other miscellaneous fabricated metal product mfg	1 554 269	531 864	394 140	628 264	1 417 225	485 149	379 511	552 565	3	4	5	2	
	1997..	1 353 785	466 130	340 198	547 457	1 317 093	447 544	329 117	540 432	X	X	X	X	

See footnotes at end of table.

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—			
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D
		A	B	C	D	E	F	G	H	A	B	C	D
333	Machinery mfg	45 561 744	14 791 336	15 250 821	15 519 587	43 993 901	13 835 536	15 545 601	14 612 764	1	1	1	1
	1997..	44 610 476	14 124 146	15 552 514	14 933 816	43 166 534	13 510 499	15 609 513	14 046 522	X	X	X	X
3331	Agriculture, construction, & mining machinery mfg	9 663 075	4 343 506	2 327 803	2 991 767	9 052 395	3 932 442	2 168 910	2 951 043	1	1	1	2
	1997..	9 224 299	3 992 034	2 144 851	3 087 414	8 601 468	3 540 629	2 306 892	2 753 947	X	X	X	X
33311	Agricultural implement mfg	3 556 279	1 795 437	745 457	1 015 386	3 444 703	1 727 714	719 706	997 283	1	2	1	1
	1997..	3 438 272	1 717 233	727 608	993 431	3 154 924	1 556 143	717 600	881 181	X	X	X	X
333111	Farm machinery & equipment mfg	2 346 990	989 219	596 315	761 456	2 285 633	975 135	598 183	712 315	2	3	2	2
	1997..	2 277 103	964 146	602 038	710 919	2 071 759	885 146	582 521	604 092	X	X	X	X
333112	Lawn & garden tractor & home lawn & garden equipment mfg	1 209 289	806 218	149 142	253 930	1 159 070	752 579	121 523	284 968	1	2	2	2
	1997..	1 161 169	753 087	125 570	282 512	1 083 165	670 997	135 079	277 089	X	X	X	X
33312	Construction machinery mfg	3 680 636	1 207 678	1 096 786	1 376 172	3 386 333	1 004 686	984 865	1 396 783	2	4	1	3
	1997..	3 537 790	1 030 639	945 999	1 561 152	3 468 718	960 601	1 172 872	1 335 245	X	X	X	X
333120	Construction machinery mfg	3 680 636	1 207 678	1 096 786	1 376 172	3 386 333	1 004 686	984 865	1 396 783	2	4	1	3
	1997..	3 537 790	1 030 639	945 999	1 561 152	3 468 718	960 601	1 172 872	1 335 245	X	X	X	X
33313	Mining & oil & gas field machinery mfg	2 426 160	1 340 390	485 561	600 208	2 221 358	1 200 042	464 339	556 977	2	2	5	2
	1997..	2 248 237	1 244 162	471 244	532 831	1 977 826	1 023 885	416 420	537 521	X	X	X	X
333131	Mining machinery & equipment mfg	663 286	343 011	157 079	163 196	645 245	344 614	136 399	164 232	3	3	3	7
	1997..	600 500	330 154	128 973	141 373	572 472	308 802	121 156	142 514	X	X	X	X
333132	Oil & gas field machinery & equipment mfg	1 762 873	997 379	328 481	437 013	1 576 113	855 428	327 940	392 745	2	2	7	2
	1997..	1 647 737	914 008	342 271	391 458	1 405 354	715 083	295 264	395 007	X	X	X	X
3332	Industrial machinery mfg	6 911 132	1 657 717	2 346 067	2 907 347	7 169 668	1 719 197	2 635 859	2 814 612	2	3	3	2
	1997..	7 224 858	1 772 084	2 620 541	2 832 233	6 653 322	1 641 023	2 459 456	2 552 843	X	X	X	X
33321	Sawmill & woodworking machinery mfg	216 706	83 853	70 750	62 103	197 399	75 744	68 920	52 735	10	23	11	5
	1997..	191 951	69 870	68 789	53 292	186 371	71 274	70 012	45 085	X	X	X	X
333210	Sawmill & woodworking machinery mfg	216 706	83 853	70 750	62 103	197 399	75 744	68 920	52 735	10	23	11	5
	1997..	191 951	69 870	68 789	53 292	186 371	71 274	70 012	45 085	X	X	X	X
33322	Plastics & rubber industry machinery mfg	619 483	207 470	219 940	192 072	677 567	221 344	245 730	210 493	7	2	14	6
	1997..	670 136	224 354	248 172	197 610	625 746	203 631	236 068	186 047	X	X	X	X
333220	Plastics & rubber industry machinery mfg	619 483	207 470	219 940	192 072	677 567	221 344	245 730	210 493	7	2	14	6
	1997..	670 136	224 354	248 172	197 610	625 746	203 631	236 068	186 047	X	X	X	X
33329	Other industrial machinery mfg	6 074 943	1 366 394	2 055 377	2 653 172	6 294 702	1 422 109	2 321 209	2 551 383	2	3	3	2
	1997..	6 362 771	1 477 860	2 303 580	2 581 331	5 841 205	1 366 118	2 153 376	2 321 711	X	X	X	X
333291	Paper industry machinery mfg	666 585	156 365	306 424	203 795	639 238	149 094	305 108	185 036	3	1	3	8
	1997..	642 561	148 719	305 296	188 546	590 286	135 502	264 891	189 893	X	X	X	X
333292	Textile machinery mfg	375 222	107 349	95 945	95 945	378 162	113 208	99 420	165 534	2	3	3	3
	1997..	373 120	112 227	96 093	164 800	362 543	112 663	92 919	156 961	X	X	X	X
333293	Printing machinery & equipment mfg	799 682	165 112	268 828	365 742	745 406	160 152	292 152	293 101	8	16	9	9
	1997..	839 529	197 028	307 970	334 531	793 628	192 061	294 892	306 675	X	X	X	X
333294	Food product machinery mfg	536 415	191 089	126 312	219 013	539 423	184 468	133 291	221 664	2	2	5	5
	1997..	546 324	187 514	132 834	225 976	535 491	179 253	124 197	232 041	X	X	X	X
333295	Semiconductor machinery mfg	2 150 378	319 128	763 334	1 067 916	2 342 555	342 850	941 047	1 058 658	3	4	4	3
	1997..	2 247 995	334 486	890 389	1 023 120	1 842 826	283 387	735 291	824 148	X	X	X	X
333298	All other industrial machinery mfg	1 546 662	427 351	494 533	624 778	1 649 919	472 337	550 191	627 390	5	7	12	4
	1997..	1 713 242	497 886	570 998	644 358	1 716 431	463 252	641 186	611 993	X	X	X	X
3333	Commercial & service industry machinery mfg	4 145 087	1 260 474	1 047 772	1 836 841	3 579 901	1 105 059	955 299	1 519 543	3	4	5	5
	1997..	3 991 059	1 163 291	1 167 604	1 660 164	3 835 138	1 134 088	1 256 510	1 444 540	X	X	X	X
33331	Commercial & service industry machinery mfg	4 145 087	1 260 474	1 047 772	1 836 841	3 579 901	1 105 059	955 299	1 519 543	3	4	5	5
	1997..	3 991 059	1 163 291	1 167 604	1 660 164	3 835 138	1 134 088	1 256 510	1 444 540	X	X	X	X
333311	Automatic vending machine mfg	183 872	79 622	26 832	77 419	166 998	71 513	23 239	72 245	4	3	4	6
	1997..	167 836	71 732	23 379	72 725	171 420	68 224	32 190	71 006	X	X	X	X
333312	Commercial laundry, drycleaning, & pressing machine mfg	117 587	34 472	24 069	59 046	115 755	32 739	27 423	55 593	1	1	1	1
	1997..	116 102	32 755	27 593	55 754	118 682	25 403	34 752	58 527	X	X	X	X
333313	Office machinery mfg	705 064	227 366	207 696	270 002	642 547	215 290	201 006	226 251	1	1	1	1
	1997..	797 434	278 819	234 914	283 701	721 693	255 514	270 992	195 187	X	X	X	X
333314	Optical instrument & lens mfg	689 748	180 604	198 262	310 882	520 066	135 556	213 038	171 473	19	22	22	27
	1997..	556 449	134 820	234 693	186 936	500 161	118 465	228 540	153 156	X	X	X	X
333315	Photographic & photocopying equipment mfg	926 684	264 668	231 765	430 251	846 122	240 968	212 024	393 130	1	1	2	1
	1997..	830 097	236 516	202 057	391 524	825 149	270 290	207 500	347 359	X	X	X	X
333319	Other commercial & service industry machinery mfg	1 522 132	473 742	359 150	689 240	1 288 413	408 993	278 569	600 851	2	4	5	3
	1997..	1 523 141	408 649	444 968	669 520	1 498 033	396 192	482 536	619 305	X	X	X	X
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	3 638 846	1 328 107	786 147	1 524 593	3 544 568	1 320 933	790 357	1 433 277	2	3	2	2
	1997..	3 629 730	1 332 124	803 965	1 493 641	3 693 074	1 475 812	822 970	1 394 292	X	X	X	X
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	3 638 846	1 328 107	786 147	1 524 593	3 544 568	1 320 933	790 357	1 433 277	2	3	2	2
	1997..	3 629 730	1 332 124	803 965	1 493 641	3 693 074	1 475 812	822 970	1 394 292	X	X	X	X
333411	Air purification equipment mfg	263 574	75 127	62 214	126 233	240 182	63 567	61 812	114 803	7	12	8	7
	1997..	253 689	64 931	66 522	122 236	254 544	66 110	76 383	112 051	X	X	X	X

See footnotes at end of table.

