

COMMUNICATION EQUIPMENT AND RELATED PRODUCTS

This report shows the 1947 Census of Manufactures statistics for establishments primarily engaged in the production of communication equipment and related products such as radios, radio and television equipment, radar and related detection apparatus; phonographs; electronic tubes; phonograph records; telephone and telegraph equipment; and other electrical communication equipment such as electric signaling apparatus, railroad signaling devices, etc. These establishments have been classified in five industries described separately below.

Radios and Related Products (*Full Standard Industrial Classification title and number: Radios, Radio and Television Equipment (Except Radio Tubes), Radar and Related Detection Apparatus, and Phonographs, Industry 3661.*)—This industry comprises establishments primarily engaged in manufacturing radio and television receiving and transmitting equipment, electrical and magnetic field detection apparatus, light and heat-emission detecting apparatus, object detection apparatus (radar), and other apparatus and products associated with radio equipment, including miscellaneous radio parts; phonographs and accessories (except records—Industry 3663); and public-address and music-distribution apparatus. Establishments primarily engaged in manufacturing radio-receiving and transmitting tubes are classified in Industry 3662.

In 1939, establishments producing radio parts (except loud speakers and microphones) were included in the "Communication equipment" industry. Loud speakers and microphones in 1939, as in 1947, were classified in the radio industry. In 1939, phonograph records and radio tubes were included in the "Radio, radio tubes, and phonographs" industry. In the 1947 census, these are classified in the separate industries entitled "Phonograph records" and "Electronic tubes." The reports for 1939 have been retabulated on a basis comparable with 1947. Comparable data for earlier years, however, are not available.

In this industry, the total cost of materials and the total value of product data include extensive duplication resulting from the use of products of certain establishments as materials by others. This is especially true of the parts and components for radios and phonographs which are produced by one group of companies and are reported as shipments below. Many of these components are shipped to producers of complete radios and phonographs whose value of shipments includes the value of these components. Total material costs and total value of shipments of the industry are, therefore, not shown. This duplication, however, is not contained in the data for value added by manufacture. (See GENERAL EXPLANATIONS—"Value Added by Manufacture.")

Electronic Tubes (*Standard Industrial Classification No. 3662 and Part of 3693.*)—This industry comprises establish-

ments primarily engaged in manufacturing radio receiving and transmitting tubes, and nonradio electronic tubes. Establishments primarily engaged in manufacturing X-ray tubes are classified in Industry 3693.

According to the Standard Industrial Classification, non-radio electronic tubes are classified in Industry 3693, "X-ray and therapeutic apparatus and nonradio electronic tubes." However, the 1947 census includes all electronic tubes (except X-ray) in this industry because the producers of these tubes have indicated that no exact separation could be made between nonradio electronic tubes (except X-ray) and the radio transmitting type tubes.

In 1939, establishments producing electronic tubes, except X-ray, were included in the "Radios, radio tubes, and phonographs," and "X-ray and therapeutic apparatus and electronic tubes" industries. The reports for 1939 have been retabulated to provide 1939 statistics comparable with 1947. Data for earlier years, however, are not available.

Phonograph Records (*Standard Industrial Classification No. 3663.*)—This industry comprises establishments primarily engaged in manufacturing phonograph records and record blanks. In 1939, establishments engaged primarily in manufacturing phonograph records were included in the "Radios, radio tubes, and phonographs" industry. The reports for 1939 have been retabulated in order to supply 1939 statistics comparable with 1947. Data for earlier years, however, are not available.

Telephone and Telegraph Equipment (*Standard Industrial Classification No. 3664.*)—This industry comprises establishments primarily engaged in manufacturing telephone and telegraph equipment, and parts specifically designed for inclusion in telephone and telegraph circuits. Establishments primarily engaged in manufacturing radio-telephone and radio-telegraph apparatus and supplies are classified in Industry 3661, and radio tubes in Industry 3662.

In 1939, establishments producing telephone and telegraph equipment were classified in the "Communication equipment" industry. The reports for 1939 have been retabulated in order to supply 1939 statistics comparable with 1947. Data for earlier years, however, are not available.

Communication Equipment, N.E.C. (*Standard Industrial Classification No. 3669.*)—This industry comprises establishments primarily engaged in manufacturing electrical communication equipment, not elsewhere classified, such as electric signaling apparatus, audible signals, burglar alarms, electric traffic signals, and railroad signaling devices.