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—										
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D							
		A	B	C	D	E	F	G	H	A	B	C	D							
333	Machinery mfg—Con.																			
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg—Con.																			
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg—Con.																			
333412	Industrial & commercial fan & blower mfg	1998.. 215 213	26 907	64 576	123 729	205 685	36 340	66 819	102 525	3	40	19	15							
		1997.. 219 364	44 062	51 934	123 368	209 971	39 003	58 625	112 343	X	X	X	X							
333414	Heating equipment (except warm air furnaces) mfg ...	1998.. 528 756	167 856	107 035	253 866	568 030	204 961	105 386	257 683	11	24	7	5							
		1997.. 572 320	205 889	108 207	258 224	530 964	201 928	101 387	227 649	X	X	X	X							
333415	AC & warm air heating & commercial/industrial refrig equip mfg	1998.. 2 631 303	1 058 217	552 321	1 020 765	2 530 671	1 016 065	556 341	958 266	1	1	1	2							
		1997.. 2 584 357	1 017 242	577 302	989 813	2 697 595	1 168 771	586 575	942 249	X	X	X	X							
3335	Metalworking machinery mfg ...	1998.. 5 639 101	1 588 349	2 948 317	1 102 435	5 629 701	1 363 701	3 250 833	1 015 167	1	2	2	2							
		1997.. 5 499 419	1 406 409	3 055 629	1 037 381	5 386 707	1 227 153	3 021 218	1 138 336	X	X	X	X							
33351	Metalworking machinery mfg	1998.. 5 639 101	1 588 349	2 948 317	1 102 435	5 629 701	1 363 701	3 250 833	1 015 167	1	2	2	2							
		1997.. 5 499 419	1 406 409	3 055 629	1 037 381	5 386 707	1 227 153	3 021 218	1 138 336	X	X	X	X							
333511	Industrial mold mfg	1998.. 593 557	117 708	368 643	107 206	576 090	76 824	390 508	108 758	3	9	3	7							
		1997.. 569 492	79 604	393 514	96 374	576 722	80 711	386 796	109 215	X	X	X	X							
333512	Machine tool (metal cutting types) mfg	1998.. 1 436 762	515 195	675 238	246 329	1 473 279	455 470	764 950	252 859	3	4	5	7							
		1997.. 1 518 720	467 725	784 112	266 883	1 446 501	350 457	750 286	345 758	X	X	X	X							
333513	Machine tool (metal forming types) mfg	1998.. 641 364	142 988	367 724	130 652	522 093	107 400	318 380	96 313	3	5	3	3							
		1997.. 545 729	125 473	313 843	106 413	538 533	117 158	326 067	95 308	X	X	X	X							
333514	Special die & tool, die set, jig, & fixture mfg	1998.. 1 107 292	216 928	689 079	201 285	1 104 435	184 670	728 086	191 679	2	4	2	6							
		1997.. 1 115 444	192 504	733 837	189 103	1 073 306	184 189	660 133	228 984	X	X	X	X							
333515	Cutting tool & machine tool accessory mfg	1998.. 989 071	472 418	301 408	215 245	902 573	399 982	293 072	209 518	2	3	3	2							
		1997.. 905 317	403 701	292 105	209 511	880 103	374 958	280 278	224 867	X	X	X	X							
333516	Rolling mill machinery & equipment mfg	1998.. 164 408	12 965	87 504	63 940	177 420	17 403	122 286	37 731	4	11	8	3							
		1997.. 178 736	17 657	121 716	39 363	167 611	17 418	134 993	15 200	X	X	X	X							
333518	Other metalworking machinery mfg	1998.. 706 647	110 147	458 722	137 778	873 812	121 951	633 551	118 310	4	6	6	6							
		1997.. 665 981	119 745	416 502	129 734	703 931	102 262	482 665	119 004	X	X	X	X							
3336	Engine, turbine, & power transmission equipment mfg ...	1998.. 4 799 794	1 174 279	2 359 530	1 265 985	4 496 800	1 171 070	2 226 468	1 099 262	1	1	1	3							
		1997.. 4 447 910	1 149 876	2 221 869	1 076 165	4 774 335	1 372 672	2 250 831	1 150 832	X	X	X	X							
33361	Engine, turbine, & power transmission equipment mfg	1998.. 4 799 794	1 174 279	2 359 530	1 265 985	4 496 800	1 171 070	2 226 468	1 099 262	1	1	1	3							
		1997.. 4 447 910	1 149 876	2 221 869	1 076 165	4 774 335	1 372 672	2 250 831	1 150 832	X	X	X	X							
333611	Turbine & turbine generator set unit mfg	1998.. 1 644 414	140 756	1 235 451	268 207	1 636 843	176 055	1 147 927	312 860	1	2	1	1							
		1997.. 1 631 307	176 115	1 145 348	309 844	1 837 866	309 317	1 158 599	369 950	X	X	X	X							
333612	Speed changer, industrial high-speed drive, & gear mfg	1998.. 539 776	223 333	172 772	143 671	498 800	207 149	164 168	127 483	2	2	5	6							
		1997.. 470 993	208 882	149 262	112 849	459 562	199 424	152 317	107 821	X	X	X	X							
333613	Mechanical power transmission equipment mfg	1998.. 751 208	351 595	235 488	164 125	730 502	341 839	230 392	158 271	2	1	2	8							
		1997.. 745 613	337 454	238 134	170 025	710 606	324 025	229 540	157 041	X	X	X	X							
333618	Other engine equipment mfg	1998.. 1 864 396	458 595	715 818	689 983	1 630 656	446 028	683 981	500 647	2	2	1	4							
		1997.. 1 599 997	427 425	689 125	483 447	1 766 301	539 906	710 375	516 020	X	X	X	X							
3339	Other general-purpose machinery mfg	1998.. 10 764 710	3 438 905	3 435 185	3 890 619	10 520 869	3 223 134	3 517 874	3 779 860	1	3	2	2							
		1997.. 10 593 201	3 308 328	3 538 055	3 746 818	10 222 490	3 119 122	3 491 636	3 611 732	X	X	X	X							
33391	Pump & compressor mfg	1998.. 2 761 339	1 014 945	839 432	906 962	2 804 637	1 037 229	838 633	928 775	3	8	2	7							
		1997.. 2 749 177	1 027 292	841 082	880 803	2 650 636	1 012 653	777 331	860 652	X	X	X	X							
333911	Pump & pumping equipment mfg	1998.. 1 492 385	596 157	412 401	483 827	1 496 786	549 604	380 502	566 679	3	3	3	10							
		1997.. 1 444 362	541 920	379 936	522 506	1 402 154	541 949	367 530	492 675	X	X	X	X							
333912	Air & gas compressor mfg	1998.. 1 112 218	373 121	386 132	352 964	1 139 476	434 198	412 037	293 240	5	21	4	11							
		1997.. 1 133 865	431 192	414 482	288 191	1 072 643	414 797	359 337	298 509	X	X	X	X							
333913	Measuring & dispensing pump mfg	1998.. 156 736	45 667	40 899	70 170	168 376	53 426	46 094	68 856	2	8	1	4							
		1997.. 170 950	54 180	46 664	70 106	175 839	55 907	50 464	69 468	X	X	X	X							
33392	Material handling equipment mfg	1998.. 2 380 709	653 388	612 328	1 114 992	2 231 884	559 755	647 145	1 024 984	3	5	10	2							
		1997.. 2 252 464	582 244	645 982	1 024 238	2 184 553	494 304	648 681	1 041 568	X	X	X	X							
333921	Elevator & moving stairway mfg	1998.. 199 979	35 053	86 329	78 597	201 022	36 115	86 799	78 108	3	13	7	8							
		1997.. 201 583	35 914	85 073	80 596	185 465	36 812	77 920	70 733	X	X	X	X							
333922	Conveyor & conveying equipment mfg	1998.. 667 402	205 013	154 250	308 139	643 571	152 622	221 116	269 833	10	13	37	3							
		1997.. 696 594	163 038	232 797	300 759	661 974	152 726	234 005	275 243	X	X	X	X							
333923	Overhead traveling crane, hoist, & monorail system mfg	1998.. 622 913	170 671	203 858	248 384	536 195	148 444	170 231	217 520	4	10	10	2							
		1997.. 561 295	167 443	159 307	234 545	533 237	125 340	175 631	232 266	X	X	X	X							
333924	Industrial truck, tractor, trailer, & stacker machinery mfg	1998.. 890 414	242 650	167 892	479 872	851 096	222 574	168 999	459 522	3	3	3	4							
		1997.. 792 992	215 849	168 805	408 338	803 877	179 426	161 125	463 326	X	X	X	X							
33399	All other general-purpose machinery mfg	1998.. 5 622 663	1 770 572	1 983 425	1 868 665	5 484 347	1 626 150	2 032 096	1 826 101	1	2	1	1							
		1997.. 5 591 560	1 698 792	2 050 991	1 841 777	5 387 301	1 612 165	2 065 624	1 709 512	X	X	X	X							
333991	Power-driven handtool mfg	1998.. 484 360	285 157	101 431	97 773	424 978	238 274	100 536	86 167	1	1	1	1							
		1997.. 425 780	237 823	99 267	88 690	414 395	202 271	100 314	111 810	X	X	X	X							

See footnotes at end of table.

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—										
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D							
		A	B	C	D	E	F	G	H	A	B	C	D							
333	Machinery mfg—Con.																			
3339	Other general-purpose machinery mfg—Con.																			
33399	All other general-purpose machinery mfg—Con.																			
333992	Welding & soldering equipment mfg.....	1998.. 731 148	265 048	252 902	213 197	777 819	265 769	297 456	214 595	2	1	7	1							
		1997.. 810 035	283 840	301 482	224 713	759 359	244 048	305 886	209 425	X	X	X	X							
333993	Packaging machinery mfg ..	1998.. 1 025 496	302 429	335 346	387 720	1 062 327	296 932	377 111	388 284	3	5	4	3							
		1997.. 1 066 405	297 236	374 366	394 803	1 103 240	315 495	433 826	353 919	X	X	X	X							
333994	Industrial process furnace & oven mfg.....	1998.. 458 336	58 829	192 048	207 459	417 657	50 435	176 165	191 057	5	4	8	5							
		1997.. 478 888	64 405	196 932	217 551	450 902	50 189	201 219	199 494	X	X	X	X							
333995	Fluid power cylinder & actuator mfg.....	1998.. 761 287	177 615	370 213	213 459	682 676	134 471	328 477	219 728	4	13	1	5							
		1997.. 684 981	134 534	329 234	221 213	648 476	143 618	308 971	195 887	X	X	X	X							
333996	Fluid power pump & motor mfg	1998.. 497 443	171 883	190 728	134 832	486 370	164 585	194 010	127 775	1	1	1	1							
		1997.. 483 196	164 237	190 080	128 879	462 874	146 255	209 583	107 036	X	X	X	X							
333997	Scale & balance (except laboratory) mfg	1998.. 98 491	24 254	33 624	40 612	102 577	31 177	29 044	42 355	5	8	18	5							
		1997.. 105 044	29 132	31 332	44 580	115 423	32 366	34 928	48 129	X	X	X	X							
333999	All other miscellaneous general-purpose machinery mfg.....	1998.. 1 566 103	485 356	507 134	573 613	1 529 944	444 506	529 297	556 140	2	2	2	3							
		1997.. 1 537 231	487 585	528 298	521 348	1 432 632	477 923	470 897	483 812	X	X	X	X							
334	Computer & electronic product mfg	1998.. 51 530 567	13 180 950	19 404 397	18 945 220	52 538 570	12 082 229	20 489 924	19 966 417	1	1	1	1							
		1997.. 52 414 394	12 355 368	20 162 010	19 897 016	49 949 698	11 379 757	20 506 496	18 063 445	X	X	X	X							
3341	Computer & peripheral equipment mfg.....	1998.. 8 721 285	2 430 548	2 666 511	3 624 227	10 010 860	2 614 235	3 106 791	4 289 834	3	6	1	3							
		1997.. 10 051 848	2 762 830	3 115 422	4 173 596	9 572 914	2 617 711	3 171 083	3 784 120	X	X	X	X							
33411	Computer & peripheral equipment mfg.....	1998.. 8 721 285	2 430 548	2 666 511	3 624 227	10 010 860	2 614 235	3 106 791	4 289 834	3	6	1	3							
		1997.. 10 051 848	2 762 830	3 115 422	4 173 596	9 572 914	2 617 711	3 171 083	3 784 120	X	X	X	X							
334111	Electronic computer mfg ..	1998.. 4 373 913	1 063 100	1 313 292	1 997 521	5 479 236	1 351 676	1 578 391	2 549 169	1	1	1	1							
		1997.. 5 448 864	1 449 189	1 612 920	2 386 755	5 481 446	1 601 084	1 628 795	2 251 567	X	X	X	X							
334112	Computer storage device mfg	1998.. 1 165 288	253 461	550 601	361 225	1 394 450	321 563	559 818	513 069	1	1	1	1							
		1997.. 1 440 661	339 691	558 937	542 033	1 314 494	267 498	587 808	459 188	X	X	X	X							
334113	Computer terminal mfg	1998.. 188 945	58 602	42 813	87 530	179 875	58 448	38 413	83 014	1	2	2	3							
		1997.. 199 589	62 393	44 244	82 952	205 914	69 483	50 102	86 329	X	X	X	X							
334119	Other computer peripheral equipment mfg.....	1998.. 2 993 140	1 055 385	759 805	1 177 950	2 957 299	882 547	930 169	1 144 583	8	14	3	8							
		1997.. 2 962 734	911 557	899 321	1 151 856	2 571 060	679 646	904 378	987 036	X	X	X	X							
3342	Communications equipment mfg	1998.. 11 193 490	3 509 474	3 512 346	4 171 671	10 862 628	2 805 153	3 274 201	4 783 274	1	1	1	1							
		1997.. 11 253 347	3 171 172	3 292 763	4 789 412	10 185 844	2 680 061	3 327 494	4 178 289	X	X	X	X							
33421	Telephone apparatus mfg	1998.. 5 010 802	1 696 516	1 552 555	1 761 730	4 307 844	1 312 269	1 218 461	1 777 115	1	1	1	1							
		1997.. 4 467 741	1 365 398	1 251 786	1 850 557	4 137 782	1 102 504	1 279 406	1 755 872	X	X	X	X							
334210	Telephone apparatus mfg ..	1998.. 5 010 802	1 696 516	1 552 555	1 761 730	4 307 844	1 312 269	1 218 461	1 777 115	1	1	1	1							
		1997.. 4 467 741	1 365 398	1 251 786	1 850 557	4 137 782	1 102 504	1 279 406	1 755 872	X	X	X	X							
33422	Radio & TV broadcasting & wireless communications equipment mfg.....	1998.. 5 565 145	1 630 650	1 858 154	2 076 341	5 915 589	1 306 359	1 942 514	2 666 716	1	1	1	1							
		1997.. 6 111 426	1 610 290	1 917 461	2 583 675	5 430 943	1 360 703	1 941 820	2 128 420	X	X	X	X							
334220	Radio & TV broadcasting & wireless communications equipment mfg.....	1998.. 5 565 145	1 630 650	1 858 154	2 076 341	5 915 589	1 306 359	1 942 514	2 666 716	1	1	1	1							
		1997.. 6 111 426	1 610 290	1 917 461	2 583 675	5 430 943	1 360 703	1 941 820	2 128 420	X	X	X	X							
33429	Other communications equipment mfg.....	1998.. 617 543	182 308	101 636	333 599	639 195	186 526	113 226	339 443	2	3	4	2							
		1997.. 674 180	195 484	123 516	355 180	617 119	216 854	106 268	293 997	X	X	X	X							
334290	Other communications equipment mfg.....	1998.. 617 543	182 308	101 636	333 599	639 195	186 526	113 226	339 443	2	3	4	2							
		1997.. 674 180	195 484	123 516	355 180	617 119	216 854	106 268	293 997	X	X	X	X							
3343	Audio & video equipment mfg ..	1998.. 848 840	262 302	134 898	451 639	809 053	247 430	154 123	407 500	3	6	10	4							
		1997.. 807 816	252 992	158 050	396 774	912 801	271 562	165 945	475 294	X	X	X	X							
33431	Audio & video equipment mfg	1998.. 848 840	262 302	134 898	451 639	809 053	247 430	154 123	407 500	3	6	10	4							
		1997.. 807 816	252 992	158 050	396 774	912 801	271 562	165 945	475 294	X	X	X	X							
334310	Audio & video equipment mfg	1998.. 848 840	262 302	134 898	451 639	809 053	247 430	154 123	407 500	3	6	10	4							
		1997.. 807 816	252 992	158 050	396 774	912 801	271 562	165 945	475 294	X	X	X	X							
3344	Semiconductor & other electronic component mfg	1998.. 13 966 186	3 295 226	5 885 767	4 785 193	14 390 418	2 992 928	6 501 860	4 895 630	1	1	1	1							
		1997.. 14 005 810	2 803 290	6 233 356	4 969 164	13 157 953	2 592 058	5 999 298	4 566 597	X	X	X	X							
33441	Semiconductor & other electronic component mfg ..	1998.. 13 966 186	3 295 226	5 885 767	4 785 193	14 390 418	2 992 928	6 501 860	4 895 630	1	1	1	1							
		1997.. 14 005 810	2 803 290	6 233 356	4 969 164	13 157 953	2 592 058	5 999 298	4 566 597	X	X	X	X							
334411	Electron tube mfg	1998.. 531 547	195 445	154 434	181 668	550 169	182 798	177 075	190 296	1	1	1	1							
		1997.. 560 854	180 081	187 541	193 232	494 999	161 001	152 773	181 225	X	X	X	X							
334412	Bare printed circuit board mfg	1998.. 830 161	178 474	320 512	331 175	750 438	123 216	318 511	308 711	2	1	2	4							
		1997.. 765 963	147 900	309 375	308 688	716 492	133 180	305 389	277 923	X	X	X	X							
334413	Semiconductor & related device mfg	1998.. 6 191 361	1 528 663	3 543 166	1 119 531	6 299 694	1 522 212	3 523 585	1 253 897	1	2	1	2							
		1997.. 5 759 959	1 323 499	3 274 458	1 162 002	4 933 274	1 087 420	2 799 510	1 046 344	X	X	X	X							
334414	Electronic capacitor mfg ..	1998.. 385 602	121 803	98 200	165 600	377 842	118 000	101 949	157 894	1	3	3	1							
		1997.. 423 351	141 404	108 288	173 659	359 831	104 350	103 059	152 422	X	X	X	X							
334415	Electronic resistor mfg	1																		