In 1939, establishments producing the commodities classified in this industry were included in the "Communication equipment" industry. However, radio parts and telephone and telegraph equipment included in the industry in 1939 are now classified in other industries. The reports for 1939 have been retabulated in order to supply 1939 statistics comparable with 1947. Data for earlier years, however, are not available.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

(Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS)

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work	Value of products shipped ²
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Radios and related products:								
1947.....	857	178,595	\$462,207	142,478	\$324,300	\$773,233	(³)	(³)
1939 ⁴	305	n.a.	n.a.	45,484	47,568	125,429	(³)	(³)
Electronic tubes:								
1947.....	51	27,703	65,420	22,571	46,704	94,040	\$35,539	\$124,518
1939 ⁴	26	n.a.	n.a.	11,256	10,634	23,901	12,932	39,833
Phonograph records:								
1947.....	111	10,045	29,193	8,246	22,840	75,660	38,951	110,184
1939 ⁴	24	n.a.	n.a.	926	1,128	6,424	3,003	9,427
Telephone and telegraph equipment:								
1947.....	90	76,072	258,567	53,630	167,488	384,417	304,765	689,182
1939 ⁴	43	n.a.	n.a.	14,433	26,977	98,715	22,546	121,261
Communication equipment, n.e.c.:								
1947.....	101	10,976	31,860	7,781	19,826	46,767	22,825	69,592
1939 ⁴	62	n.a.	n.a.	2,893	4,010	12,905	5,848	18,753

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture. For "Radios and related products," "Electronic tubes," and "Phonograph records," see GENERAL EXPLANATIONS—Method of calculating value added by manufacture for selected industries in 1947.

² For 1947, value of products shipped; for 1939, value of products made. See GENERAL EXPLANATIONS—Value of products shipped.

³ The returns for 1939 have been retabulated to provide figures comparable with those for 1947. No comparable figures are available for prior years.

⁴ Omitted because of duplication in these figures. See text on industry and GENERAL EXPLANATIONS—Duplication in cost of materials and value of products.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947

(Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS)

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Radios and related products, total¹	857	178,595	\$462,207	142,478	280,163	\$324,300	\$773,233			\$43,714
New England.....	68	17,946	41,345	14,414	27,859	29,616	64,288			2,526
Massachusetts.....	38	12,383	28,929	9,413	18,319	19,179	42,157			2,302
Connecticut.....	26	5,019	11,387	4,491	8,583	9,531	20,810			185
Middle Atlantic.....	362	69,244	188,600	52,851	104,718	124,972	328,508			27,670
New York.....	231	33,412	92,726	24,955	49,746	60,651	158,570			12,396
New Jersey.....	86	22,008	60,804	16,169	31,641	39,294	88,071			4,778
Pennsylvania.....	45	13,824	35,070	11,727	23,331	25,027	81,867			10,496
North Central.....	315	79,315	200,947	66,917	130,924	150,490	325,513			11,300
Ohio.....	36	8,640	20,591	7,200	13,741	14,968	26,033			704
Indiana.....	31	18,095	44,298	15,209	30,121	33,869	77,244			3,600
Illinois.....	179	43,058	112,024	37,432	73,500	86,546	180,779			5,325
Michigan.....	22	5,115	13,349	3,936	7,336	8,438	17,959			780
South.....	30	8,632	23,655	5,463	10,897	12,314	37,963			1,651
West.....	82	3,458	9,660	2,833	5,765	6,978	16,961			567
California.....	76	3,230	9,108	2,631	5,349	6,525	16,534			469
Electronic tubes, total¹	51	27,703	65,420	22,571	43,662	46,704	94,040	\$35,539	\$124,518	5,662
New Jersey.....	11	7,471	19,426	5,769	11,202	12,855	26,874	7,516	31,021	1,162
Phonograph records, total¹	111	10,045	29,193	8,246	17,595	22,840	75,660	38,951	110,184	7,066
Northeast.....	52	5,760	16,839	4,371	9,834	12,692	36,392	21,361	55,160	4,086
New York.....	30	1,193	3,680	977	2,216	2,855	7,150	5,873	12,450	591
Pennsylvania.....	7	1,787	4,881	1,403	1,567	1,744	3,602	5,292	834	
East North Central.....	12	2,862	7,879	2,500	5,205	6,523	27,121	11,070	37,165	917
West North Central.....	5	24	60	21	47	51	101	165	260	19
South and West.....	42	1,399	4,418	1,154	2,509	3,574	12,046	6,355	17,593	1,984
Telephone and telegraph equipment, total¹	90	76,072	258,567	53,630	108,687	167,488	384,417	304,765	689,182	33,280
Communication equipment, n.e.c., total¹	101	10,976	31,860	7,781	15,381	19,826	46,767	22,825	69,592	1,395
New England.....	11	955	3,013	567	1,181	1,334	5,305	2,042	7,347	72
Middle Atlantic.....	41	7,804	23,231	5,421	10,633	14,494	30,983	14,840	45,823	1,122
New Jersey.....	6	442	1,199	327	655	728	1,218	653	1,871	83
East North Central.....	25	1,855	4,737	1,478	2,944	3,322	9,201	4,888	14,089	180
West North Central.....	9	211	527	189	378	419	770	700	1,530	11
South and West.....	15	151	352	126	245	257	508	295	803	10

¹ For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.

² Omitted because of duplication in these figures. See text on industry and GENERAL EXPLANATIONS—Duplication in cost of materials and value of products.

Radios and related products: *New England*, Vermont, 2; *Rhode Island*, 2; *North Central*, Wisconsin, 10 (1,038); *Minnesota*, 12 (767); *Iowa*, 7; *Missouri*, 12 (434); *Nebraska*, 2; *Kansas*, 4 (86); *South*, Maryland, 7 (4,067); *District of Columbia*, 3 (167); *Virginia*, 1; *North Carolina*, 3; *Georgia*, 1; *Florida*, 5 (93); *Alabama*, 1; *Texas*, 9 (125); *West*, Colorado, 1; *Arizona*, 1; *Washington*, 2; *Oregon*, 2.

Electronic tubes: *Massachusetts*, 7 (3,996); *Connecticut*, 1; *New York*, 9 (3,641); *Pennsylvania*, 11 (7,256); *Ohio*, 2; *Indiana*, 2; *Illinois*, 3 (166); *West Virginia*, 1; *Kentucky*, 2; *California*, 2.

Phonograph records: *Northeast*, *Massachusetts*, 1; *Connecticut*, 3; *New Jersey*, 11 (2,052); *East North Central*, *Ohio*, 2; *Indiana*, 2; *Illinois*, 6 (479); *Michigan*, 1; *Wisconsin*, 1; *West North Central*, *Minnesota*, 1; *Missouri*, 3; *Kansas*, 1; *South and West*, *Kentucky*, 1; *Tennessee*, 1; *Texas*, 1; *Utah*, 1; *California*, 38 (1,319).

Telephone and telegraph equipment: *Massachusetts*, 3; *Connecticut*, 1; *New York*, 16 (2,391); *New Jersey*, 18 (2,959); *Pennsylvania*, 2; *Ohio*, 5 (1,116); *Indiana*, 1; *Illinois*, 15 (38,980); *Michigan*, 4 (189); *Wisconsin*, 1; *Minnesota*, 3 (3,075); *Iowa*, 1; *Missouri*, 1; *Nebraska*, 2; *Maryland*, 1; *Georgia*, 1; *Tennessee*, 1; *Texas*, 3 (27); *Colorado*, 1; *Washington*, 1; *California*, 9 (192).

Communication equipment, n.e.c.: *New England*, *Massachusetts*, 9; *Connecticut*, 2; *Middle Atlantic*, *New York*, 30 (3,779); *Pennsylvania*, 5 (3,583); *East North Central*, *Ohio*, 7 (506); *Indiana*, 2; *Illinois*, 14 (1,007); *Michigan*, 1; *Wisconsin*, 1; *West North Central*, *Minnesota*, 3; *Iowa*, 2; *Missouri*, 4 (73); *South and West*, *District of Columbia*, 1; *Virginia*, 2; *Kentucky*, 1; *Louisiana*, 1; *California*, 10.

CENSUS OF MANUFACTURES: 1947

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

(Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS)