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—			
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D
		A	B	C	D	E	F	G	H	A	B	C	D
334	Computer & electronic product mfg—Con.												
3344	Semiconductor & other electronic component mfg—Con.												
33441	Semiconductor & other electronic component mfg—Con.												
334418	Printed circuit assembly (electronic assembly) mfg	1998.. 3 270 080	635 298	925 760	1 709 023	3 698 878	439 059	1 527 566	1 732 253	2	2	3	3
		1997.. 3 675 824	363 591	1 497 418	1 814 815	4 001 349	470 648	1 766 515	1 764 186	X	X	X	X
334419	Other electronic component mfg	1998.. 1 636 292	312 606	481 755	841 931	1 632 871	293 443	491 770	847 659	1	3	1	1
		1997.. 1 712 053	330 601	468 577	912 875	1 533 327	297 774	496 205	739 348	X	X	X	X
3345	Navigational, measuring, medical, & control instruments mfg	1998.. 15 915 257	3 391 410	7 077 052	5 446 796	15 584 617	3 138 273	7 316 164	5 130 180	1	2	1	1
		1997.. 15 452 929	3 091 800	7 237 791	5 123 338	15 321 608	2 951 285	7 721 499	4 648 824	X	X	X	X
33451	Navigational, measuring, medical, & control instruments mfg	1998.. 15 915 257	3 391 410	7 077 052	5 446 796	15 584 617	3 138 273	7 316 164	5 130 180	1	2	1	1
		1997.. 15 452 929	3 091 800	7 237 791	5 123 338	15 321 608	2 951 285	7 721 499	4 648 824	X	X	X	X
334510	Electromedical & electrotherapeutic apparatus mfg	1998.. 2 186 983	859 633	477 119	850 231	2 036 707	796 024	424 031	816 652	4	9	7	2
		1997.. 2 072 739	797 660	432 836	842 243	1 996 543	770 210	425 612	800 721	X	X	X	X
334511	Search, detection, navigation, & guidance instrument mfg	1998.. 6 146 076	401 681	4 464 514	1 279 882	6 137 251	360 875	4 646 179	1 130 197	1	2	1	1
		1997.. 6 137 199	371 545	4 655 272	1 110 382	6 464 514	328 473	5 152 773	983 268	X	X	X	X
334512	Automatic environmental control mfg	1998.. 434 441	127 255	168 967	138 219	412 340	110 622	162 746	138 972	5	3	5	7
		1997.. 390 108	104 403	154 692	131 013	373 922	133 207	137 468	103 247	X	X	X	X
334513	Industrial process control instrument mfg	1998.. 1 242 592	340 024	314 838	587 730	1 251 950	280 868	357 590	613 492	2	3	3	2
		1997.. 1 280 901	276 965	343 063	660 873	1 262 431	300 102	340 406	621 923	X	X	X	X
334514	Totalizing fluid meter & counting device mfg	1998.. 351 871	69 763	139 663	142 445	371 443	68 424	139 795	163 224	1	1	1	1
		1997.. 343 882	69 173	120 769	153 940	327 718	64 842	126 710	136 166	X	X	X	X
334515	Electricity measuring & testing instrument mfg	1998.. 2 476 057	649 220	771 617	1 055 220	2 445 993	638 793	820 499	986 701	1	1	1	2
		1997.. 2 291 189	564 339	770 982	955 868	2 096 926	463 864	768 462	864 600	X	X	X	X
334516	Analytical laboratory instrument mfg	1998.. 1 041 748	335 017	190 034	516 696	1 042 745	338 980	203 496	500 269	1	1	2	1
		1997.. 1 061 898	367 978	203 921	489 999	1 036 825	390 838	203 683	442 304	X	X	X	X
334517	Irradiation apparatus mfg	1998.. 746 722	240 376	190 076	316 270	685 064	209 867	200 802	274 396	1	2	2	2
		1997.. 684 472	212 248	199 759	272 465	637 242	202 003	198 930	236 309	X	X	X	X
334518	Watch, clock, & part mfg	1998.. 197 320	93 434	63 320	40 567	191 094	93 272	60 646	37 176	2	2	4	1
		1997.. 181 429	83 805	59 522	38 102	170 870	84 264	49 432	37 174	X	X	X	X
334519	Other measuring & controlling device mfg	1998.. 1 091 446	275 006	296 905	519 535	1 010 030	240 549	300 381	469 101	1	4	2	2
		1997.. 1 009 112	243 684	296 975	468 453	954 617	213 482	318 023	423 112	X	X	X	X
3346	Mfg & reproducing magnetic & optical media	1998.. 885 508	291 991	127 823	465 695	880 994	284 210	136 784	459 999	2	4	1	1
		1997.. 842 644	273 284	124 628	444 732	798 578	267 080	121 177	410 321	X	X	X	X
33461	Mfg & reproducing magnetic & optical media	1998.. 885 508	291 991	127 823	465 695	880 994	284 210	136 784	459 999	2	4	1	1
		1997.. 842 644	273 284	124 628	444 732	798 578	267 080	121 177	410 321	X	X	X	X
334611	Software reproducing	1998.. 168 568	67 935	24 182	76 451	154 985	56 428	24 851	73 706	8	17	4	4
		1997.. 61 172	20 132	7 725	33 315	65 073	20 874	7 993	36 206	X	X	X	X
334612	Prerecorded CD (except software), tape, & record reproducing	1998.. 213 199	79 341	21 619	112 239	206 698	80 800	21 424	104 474	2	3	2	1
		1997.. 203 752	76 669	21 173	105 910	225 826	87 865	28 786	109 175	X	X	X	X
334613	Magnetic & optical recording media mfg	1998.. 503 741	144 714	82 021	277 006	519 311	146 982	90 509	281 819	1	1	1	1
		1997.. 577 720	176 483	95 730	305 507	507 679	158 341	84 398	264 940	X	X	X	X
335	Electrical equipment, appliance, & component mfg	1998.. 13 832 360	5 084 556	3 353 158	5 394 647	13 664 585	4 889 333	3 469 154	5 306 099	1	1	2	2
		1997.. 13 592 424	4 868 337	3 486 888	5 237 199	13 087 708	4 808 396	3 458 976	4 820 336	X	X	X	X
3351	Electric lighting equipment mfg	1998.. 1 524 714	550 117	202 290	772 307	1 510 832	578 184	198 865	733 783	2	2	5	2
		1997.. 1 524 330	585 930	198 920	739 480	1 451 511	575 745	187 585	688 181	X	X	X	X
33511	Electric lamp bulb & part mfg	1998.. 225 563	100 029	28 504	97 030	250 366	124 181	25 492	100 693	1	1	1	1
		1997.. 248 761	123 904	25 498	99 359	250 386	129 723	20 224	100 439	X	X	X	X
335110	Electric lamp bulb & part mfg	1998.. 225 563	100 029	28 504	97 030	250 366	124 181	25 492	100 693	1	1	1	1
		1997.. 248 761	123 904	25 498	99 359	250 386	129 723	20 224	100 439	X	X	X	X
33512	Lighting fixture mfg	1998.. 1 299 150	450 088	173 786	675 277	1 260 465	454 003	173 373	633 090	2	2	5	3
		1997.. 1 275 569	462 026	173 422	640 121	1 201 125	446 022	167 361	587 742	X	X	X	X
335121	Residential electric lighting fixture mfg	1998.. 404 456	144 831	46 817	212 808	409 777	161 323	48 338	200 116	2	3	2	3
		1997.. 389 267	159 294	43 066	186 907	369 344	162 180	41 076	166 088	X	X	X	X
335122	Commercial/industrial/institutional electric lighting fixture mfg	1998.. 495 156	169 309	75 731	250 117	477 939	166 722	70 721	240 496	2	1	2	4
		1997.. 490 865	172 348	71 845	246 672	460 906	160 282	70 634	229 990	X	X	X	X
335129	Other lighting equipment mfg	1998.. 399 538	135 948	51 239	212 352	372 749	125 958	54 314	192 477	6	5	18	7
		1997.. 395 437	130 384	58 511	206 542	370 875	123 560	55 651	191 664	X	X	X	X
3352	Household appliance mfg	1998.. 2 253 714	1 319 807	280 986	652 921	2 114 292	1 200 052	262 997	651 243	3	2	1	5
		1997.. 2 141 807	1 205 648	268 918	667 241	2 088 014	1 201 992	290 104	595 918	X	X	X	X