ITEM	Industry					ITEM	Industry				
	Radios and related products	Electronic tubes	Phonograph records	Telephone and telegraph equipment	Communication equipment, n.e.c.		Radios and related products	Electronic tubes	Phonograph records	Telephone and telegraph equipment	Communication equipment, n.e.c.
ALL ESTABLISHMENTS						ESTABLISHMENTS REPORTING DETAILED STATISTICS—Continued					
Number of establishments.....	857	51	111	90	101	Cost of materials, fuel, electricity, and contract work.....	(1)	\$35,539	\$38,951	\$304,765	\$22,825
All employees:						Materials, parts, containers, and supplies.....	(1)	32,238	37,838	282,030	22,135
Number (average for the year).....	178,595	27,703	10,045	76,072	10,976	Fuels, total.....	\$3,111	551	479	2,015	261
Salaries and wages, total.....	\$462,207	\$65,420	\$20,103	\$258,567	\$31,860	Bituminous coal.....	1,300	41	258	1,276	119
Production and related workers:						Anthracite.....	155	107	-----	376	11
Number (average for the year).....	142,478	22,571	8,246	53,630	7,781	Coke.....	2	-----	16	17	30
Man-hours, total..... thousands.....	280,163	43,662	17,595	108,687	15,381	Fuel oils.....	1,189	57	140	191	30
Wages, total.....	\$324,300	\$46,704	\$22,840	\$167,488	\$19,826	Gas.....	410	230	59	152	64
Value added by manufacture.....	\$773,233	\$94,040	\$75,660	\$384,417	\$46,767	Other fuels.....	55	66	-----	3	7
ESTABLISHMENTS REPORTING DETAILED STATISTICS						Purchased electric energy.....	5,068	1,214	600	1,310	362
Number of establishments.....	642	51	111	90	101	Contract and commission work.....	5,478	1,566	25	19,410	67
All employees:						Value of inventories:					
Number (average for the year).....	176,047	27,703	10,045	76,072	10,976	Beginning of year, total.....	\$328,483	\$28,848	\$9,989	\$189,647	\$24,835
Salaries and wages, total.....	\$458,747	\$65,420	\$20,103	\$258,567	\$31,860	Finished products.....	30,768	11,598	2,114	9,164	5,633
Production and related workers:						Materials, supplies, and work in process.....	297,715	17,250	7,875	180,483	19,202
Number (average for the year).....	140,928	22,571	8,246	53,630	7,781	End of year, total.....	313,943	30,439	11,881	192,429	28,147
Man-hours, total..... thousands.....	277,070	43,662	17,595	108,687	15,381	Finished products.....	60,376	16,209	4,437	8,608	6,983
Wages, total.....	\$321,317	\$46,704	\$22,840	\$167,488	\$19,826	Materials, supplies, and work in process.....	253,567	14,170	7,444	183,821	21,164
Value added by manufacture.....	\$767,748	\$94,040	\$75,660	\$384,417	\$46,767	Expenditures for plant and equipment:					
Number of employees for pay period ended nearest Oct. 15:						New plant and equipment.....	\$43,714	\$5,002	\$7,006	\$39,280	\$1,395
All employees.....	173,814	26,555	10,785	79,211	10,589	Construction and major alteration of fixed plants.....	20,406	230	3,012	4,565	461
Male.....	87,010	7,852	6,954	50,556	7,859	Buildings.....	17,894	220	2,791	4,034	431
Female.....	86,798	18,703	3,831	28,655	2,730	Other construction.....	2,512	19	221	531	30
Production and related workers.....	138,497	21,543	8,886	56,312	7,472	Machinery and equipment.....	23,308	5,363	3,994	34,715	934
Male.....	62,957	4,815	5,832	35,066	5,799	Production machinery and equipment.....	18,674	5,208	3,689	28,268	751
Female.....	75,540	16,728	3,054	21,246	1,673	Other machinery and equipment.....	4,634	155	305	6,467	183
Force-account construction workers, administrative, supervisory, sales, and all other.....	35,038	5,012	1,899	22,899	3,117	Used plant and equipment, and land.....	6,971	3,433	600	1,134	-----
Male.....	23,780	3,037	1,122	15,490	2,060	Number of highway-type motor vehicles owned or leased:					
Female.....	11,258	1,975	777	7,409	1,057	Trucks.....	569	65	34	88	61
All employees, number by month:						By manufacturer's rated capacity:					
January.....	193,636	31,687	9,554	80,663	11,813	Under 1 1/2 tons.....	230	20	16	25	29
February.....	193,374	31,618	9,989	81,908	11,786	1 1/2 tons.....	179	17	14	13	29
March.....	190,939	31,181	10,152	82,783	11,606	Over 1 1/2 tons and less than 3 1/2 tons.....	108	16	1	21	2
April.....	183,400	27,911	10,142	59,631	11,370	3 1/2 tons and less than 5 tons.....	3	9	1	2	1
May.....	175,576	25,922	9,982	59,729	11,030	5 tons and over.....	40	3	2	27	-----
June.....	168,287	26,319	9,705	79,400	10,819	By body type:					
July.....	160,068	25,288	9,463	75,069	10,486	Van.....	81	37	4	7	9
August.....	164,239	25,393	9,656	73,902	10,406	Stake or platform.....	166	12	8	20	17
September.....	167,235	25,826	10,209	77,749	10,433	Panel or light delivery.....	242	10	17	22	29
October.....	173,814	26,555	10,785	79,211	10,589	All other trucks.....	80	6	5	39	6
November.....	177,328	27,169	10,748	81,036	10,679	Truck tractors.....	30	2	1	1	-----
December.....	175,300	27,585	10,061	81,793	10,603	Trailers and semitrailers.....	48	2	1	1	-----

1 Omitted because of duplication between cost of materials and value of products shipped. See text on industry.

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A ^d appears in the column where the figure has been omitted and the combined figure is printed in italics]

INDUSTRY AND ITEM	Total, all establishments	Establishments with an average of—									
		1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees	500-999 employees	1,000-2,499 employees	2,500 employees and over
Radios and related products:											
Number of establishments.....	857	160	109	107	132	96	108	58	43	32	12
Number of employees (average for the year).....	178,595	366	729	1,463	4,269	6,621	17,607	20,983	30,549	48,547	47,461
Value added by manufacture.....	\$773,233	\$1,479	\$3,148	\$5,212	\$15,393	\$24,612	\$63,499	\$84,110	\$121,265	\$236,457	\$218,058
Electronic tubes:											
Number of establishments.....	51	1	3	3	7	5	5	9	11	6	1
Number of employees (average for the year).....	27,703	(^d)	26	37	215	335	841	3,855	7,920	14,474	(^d)
Value added by manufacture.....	\$94,040	(^d)	\$80	\$158	\$604	\$1,201	\$2,225	\$12,307	\$29,348	\$43,117	(^d)
Phonograph records:											
Number of establishments.....	111	29	19	21	13	11	8	5	3	2	
Number of employees (average for the year).....	10,045	71	133	276	386	755	1,494	(^d)	(^d)	6,281	
Value added by manufacture.....	\$75,660	\$449	\$764	\$1,413	\$2,076	\$3,883	\$14,725	(^d)	(^d)	\$52,350	
Telephone and telegraph equipment:											
Number of establishments.....	90	5	12	20	9	8	13	7	3	6	7
Number of employees (average for the year).....	76,072	6	90	273	268	512	(^d)	(^d)	(^d)	(^d)	74,823
Value added by manufacture.....	\$384,417	\$35	\$525	\$1,557	\$1,032	\$2,394	(^d)	(^d)	(^d)	(^d)	\$375,874
Communication equipment, n.e.c.:											
Number of establishments.....	101	27	20	13	12	15	4	8		1	1
Number of employees (average for the year).....	10,976	57	124	187	401	1,124	693	(^d)	(^d)	(^d)	8,390
Value added by manufacture.....	\$46,767	\$202	\$380	\$638	\$2,104	\$4,924	\$2,878	(^d)	(^d)	(^d)	\$35,641

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947

[The first column shows the total value of shipments of the specified industry, divided among: (A) products classified in (primary to) the industry, (B) products classified in other industries (secondary to the specified industry), and (C) miscellaneous receipts. The second column shows the value of shipments of the primary products of the specified industry reported by establishments in other industries. The third column shows the total value of shipments of the primary products of the specified industry by all reporting manufacturers]

[Money figures in thousands of dollars]

RADIOS AND RELATED PRODUCTS INDUSTRY	Shipped by—			ELECTRONIC TUBES INDUSTRY	Shipped by—		
	Radios and related products industry	Other industries	All industries		Electronic tubes industry	Other industries	All industries
Total shipments by the industry.....	(¹)			Total shipments by the industry.....	\$124,518		
A. Radios and related products.....	(¹)	(¹)	(¹)	A. Electronic tubes, except X-ray tubes.....	116,460	\$5,634	\$122,124
Household radio receivers, television sets, radio-phonographs, phonographs, and record players.....	\$804,594	\$5,472	\$810,066	Radio receiving-type tubes.....	92,827	1,105	93,932
Commercial radio communications, radio navigation aids, and broadcast equipment.....	215,982	9,280	225,262	Transmitting and industrial type tubes (except X-ray tubes).....	21,315	4,006	25,321
Electronic type components for communications and industrial electronic controls.....	314,017	34,899	348,916	Electronic tubes, except X-ray tubes, not specified by type.....	2,348	523	2,871
Recorders, amplifiers, audio equipment, and recording magnetic wire.....	29,087	2,797	31,884	B. Secondary products.....	7,224		
Phonograph needles and cutting styl.....	(^d)	(^d)	4,908	Electronic type components for communications and industrial electronic controls.....	4,304		
Radios and related products, not specified by type.....	(^d)	(^d)	42,595	Other secondary products.....	2,920		
B. Secondary products.....	101,174			C. Miscellaneous receipts.....	804		
Electrical test equipment.....	6,303						
Specialty transformers.....	3,450			PHONOGRAPH RECORDS INDUSTRY			
High frequency induction and dielectric heating apparatus.....	2,411			Total shipments by the industry.....	\$110,184		
Capacitors for industrial use.....	6,231			A. Phonograph records.....	104,695	\$1,130	\$105,825
Motor vehicle parts and accessories.....	3,162			Phonograph records.....	100,835	1,130	102,015
Other secondary products, including job stampings, resistance welders and parts, electrical appliances, electronic tubes, etc.....	79,617			Recording blanks (disc and cylinder).....	3,152		3,152
C. Miscellaneous receipts.....	26,181			Phonograph records and blanks, not specified by type.....	658		658
Contract and commission work.....	9,866			B. Secondary products (including record albums, shellac biscuits, record players, etc.).....	4,838		
Repair work.....	2,684			C. Miscellaneous receipts.....	651		
Scrap and salable refuse.....	1,919						
Nonmanufacturing activities.....	11,712			TELEPHONE AND TELEGRAPH EQUIPMENT INDUSTRY			
				Total shipments by the industry.....	\$689,182		
Total shipments by the industry.....	\$69,592			A. Telephone and telegraph equipment.....	624,981	\$6,938	\$631,919
A. Communication equipment, n.e.c.:	58,718	\$12,006	\$70,724	B. Secondary products (including electrical test equipment, switchgear, radios and related products, etc.).....	37,751		
B. Secondary products including lighting fixtures, switchgear, transformers, etc.....	9,629			C. Miscellaneous receipts.....	26,450		
C. Miscellaneous receipts.....	945			Repair work.....	1,695		
				Scrap and salable refuse.....	5,278		
				Other activities.....	19,477		

^d Withheld to avoid disclosing figures for individual companies.

¹ Omitted because of duplication in value of products. See text on industry and GENERAL EXPLANATIONS—Duplication in cost of materials and value of products.