See footnotes at end of table.

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—			
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D
		A	B	C	D	E	F	G	H	A	B	C	D
335	Electrical equipment, appliance, & component mfg—Con.												
3352	Household appliance mfg—Con.												
33521	Small electrical appliance mfg	741 892	388 258	126 845	226 789	702 470	381 013	112 711	208 746	3	1	2	5
	1997..	708 601	381 954	114 906	211 741	689 853	393 564	115 564	180 725	X	X	X	X
335211	Electric housewares & household fan mfg	458 017	219 335	66 819	171 864	455 085	234 367	61 640	159 078	4	2	4	7
	1997..	460 506	234 970	63 697	161 839	437 568	235 526	69 175	132 867	X	X	X	X
335212	Household vacuum cleaner mfg	283 875	168 923	60 027	54 925	247 385	146 646	51 071	49 668	1	1	1	1
	1997..	248 095	146 984	51 209	49 902	252 285	158 038	46 389	47 858	X	X	X	X
33522	Major appliance mfg	1 511 822	931 550	154 140	426 132	1 411 822	819 039	150 286	442 497	4	2	1	7
	1997..	1 433 206	823 694	154 012	455 500	1 398 161	808 428	174 540	415 193	X	X	X	X
335221	Household cooking appliance mfg	488 255	259 414	60 698	168 142	390 244	184 620	54 843	150 781	11	9	2	18
	1997..	414 415	190 346	58 300	165 769	417 928	197 091	70 538	150 299	X	X	X	X
335222	Household refrigerator & home freezer mfg	438 515	302 078	26 272	110 165	419 573	269 281	24 094	126 198	1	1	1	1
	1997..	419 351	269 047	24 047	126 257	396 889	261 505	33 883	101 501	X	X	X	X
335224	Household laundry equipment mfg	362 441	263 968	31 857	66 616	369 888	259 566	33 962	76 360	1	1	1	1
	1997..	368 146	259 321	34 279	74 546	341 830	236 562	30 744	74 524	X	X	X	X
335228	Other major household appliance mfg	222 611	106 089	35 314	81 208	232 117	105 572	37 387	89 158	1	1	1	1
	1997..	231 294	104 980	37 386	88 928	241 514	113 270	39 375	88 869	X	X	X	X
3353	Electrical equipment mfg	4 150 075	1 204 019	1 248 316	1 697 739	4 285 840	1 156 041	1 339 850	1 789 949	2	2	4	5
	1997..	4 318 137	1 175 177	1 361 202	1 781 758	4 244 687	1 161 782	1 376 952	1 705 953	X	X	X	X
33531	Electrical equipment mfg	4 150 075	1 204 019	1 248 316	1 697 739	4 285 840	1 156 041	1 339 850	1 789 949	2	2	4	5
	1997..	4 318 137	1 175 177	1 361 202	1 781 758	4 244 687	1 161 782	1 376 952	1 705 953	X	X	X	X
335311	Power, distribution, & specialty transformer mfg	494 746	150 120	127 555	217 071	534 570	139 642	156 837	238 091	6	9	6	12
	1997..	528 371	136 525	165 349	226 497	511 129	124 295	166 345	220 489	X	X	X	X
335312	Motor & generator mfg	1 270 726	462 711	399 267	408 747	1 332 458	428 308	405 063	499 087	5	3	9	19
	1997..	1 387 648	453 361	424 686	509 601	1 404 648	479 710	420 993	503 945	X	X	X	X
335313	Switchgear & switchboard apparatus mfg	871 942	213 790	266 242	391 910	808 571	194 634	251 696	362 241	3	1	2	4
	1997..	806 024	195 247	250 877	359 900	780 733	181 390	263 887	335 456	X	X	X	X
335314	Relay & industrial control mfg	1 512 662	377 398	455 252	680 012	1 610 241	393 457	526 254	690 530	3	3	8	2
	1997..	1 596 094	390 044	520 290	685 760	1 548 177	376 387	525 727	646 063	X	X	X	X
3359	Other electrical equipment & component mfg	5 903 858	2 010 612	1 621 566	2 271 680	5 753 622	1 955 055	1 667 442	2 131 125	1	1	1	2
	1997..	5 608 150	1 901 582	1 657 848	2 048 720	5 303 496	1 868 877	1 604 335	1 830 284	X	X	X	X
33591	Battery mfg	672 960	226 777	228 457	217 726	668 946	216 302	256 996	195 647	1	1	1	2
	1997..	669 506	215 628	259 356	194 522	672 136	230 878	243 002	198 256	X	X	X	X
335911	Storage battery mfg	485 866	192 869	145 177	147 820	502 940	187 993	176 216	138 730	1	1	1	2
	1997..	506 897	189 993	178 843	138 061	520 781	207 001	181 919	131 861	X	X	X	X
335912	Primary battery mfg	187 094	33 908	83 280	69 906	166 006	28 309	80 780	56 917	3	5	1	4
	1997..	162 609	25 635	80 513	56 461	151 355	23 877	61 083	66 395	X	X	X	X
33592	Communication & energy wire & cable mfg	1 857 910	827 085	509 906	520 919	1 841 153	821 725	485 928	533 500	1	1	2	3
	1997..	1 859 121	816 881	497 426	544 814	1 743 861	789 755	480 181	473 925	X	X	X	X
335921	Fiber optic cable mfg	358 163	112 054	139 564	106 546	351 793	113 436	112 790	125 567	2	2	3	4
	1997..	344 025	110 736	111 023	122 266	285 997	75 742	91 455	118 800	X	X	X	X
335929	Other communication & energy wire mfg	1 499 746	715 031	370 343	414 373	1 489 360	708 289	373 138	407 933	1	1	3	3
	1997..	1 515 096	706 145	386 403	422 548	1 457 864	714 013	388 726	355 125	X	X	X	X
33593	Wiring device mfg	1 430 245	520 053	271 823	638 370	1 428 209	524 529	300 997	602 682	1	3	4	3
	1997..	1 326 844	487 671	288 991	550 182	1 298 058	489 691	293 920	514 447	X	X	X	X
335931	Current-carrying wiring device mfg	794 642	231 638	187 144	375 860	787 470	236 076	197 896	353 497	2	5	2	4
	1997..	726 650	215 414	192 386	318 850	704 636	212 218	193 362	299 056	X	X	X	X
335932	Noncurrent-carrying wiring device mfg	635 603	288 415	84 678	262 510	640 739	288 453	103 101	249 185	1	2	12	4
	1997..	600 194	272 257	96 605	231 332	593 422	277 473	100 558	215 391	X	X	X	X
33599	All other electrical equipment & component mfg	1 942 743	436 698	611 380	894 665	1 815 314	392 499	623 520	799 295	1	1	2	3
	1997..	1 752 679	381 402	612 075	759 202	1 589 441	358 553	587 232	643 656	X	X	X	X
335991	Carbon & graphite product mfg	535 598	150 261	234 526	150 811	500 823	124 645	227 966	148 212	1	1	1	4
	1997..	511 415	124 293	239 107	148 015	458 328	116 274	224 264	117 790	X	X	X	X
335999	All other miscellaneous electrical equipment & component mfg	1 407 145	286 437	376 853	743 854	1 314 491	267 854	395 554	651 083	2	2	3	4
	1997..	1 241 264	257 109	372 968	611 187	1 131 113	242 279	362 968	525 866	X	X	X	X
336	Transportation equipment mfg	75 761 757	9 684 166	48 880 688	17 196 902	65 685 642	9 176 662	40 686 854	15 822 125	1	1	1	1
	1997..	65 863 649	9 464 771	40 439 851	15 959 027	64 701 279	8 361 715	41 369 154	14 970 410	X	X	X	X
3361	Motor vehicle mfg	4 335 081	369 007	1 586 378	2 379 695	4 613 010	479 709	1 623 391	2 509 910	1	1	1	1
	1997..	4 589 500	468 180	1 579 798	2 541 522	4 263 515	346 912	1 472 124	2 444 415	X	X	X	X
33611	Automobile & light duty motor vehicle mfg	3 469 661	260 438	1 291 517	1 917 706	3 814 282	344 043	1 365 215	2 105 024	1	1	1	1
	1997..	3 804 485	337 125	1 363 860	2 103 500	3 599 166	246 988	1 274 550	2 077 628	X	X	X	X
336111	Automobile mfg	1 910 828	180 578	452 524	1 277 725	2 202 946	210 208	555 774	1 436 964	1	1	1	1
	1997..	2 193 552	203 442	554 694	1 435 416	2 185 429	133 444	509 334	1 542 651	X	X	X	X
336112	Light truck & utility vehicle mfg	1 558 834	79 860	838 993	639 981	1 611 336	133 835	809 441	668 060	1	1	1	1
	1997..	1 610 933	133 683	809 166	668 084	1 413 737	113 544	765 216	534 977	X	X	X	X
33612	Heavy duty truck mfg	865 420	108 570	294 861	461 989	798 728	135 666	258 176	404 886	1	2	1	1
	1997..	785 015	131 055	215 938	438 022	664 285	99 924	197 574	366 787	X	X	X	X
336120	Heavy duty truck mfg	865 420	108 570	294 861	461 989	798 728	135 666	258 176	404 886	1	2	1	1
	1997..	785 015	131 055	215 938	438 022	664 285	99 924	197 574	366 787	X	X	X	X