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939
 [Money figures in thousands of dollars]

PRODUCT	1947			1939	
	Total shipments and interplant transfers		Production (quantity)	Total production for sale and interplant transfer	
	Quantity	Value f.o.b. plant		Quantity	Value f.o.b. plant
	(M units)		(M units)	(M units)	
Household radio receivers, television sets, radio-phonographs, phonographs, and record players		\$810,066			\$186,404
Home radio receivers:					
Socket powered:					
Amplitude modulated (AM):					
Table models	10,297	104,321	10,611	0,891	95,760
Console models	113	0,080	152		
Amplitude modulated-frequency modulated (AM-FM):					
Table models	219	9,820	236		
Console models	27	2,369	23		
Frequency modulated only (including FM converters)	75	2,078	85		
Battery powered, table and console models	549	12,058	558		
Portable radio receivers:				1,305	16,087
3 way (A.C., D.C., battery)	2,225	52,798	2,287		
Other portable radio receivers	562	7,874	615		
Automobile radios (broadcast receivers only)	3,428	102,560	3,472	1,583	27,444
Television sets ¹ :					
Table models	113	28,759	116	4	1,806
Radio console models, including direct viewing and projection types	40	21,279	n.a.		
Receiving set chassis, for sale separately:					
Sold to radio manufacturers	64	3,829	69	n.a.	6,608
Sold to others	36	1,887	41		
Radio-phonograph combinations, except television sets (including sets with built-in recorders):					
Table models, AM and AM-FM (including portable sets)	1,450	68,937	1,469	475	17,193
Console models:					
AM	1,083	105,390	1,130		
AM-FM	882	137,055	908		
Phonographs and record players:					
Mechanical reproduction phonographs (with spring or electric motor)	317	4,317	329	n.a.	1,077
Electrical phonographs:					
Coin operated	98	49,819	90	n.a.	19,065
Noncoin operated	345	0,795	346		
Record players, including record players with automatic record changing devices:					
Complete with case (plug-in or induction types only)	718	13,365	722	n.a.	1,774
For installation in combination sets	551	7,136	549		
Household radio receivers, television sets, radio-phonographs, phonographs, and record players, not specified by type		940			
	(Units)				
Commercial radio communications, radio navigation aids, and broadcast equipment		225,262			n.a.
Communications equipment (excluding broadcast equipment and home receivers):					
Transmitters (shipboard, aircraft, and other)		50,510			5,270
Receivers:					
Aircraft	7,935	2,752	n.a.		2,935
Other, including shipboard	114,205	16,689			
Transceivers:					
Airborne	18,826	7,811	n.a.		
Automobile	18,863	9,803			
Other, including shipboard	9,574	3,536			
Radio navigation aids:					
Radar equipment:					
Search and navigation:					
Airborne		25,255	n.a.		
Shipboard		43,817			
Other		4,438			
Fire control:					
Airborne		2,066	n.a.		
Shipboard and other		19,586			
Other, including sonar		7,461			
Broadcast equipment:					
AM transmitters		7,508	n.a.		950
FM transmitters		4,472			
Studio equipment (AM and FM only)	531	6,204			
Television equipment (including studio equipment, transmitters, antenna and associated relays, and STL with accompanying equipment)		7,195			n.a.
Other broadcast equipment		4,815			
Commercial radio communications, radio navigation aids, and broadcast equipment, not specified by type		1,344			
	(M units)				
Electronic type components for communications and industrial electronic controls¹		348,916			75,340
Fixed capacitors (excluding power capacitors):					
Paper capacitors	227,789	20,664	n.a.		(1)
Electrolytic capacitors	50,437	19,251			
Mica capacitors	72,469	5,410			
Ceramic capacitors	89,938	4,067			
Resistors:					
Fixed composition resistors	393,045	6,442	n.a.		(1)
Variable composition resistors	39,613	9,676			
Wire-wound resistors, two watts and below	34,635	2,444			
Fixed and variable wire-wound resistors, above two watts	15,298	2,930			
Variable tuning condensers	18,827	16,796	n.a.		6,069
Variable trimming condensers and condenser accessories		3,908			
Permeability tuning devices		5,094			
RF and IF coils and transformers (including antenna oscillators)	2,167	67,788			
Audio transformers and reactors	26,320	16,157			
Radio power transformers and radio reactors	10,207	20,984			
Tube sockets:					
Radio receiving type only	175,315	6,540			
All other (including transmitting and industrial electronic control types)	1,103	336			
Radio band-wave, tap, and similar switches		8,448			

See footnotes at end of table.

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939—Continued

PRODUCT	1947			1939	
	Total shipments and interplant transfers		Production (quantity)	Total production for sale and interplant transfer	
	Quantity	Value f.o.b. plant		Quantity	Value f.o.b. plant
	(M units)		(M units)	(M units)	
Electronic type components for communications and industrial electronic controls—Continued					
Loud speakers and parts:					
Loud speakers:					
Radio	22,312	\$34,317	n.a.	n.a.	\$9,818
All other speakers (including public address and intercommunication types)	1,409	7,234			
Loud speaker parts (except transmitters)		4,009			
Microphones (all types)	653	3,933	n.a.	n.a.	854
Phonograph and record player accessories and components (except records):					
Automatic record changing mechanisms (excluding phono-motor assemblies)	1,926	22,474	n.a.	n.a.	(4)
Phonograph cartridges and pick-ups	5,642	6,744			
Recorder mechanisms only (sold separately without built-in speakers, amplifiers, etc.)	77	1,614	n.a.	n.a.	(4)
Vibrators for radio power supplies (for automobile, marine, etc., installations)	5,853	5,786			
Other electronic components for communication such as phono-motor assemblies, chassis blanks, connectors, printed circuits, dial assemblies, piezo-electric crystals, crystal holders, crystal detectors, antenna insulators, H. F. wave guides, relays, etc.		74,914	n.a.	n.a.	n.a.
Electronic type components for communication and industrial electronic controls, not specified by type		12,364			
Recorders, amplifiers, audio equipment, and recording magnetic wire		31,884	n.a.	n.a.	n.a.
Recorders, complete units, excluding radio-phonograph combinations and recorder mechanisms, sold separately:					
Disc	39	3,240	n.a.	n.a.	n.a.
Wire and tape	70	6,270			
Amplifiers, complete units		7,032	n.a.	n.a.	n.a.
Other audio equipment, complete units (including audio equipment such as complete public address systems, slidefilm projection audio units, etc.) and recording magnetic wire		15,336			
Phonograph needles and cutting styl		4,908			605
Phonograph playback needles, steel	1,219,696	592	n.a.	n.a.	n.a.
Phonograph playback needles, precious metal or jeweled point	14,288	3,931			
Cutting styl, all types		121			
Phonograph needles and cutting styli, not specified by type		264			
Radios and related products (television equipment, radar and related detection apparatus, and phonographs), not specified by type		42,595			n.a.
Radio receiving type tubes (except ballast tubes, voltage regulators, and indicators)		93,932			32,947
Cathode ray tubes (television-receiver type)	267	7,137	309		
Other receiving-type tubes (including radio receiving rectifier tubes):					
Standard glass (including GT and GT/G) and lock-in type	128,732	49,621	136,950	109,521	32,947
Miniature glass	33,720	16,801	31,975		
Subminiature and acorn	3,180	2,756	3,085		
Other glass and all metal types	38,032	17,617	37,458		
Transmitting and industrial type tubes, except X-ray		25,321			5,116
High vacuum tubes (nonreceiving types):					
Rectifiers	144	718	189		
Triodes and multigridd tubes, external anode	52	4,126	42		
Gas or vapor tubes (including pool tubes):					
Rectifiers (excluding tungar and rectigon types)	184	945	229		
Grid, ignitor, etc. (control types)	424	3,190	423		
Cathode ray and camera pick-up tubes (excluding television receiver types)	38	1,057	41		(1)
Velocity modulated tubes, magnetrons, gaps, and TR boxes	39	4,610	37		
Miscellaneous types (including internal anode triodes and multigridd tubes, voltage regulators, ballast, photo, vacuum capacitors, vacuum switches, vacuum gauge tubes, etc.)	3,742	9,701	3,628		
Battery charger rectifying tubes (including tungar and rectigon types)	163	343	265		
Transmitting and industrial type tubes, not specified by type		631			
Electronic tubes, other than X-ray, not specified by type		2,871			
		102,015			19,762
Phonograph records					
Disc records, 78 r.p.m., not including electrical transcriptions:					
Discs, 10 inches and under	298,308	81,417	311,017	n.a.	15,980
Discs over 10 inches, except electrical transcriptions	33,784	15,987	38,896		
Electrical transcriptions, 33 1/3 r.p.m.	3,819	4,406	3,823	n.a.	2,024
Phonograph records, not specified by type		205			
Recording blanks, disc type and other (including magnetic disc)	5,993	3,152	6,093		1,758
Phonograph records and recording blanks, not specified by type		658			
		631,919			34,496
Telephone and telegraph equipment					
Telephone (wire) apparatus and equipment, including military:					
Telephone switchboards and switching equipment (central office and private branch exchange)	4,898	284,932			
Telephone instrument sets (including receivers, transmitters, and dials)		65,700			
Telephone (wire) apparatus and equipment (other than that covered by items above)		258,812	n.a.		n.a.
Telegraph apparatus and equipment (including military), including components, attachments, and accessories		21,012			
Telephone and telegraph equipment, not specified by type		1,463			
		70,724			20,030
Communication equipment, not elsewhere classified					
Intercommunication equipment, excluding intercommunicating equipment designed primarily for use in telephone and telegraph networks		9,966			n.a.
Electric alarm and signal systems and devices, other than railway		29,360			
Railway signals and attachments, electric		31,398			

n.a.—Not available.

¹ Includes television sets with audio limited to television band, television only (production line observation) sets, television-radio sets, and combination phonograph-television-radio sets.

² Includes television kits and facsimile sets.

³ Excludes capacitors for power factor correction and fluorescent tube ballasts.

⁴ Data not collected separately in 1939.

⁵ Includes railroad-highway grade crossing signals and safety control equipment.