See footnotes at end of table.

Table 6. Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—				
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D	
		A	B	C	D	E	F	G	H	A	B	C	D	
336	Transportation equipment mfg—Con.													
3364	Aerospace product & parts mfg—Con.													
33641	Aerospace product & parts mfg—Con.													
336419	Other guided missile & space vehicle parts & auxiliary equip mfg	1998.. 204 522	D	131 939	D	195 725	D	141 322	D	1	X	X	X	X
		1997.. 112 183	D	76 960	D	103 231	D	70 969	D	X	X	X	X	X
3365	Railroad rolling stock mfg	1998.. 1 682 792	475 673	705 815	501 303	1 592 216	394 220	764 061	433 936	1	1	1	1	1
		1997.. 1 591 538	400 213	761 923	429 402	1 395 563	321 732	661 262	412 569	X	X	X	X	X
33651	Railroad rolling stock mfg	1998.. 1 682 792	475 673	705 815	501 303	1 592 216	394 220	764 061	433 936	1	1	1	1	1
		1997.. 1 591 538	400 213	761 923	429 402	1 395 563	321 732	661 262	412 569	X	X	X	X	X
336510	Railroad rolling stock mfg ..	1998.. 1 682 792	475 673	705 815	501 303	1 592 216	394 220	764 061	433 936	1	1	1	1	1
		1997.. 1 591 538	400 213	761 923	429 402	1 395 563	321 732	661 262	412 569	X	X	X	X	X
3366	Ship & boat building	1998.. 1 810 865	297 928	938 871	574 066	1 955 669	305 074	1 096 113	554 482	3	7	4	2	
		1997.. 2 006 997	312 525	1 129 521	564 951	2 119 688	279 342	1 298 892	541 454	X	X	X	X	
33661	Ship & boat building	1998.. 1 810 865	297 928	938 871	574 066	1 955 669	305 074	1 096 113	554 482	3	7	4	2	
		1997.. 2 006 997	312 525	1 129 521	564 951	2 119 688	279 342	1 298 892	541 454	X	X	X	X	
336611	Ship building & repairing	1998.. 1 041 379	65 940	736 036	239 404	1 218 286	62 016	920 781	235 488	3	2	4	2	
		1997.. 1 256 005	68 682	948 651	238 672	1 412 273	51 773	1 130 498	230 002	X	X	X	X	
336612	Boat building	1998.. 769 485	231 988	202 835	334 662	737 383	243 057	175 332	318 994	4	9	4	3	
		1997.. 750 992	243 843	180 870	326 279	707 415	227 569	168 394	311 452	X	X	X	X	
3369	Other transportation equipment mfg	1998.. 1 241 128	460 944	309 029	471 155	1 218 338	476 146	323 556	418 636	2	1	1	4	
		1997.. 1 243 632	479 294	326 442	437 896	1 213 800	420 080	379 772	413 948	X	X	X	X	
33699	Other transportation equipment mfg	1998.. 1 241 128	460 944	309 029	471 155	1 218 338	476 146	323 556	418 636	2	1	1	4	
		1997.. 1 243 632	479 294	326 442	437 896	1 213 800	420 080	379 772	413 948	X	X	X	X	
336991	Motorcycle, bicycle, & parts mfg	1998.. 462 616	223 037	74 564	165 016	427 110	225 359	80 568	121 182	4	2	5	12	
		1997.. 430 412	227 059	80 644	122 709	392 706	212 131	70 036	110 539	X	X	X	X	
336992	Military armored vehicle, tank, & tank component mfg	1998.. 243 668	25 398	159 325	58 945	242 930	10 530	175 856	56 544	1	1	1	1	
		1997.. 262 050	13 994	179 093	68 963	286 719	6 763	231 898	48 058	X	X	X	X	
336999	All other transportation equipment mfg	1998.. 534 844	212 510	75 140	247 194	548 299	240 257	67 132	240 909	1	1	2	1	
		1997.. 551 170	238 241	66 705	246 224	534 375	201 186	77 838	255 351	X	X	X	X	
337	Furniture & related product mfg ...	1998.. 8 032 505	2 696 799	1 634 787	3 700 919	7 528 655	2 543 182	1 528 445	3 457 027	1	1	2	1	
		1997.. 7 582 820	2 527 830	1 562 632	3 492 358	7 399 620	2 544 018	1 523 675	3 331 927	X	X	X	X	
3371	Household & institutional furniture & kitchen cabinet mfg	1998.. 5 329 513	1 871 828	1 090 667	2 367 018	4 971 587	1 763 569	1 021 853	2 186 165	1	1	1	1	
		1997.. 4 960 206	1 737 560	1 033 511	2 189 135	4 796 627	1 762 408	983 271	2 050 948	X	X	X	X	
33711	Wood kitchen cabinet & counter top mfg	1998.. 929 041	230 280	216 968	481 793	858 776	221 541	202 100	435 136	2	4	4	2	
		1997.. 855 382	210 408	207 106	437 868	819 972	210 198	208 574	401 200	X	X	X	X	
337110	Wood kitchen cabinet & counter top mfg	1998.. 929 041	230 280	216 968	481 793	858 776	221 541	202 100	435 136	2	4	4	2	
		1997.. 855 382	210 408	207 106	437 868	819 972	210 198	208 574	401 200	X	X	X	X	
33712	Household & institutional furniture mfg	1998.. 4 400 472	1 641 548	873 699	1 885 225	4 112 811	1 542 028	819 753	1 751 029	1	1	2	2	
		1997.. 4 104 824	1 527 152	826 405	1 751 267	3 976 655	1 552 210	774 697	1 649 748	X	X	X	X	
337121	Upholstered household furniture mfg	1998.. 888 425	186 626	152 831	548 969	823 077	175 596	157 147	490 334	1	1	1	1	
		1997.. 846 174	173 202	162 991	509 981	788 758	161 376	149 547	477 835	X	X	X	X	
337122	Nonupholstered wood household furniture mfg ...	1998.. 2 267 371	1 075 249	461 843	730 279	2 140 464	1 027 005	418 933	694 527	1	1	1	1	
		1997.. 2 151 847	1 028 469	422 980	700 398	2 125 317	1 042 542	409 401	673 374	X	X	X	X	
337124	Metal household furniture mfg	1998.. 431 397	156 976	77 085	197 335	378 667	133 290	67 133	178 244	7	4	11	11	
		1997.. 349 491	130 629	62 828	156 034	364 475	142 675	55 260	166 540	X	X	X	X	
337125	Household furniture (except wood & metal) mfg	1998.. 78 295	32 469	7 466	38 360	77 376	36 126	8 222	33 028	3	6	3	8	
		1997.. 78 195	36 495	7 604	34 096	71 262	31 552	8 460	31 250	X	X	X	X	
337127	Institutional furniture mfg ...	1998.. 704 689	182 773	165 423	356 493	661 699	163 218	158 935	339 546	3	4	4	4	
		1997.. 648 063	151 667	160 948	335 448	591 002	157 521	144 609	288 872	X	X	X	X	
337129	Wood television, radio, & sewing machine cabinet mfg	1998.. 30 295	7 456	9 051	13 788	31 526	6 792	9 384	15 350	6	1	1	12	
		1997.. 31 054	6 690	9 054	15 310	35 841	16 544	7 420	11 877	X	X	X	X	
3372	Office furniture (including fixtures) mfg	1998.. 2 079 198	647 870	497 356	933 972	1 984 779	615 357	463 589	905 833	2	2	6	2	
		1997.. 2 031 762	622 886	478 570	930 306	2 025 043	615 322	486 036	923 685	X	X	X	X	
33721	Office furniture (including fixtures) mfg	1998.. 2 079 198	647 870	497 356	933 972	1 984 779	615 357	463 589	905 833	2	2	6	2	
		1997.. 2 031 762	622 886	478 570	930 306	2 025 043	615 322	486 036	923 685	X	X	X	X	
337211	Wood office furniture mfg ..	1998.. 347 811	72 750	84 607	190 455	338 404	77 097	78 926	182 381	2	2	2	4	
		1997.. 355 000	80 613	83 870	190 517	333 383	77 190	79 458	176 735	X	X	X	X	
337212	Custom architectural woodwork & millwork mfg	1998.. 256 302	67 546	97 737	91 019	215 261	61 263	66 386	87 613	13	5	30	4	
		1997.. 205 782	54 319	67 337	84 126	201 197	58 488	65 137	77 572	X	X	X	X	
337214	Office furniture (except wood) mfg	1998.. 505 423	118 381	82 500	304 542	497 197	110 041	93 986	293 170	1	4	7	1	
		1997.. 492 967	106 109	93 164	293 694	510 501	108 007	108 448	294 046	X	X	X	X	
337215	Showcase, partition, shelving, & locker mfg	1998.. 969 662	389 193	232 513	347 956	933 916	366 957	224 291	342 669	2	3	4	4	
		1997.. 978 013	381 845	234 199	361 969	979 962	371 637	232 993	375 332	X	X	X	X	

See footnotes at end of table.

Table 6. **Value of Manufacturers' Inventories by Stage of Fabrication for Industry Groups and Industries: Beginning and End of 1998—Con.**

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

NAICS code	Industry group and industry	End of year				Beginning of year				Relative standard error of estimate ¹ (percent) for column—			
		Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	Total ¹	Finished products	Work-in-process	Materials, supplies, fuels, etc.	A	B	C	D
		A	B	C	D	E	F	G	H				
339	Miscellaneous mfg—Con.												
3399	Other miscellaneous mfg—Con.												
33999	All other miscellaneous mfg—Con.												
339999	All other miscellaneous mfg 1998..	1 551 361	668 209	217 125	666 027	1 393 782	586 432	201 608	605 742	1	1	2	2
 1997..	1 390 797	588 241	198 979	603 577	1 354 527	584 946	188 300	581 281	X	X	X	X

¹Description of relative standard error of estimate is given in Appendix B. Percentage standard errors shown are approximate relative standard errors of estimates of level.

Note: 1997 data may differ from that published in the 1997 Census of Manufactures final industry series because of changes encountered in subsequent 1997 census review or revisions discovered during 1998 Annual Survey of Manufactures review.

Appendix A.

Explanation of Terms

BEGINNING- AND END-OF-YEAR INVENTORIES

Respondents were asked to report their beginning-of-year and end-of-year inventories at cost or market. Effective with the 1982 Economic Census, this change to a uniform instruction for reporting inventories was introduced for all sector reports. Prior to 1982, respondents were permitted to value inventories using any generally accepted accounting method (FIFO, LIFO, market, to name a few). Beginning in 1982, LIFO users were asked to first report inventory values prior to the LIFO adjustment and then to report the LIFO reserve and the LIFO value after adjustment for the reserve.

Inventory Data by Stage of Fabrication

Total inventories and three detailed components (finished goods, work-in-process, and materials, supplies, fuels, etc.) were collected.

When using inventory data by stage of fabrication, it should be noted that an item treated as a finished product by an establishment in one industry may be reported as a raw material by an establishment in a different industry. For example, the finished-product inventories of a steel mill would be reported as raw materials by a stamping plant. Such differences are present in the inventory figures by stage of fabrication shown for all publication levels.

TOTAL CAPITAL EXPENDITURES (NEW AND USED)

For establishments in operation and any known plants under construction, manufacturers were asked to report their new and used expenditures for (1) permanent additions and major alterations to manufacturing establishments and (2) machinery and equipment used for replacement and additions to plant capacity if they were of the type for which depreciation accounts were ordinarily maintained.

Totals for expenditures include the costs of assets leased from nonmanufacturing concerns through capital leases. New facilities owned by the federal government but operated under contract by private companies and plant and equipment furnished to the manufacturer by communities and nonprofit organizations are excluded. Also excluded are expenditures for land and cost of maintenance and repairs charged as current operating expenses.

For any equipment or structure transferred for the use of the reporting establishment by the parent company or one of its subsidiaries, the value at which it was transferred to the establishment was to be reported.

If an establishment changed ownership during the year, the cost of the fixed assets (building and equipment) was to be reported.

QUANTITY OF ELECTRIC ENERGY CONSUMED FOR HEAT AND POWER

Data on the quantity of purchased electric energy were collected. In addition, information was collected on the quantity of electric energy generated by the establishment and the quantity of electric energy sold or transferred to other establishments of the same company.

COST OF MATERIALS

This term refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed, whether purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

Included in this item are:

1. **Cost of parts, components, containers, etc.** Includes all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year.
2. **Cost of products bought and sold without further processing.**
3. **Cost of fuels consumed for heat and power.** Includes the cost of fuel consumed, whether purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.
4. **Cost of purchased electricity.** The cost of purchased electric energy represents the amount actually used during the year for heat and power. In addition, information was collected on the quantity of electric energy generated by the establishment and the quantity of electric energy sold or transferred to other plants of the same company.

5. **Cost of contract work.** This term applies to work done by others on materials furnished by the manufacturing establishment. The actual cost of the material was reported on the cost of materials, parts, and containers line of this item. The term "Contract Work" refers to the fee a company pays to another company to perform a service.

Duplication in Cost of Materials and Value of Shipments

The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries includes large amounts of duplication since the products of some industries are used as materials by others. This duplication results, in part, from the addition of related industries representing successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the food group and the addition of pulp mills to paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication (the value of finished manufactures) tends to approximate two-thirds of the total value of products reported in the survey.

Duplication of products within individual industries is significant within a number of industry groups; e.g., machinery and transportation industries. These industries frequently include complete machinery and their parts. In this case, the parts made for original equipment are materials consumed for assembly plants in the same industry.

Even when no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual manufacturing industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs of value of shipments, both among industries and within the same industry.

Before 1962, cost of materials and value of shipments were not published for some industries which included considerable duplication. Since then, these data have been published for all industries at the U.S. level and beginning in 1964, for all geographic levels.

VALUE OF SHIPMENTS

This item covers the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts, such as receipts for contract work performed for others, installation and repair, sales of scrap, and sales of products bought and sold without further processing. Included are all items made by or for the establishments from materials owned by it, whether sold, transferred to other plants of the same company, or

shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

In the case of multiestablishment companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value, including not only the direct cost of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

Duplication in Cost of Materials and Value of Shipments

The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries includes large amounts of duplication since the products of some industries are used as materials by others. This duplication results, in part, from the addition of related industries representing successive stages in the production of a finished manufactured product. Examples are the addition of flour mills industry products to bakeries in the food group and the addition of pulp mills industry products to paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication (the value of finished manufactures) tends to approximate two-thirds of the total value of products reported in the annual survey.

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Before 1962, cost of materials and value of shipments were not published for some industries which included considerable duplication. Since then, these data have been published for all industries at the U.S. level and beginning in 1964, for all geographic levels.

PAYROLL

This item includes the gross earnings of all employees on the payrolls of operating manufacturing establishments paid in the calendar year. Respondents were told they could follow the definition of payrolls used for calculating

the federal withholding tax. It includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' social security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of corporations; it excludes payments to proprietors or partners of unincorporated concerns. Also excluded are payments to members of armed forces and pensioners carried on the active payrolls of manufacturing establishments.

The census definition of payrolls is identical to that recommended to all federal statistical agencies by the Office of Management and Budget. It should be noted that this definition does not include employers' social security contributions or other nonpayroll labor costs, such as employees' pension plans, group insurance premiums, and workers' compensation.

PRODUCTION-WORKER HOURS

This item covers hours worked or paid for at the manufacturing establishment, including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave.

VALUE ADDED

This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments (products manufactured plus receipts for services rendered). The result of this calculation is adjusted by the addition of value added by merchandising operations (i.e., the difference between the sales value and the cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process between the beginning- and end-of-year inventories.

For those industries where value of production is collected instead of value of shipments, value added is adjusted only for the change in work-in-process inventories between the beginning and end of year. For those industries where value of work done is collected, the value added does not include an adjustment for the change in finished goods or work-in-process inventories.

"Value added" avoids the duplication in the figure for value of shipments that results from the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

EMPLOYEES

This item includes all full-time and part-time employees on the payrolls of operating manufacturing establishments during any part of the pay period which included the 12th

of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employees" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average for the payroll periods including the 12th of March, May, August, and November.

Production Workers

This item includes workers (up through the line-supervisor level) engaged in fabricating, processing, assembling, inspecting, receiving, storing, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial and guard services, product development, auxiliary production for plant's own use (e.g., power plant), recordkeeping, and other services closely associated with these production operations at the establishment covered by the report. Employees above the working-supervisor level are excluded from this item.

All Other Employees

This item covers nonproduction employees of the manufacturing establishment, including those engaged in factory supervision above the line-supervisor level. It includes sales (including driver-salespersons), sales delivery (highway truck drivers and their helpers), advertising, credit, collection, installation and servicing of own products, clerical and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria, medical, etc.), professional, and technical employees. Also included are employees on the payroll of the manufacturing establishment engaged in the construction of major additions or alterations utilized as a separate work force.

FRINGE BENEFITS

Fringe benefits consists of legally required expenditures and payments for voluntary programs. The legally required portion consists primarily of federal old age and survivors' insurance, unemployment compensation, and workers' compensation. Payments for voluntary programs include all programs not specifically required by legislation whether they were employer initiated or the result of collective bargaining. They include the employer portion of such plans as insurance premiums, premiums for supplemental accident and sickness insurance, pension plans, supplemental unemployment compensation, welfare plans, stock purchase plans on which the employer payment is not subject to withholding tax, and deferred profit-sharing plans. They exclude such items as company-operated cafeterias, in-plant medical services, free parking lots, discounts on employee purchases, and uniforms and work clothing for employees.

TOTAL COMPENSATION

This term refers to the annual payroll or gross earnings paid in each calendar year to employees at the establishment. It includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' social security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers

of corporations; it excludes payments to proprietors or partners of unincorporated concerns. Also excluded are payments to members of armed forces and pensioners carried on the active payrolls of manufacturing establishments.

It should be noted that this definition does not include employers' social security contributions or other nonpayroll labor costs, such as employees' pension plans, group insurance premiums, and workers' compensation.

Appendix B.

Coverage and Methodology

DESCRIPTION OF THE ASM SAMPLE

The ASM sample is selected at 5-year intervals beginning the second survey year subsequent to the census. The current sample was selected from the 1992 census and has been used since 1994. A new sample will be introduced for the 1999-2003 surveys.

In 1997, both the census and ASM converted from the SIC system to NAICS for purposes of assigning industrial classifications to establishments. For the most part, the overall scope of the manufacturing sector is similar under both classification systems; however, there are selected activities that are classified as manufacturing under SIC that are considered as nonmanufacturing under NAICS. The reverse is also true.

For the 1998 survey year, an extensive sample update to address the conversion from SIC to NAICS was not undertaken. Rather, a more limited approach was taken. Establishments in the existing ASM sample were assigned the appropriate NAICS industry code using their 1997 census data. Establishments that were no longer classified as manufacturing were removed from the ASM sample. Establishments that continued to be classified as manufacturing under the NAICS were assigned a NAICS industry code for estimation purposes and remained in the ASM. Finally, the population of establishments in the 1997 census that were newly classified into the manufacturing sector solely due to the conversion to NAICS was identified and a small sample of establishments elected for inclusion in the 1998 ASM.

In 1992, there were approximately 370,000 individual manufacturing establishments. For sample efficiency and cost considerations, the 1992 manufacturing population was partitioned into two components: a mail stratum and a nonmail stratum.

Mail stratum

The mail stratum of the survey is comprised of larger single-location manufacturing companies and all manufacturing establishments of multiunit companies (companies that operate at more than one physical location). Approximately 230,000 of the 370,000 establishments in the 1992 census were assigned to the mail stratum.

On an annual basis, the mail stratum is supplemented with larger, newly active single-location companies identified from a list provided by the Internal Revenue Service (IRS) and new manufacturing locations of multiunit companies identified from the Census Bureau's Company Organization Survey (COS).

For the 1994 survey, a new sample of approximately 58,000 individual establishments was selected from the mail stratum assembled from the 1992 census. Supplemental samples representing both 1993 and 1994 births (newly active establishments that were not included in the 1992 census) were also selected. Establishments selected for the sample are mailed an ASM survey questionnaire for each year through 1998.

The 1994-98 ASM sample design is similar to the one used since 1984. Companies in the 1992 Census of Manufactures with manufacturing shipments of at least \$500 million were defined as company certainties. For these large companies, each manufacturing establishment is included in the mail sample. For the 1994-98 sample, there are approximately 650 certainty companies collectively accounting for over 18,000 establishments.

For the remaining portion of the mail component of the survey, the establishment was defined as the sample unit. All establishments with 250 employees or more were defined as employment certainties. In addition, all establishments producing electronic computers were defined as certainties. Across these three arbitrary certainty classes, there were approximately 25,000 establishments included in the sample with certainty. Collectively, these certainty establishments accounted for approximately 80 percent of the total value of shipments in the 1992 Census of Manufactures.

Smaller establishments in the remaining portion of the mail stratum were sampled with probabilities ranging from .02 to 1.00. The initial probabilities of selection assigned to these establishments were proportionate to a measure-of-size determined for each establishment. The measure-of-size was a function of the establishment's 1992 industry classification, its 1992 product class data, and the historical variability of the year-to-year estimates of the product class estimates. For each product class and industry, a desired reliability constraint was specified. Using a technique developed by Dr. James R. Chromy of the Research Triangle Institute, the initial establishment probabilities were optimized such that the expected sample satisfied all industry and product class reliability constraints while the sample size was minimized. This technique reduces the likelihood of selecting nonrepresentative samples for individual product classes or industries.

This method of assigning probabilities based on product class shipments is motivated by our primary desire to produce reliable estimates of both product class and

industry shipments. The high correlation between shipments and employment, value added, and other general statistics assures that these variables will also be well represented by the sample. The actual sample selection procedure uses an independent chance of selection method (Poisson sampling) which permits us to prevent small establishments from being selected in consecutive samples without introducing a bias into the survey estimates.

Nonmail Component

The initial nonmail component of the survey was comprised of approximately 140,000 small, single-establishment companies that were tabulated as administrative records in the 1992 Census of Manufactures. The nonmail stratum is also supplemented annually using the list of newly active single-location companies provided by the IRS and payroll cutoffs. Companies with payroll below the payroll cutoff are added to the nonmail stratum.

For this portion of the population, sampling is not used. The data for this group are estimated based on selected information obtained annually from the administrative records of the IRS and Social Security Administration (SSA). This administrative information, which includes payroll, total employment, industry classification, and physical location, is obtained under conditions which safeguard the confidentiality of both tax and census records.

DESCRIPTION OF THE ASM ESTIMATING PROCEDURE

Most of the ASM estimates derived for the mail stratum are computed using a difference estimator. At the establishment level, there is a strong correlation between the current-year data values and the corresponding 1992 (base) data values. Therefore, within the mailed stratum, for each item at each level of aggregation, an estimate of the "difference" between the current year and the base year is computed from sample cases and added to the corresponding base-year values. For the 1993-1997 ASM estimates, the 1992 Census of Manufactures values serve as the base year. For the 1998 ASM, the base has been updated to the 1997 Economic Census - Manufacturing.

Because of the positive year-to-year correlation, estimates derived using this methodology are generally more reliable than comparable estimates developed from the current sample data alone. Estimates for the capital expenditures variables are not generated using the difference estimator because the year-to-year correlations are considerably weaker. The standard linear estimator is used for these variables.

For the nonmail stratum, estimates for payroll and employment are directly tabulated from the administrative-record data provided by IRS and SSA. Estimates of data other than payroll and employment are developed from industry averages. Although the nonmail

stratum contains approximately 170,000 individual establishments in 1994, it accounts for less than 2 percent of the estimate for total value of shipments at the total manufacturing level.

Corresponding estimates for the mail and nonmail components are combined to produce the estimates included in this publication.

QUALIFICATIONS OF THE ASM DATA

The estimates developed from the sample are apt to differ somewhat from the results of a survey covering all companies in the sample lists but otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the ASM is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data for selected ASM statistics in this report. They are represented in the form of relative standard errors (the standard errors divided by the estimated values to which they refer).

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals (ranges that would include the comparable, complete-coverage value for specified percentages of all the possible samples). The complete-coverage value would be included in the range:

From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.

From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.

From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference that the comparable, complete-survey result would be within the indicated ranges would be correct in approximately the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent; that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection, reporting, coding, transcription, imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the Census Bureau's

review of the data for reasonableness and consistency. The small operational errors usually remain. To some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables in this publication having an associated standard error exceeding 15 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

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