CENSUS OF MANUFACTURES: 1947

TABLE 7.—SELECTED MATERIALS CONSUMED, BY KIND: 1947

[The table below summarizes the consumption of selected metal shapes by manufacturers during 1947. For each shape, manufacturing establishments were required to report consumption, in quantity and cost, provided that such usage during 1947 exceeded the following amounts: for iron castings, steel castings, each of six carbon steel shapes—50 short tons; for alloy steel bars and all other alloy steel—25 short tons; for stainless steel, brass and copper wire mill shapes, copper and brass castings, aluminum mill shapes and aluminum castings—10 short tons]

[Money figures in thousands of dollars]

METAL SHAPE	RADIOS AND RELATED PRODUCTS INDUSTRY			TELEPHONE AND TELEGRAPH EQUIPMENT INDUSTRY			COMMUNICATION EQUIPMENT, N.E.C., INDUSTRY		
	Establishments consuming more than specified quantities								
	Number	Short tons	Cost	Number	Short tons	Cost	Number	Short tons	Cost
Iron castings, rough and semifinished	(1)	1,030	\$372	6	2,667	\$496	8	1,262	\$495
Steel castings, rough and semifinished							(1)	(4)	(d)
Steel mill shapes and forms	n.a.	97,382	13,464	n.a.	59,957	7,903	n.a.	12,557	1,456
Carbon steel:									
Bars and bar shapes	18	4,738	582	14	11,071	1,099	(1)	5,812	547
Sheet and strip	90	79,784	9,680	19	33,891	4,541	11	4,453	496
Structural shapes				(1)	6,698	550	(1)		
Plates				(1)	581	53	(1)		
Wire	(1)	278	66	5	956	124		1,628	160
All other mill shapes and forms	(1)	1,140	383	5	3,195	601	(1)		
Alloy steel, except stainless:									
Bars and bar shapes				(1)	821	291	(1)		
All other mill shapes and forms	13	11,268	2,552	5	2,617	499		664	263
Stainless steel	7	174	201	5	127	145	(1)		
Copper and copper-base alloy:									
Brass and wire mill shapes and forms	82	12,875	10,787	21	12,552	7,895	13	1,219	1,004
Castings, rough and semifinished	(1)	846	1,004	(1)	38	53	(1)	61	41
Aluminum:									
Aluminum mill shapes	43	4,005	2,628	15	1,246	1,072			
Castings, rough and semifinished	8	956	1,269	5	205	458	7	340	259

^d Withheld to avoid disclosing figures for individual companies.

n.a.—Not available.

¹ Less than 5 establishments.

MISCELLANEOUS ELECTRICAL PRODUCTS

This report shows 1947 Census of Manufactures statistics for establishments engaged primarily in the production of storage batteries, primary batteries, X-ray and therapeutic apparatus, and miscellaneous electrical products. These establishments have been classified in four industries described separately below.

Storage Batteries (Standard Industrial Classification No. 3691.)—This industry comprises establishments primarily engaged in manufacturing storage batteries. The more important types of storage batteries are the starting, lighting, and ignition (SLI) type; motive power type; farm and emergency lighting batteries; and communication (including radio, telephone, etc.) batteries. Although separate data were collected for aircraft and marine type starting, lighting, and ignition batteries, these statistics cannot be shown separately without disclosing the operations of individual companies. The same is true of the mining and other locomotive motive power type batteries.

In previous censuses, storage batteries were not shown separately as an industry. In 1939 they were included in the same industry as primary batteries. Reports for 1939 have been retabulated on a comparative basis with 1947; data for earlier years, however, are not available.

Primary Batteries (Dry and Wet) (Standard Industrial Classification No. 3692.)—This industry comprises establishments primarily engaged in manufacturing primary batteries, both dry and wet types. In previous censuses, primary batteries were not shown separately as an industry. In 1939 they were included in the same industry as storage batteries. Reports for 1939 have been retabulated on a comparative basis with 1947; data for earlier years, however, are not available.

X-Ray and Therapeutic Apparatus (Part of Industry No. 3693.)—This industry comprises establishments primarily en-

gaged in manufacturing electrotherapeutic and electromedical apparatus, X-ray apparatus and tubes, and lamps for infra-red and ultra-violet radiation. According to the Standard Industrial Classification, this industry also includes nonradio electronic tubes. However, the 1947 census includes all tubes except X-ray in Industry 3662 because the producers of the electronic tubes other than X-ray have indicated that no exact separation could be made between nonradio electronic tubes except X-ray and the radio transmitting type tubes. Reports for 1939 have been retabulated on a comparative basis with 1947; data for years earlier than 1937 are not available.

Electrical Products, Not Elsewhere Classified (Part of Industry 3699.)—This industry comprises establishments primarily engaged in manufacturing electrical products, not elsewhere classified, such as supports, filaments, and lead-in wires for electric lamps, electrical hearing aids, and Christmas tree lighting outfits. According to the Standard Industrial Classification, this industry also includes extension cords. However, the 1947 census includes extension cords in Industry 3631, Insulated Wire and Cable, because several producers of insulated wire and cable produce considerable quantities of extension cords.

The general statistics for 1947 for this industry are not comparable with those for 1939 since some of the commodities which were classified in this industry in 1939 have been reclassified into other industries in 1947. Examples of such commodities are capacitors, network protectors, automotive switches and voltage regulators, electrical aircraft parts, and klaxon horns. The 1939 statistics for the Electrical Products, Not Elsewhere Classified, Industry have not been retabulated on a comparative basis with certain exceptions. The main exception is the retabulation of establishments producing automotive electrical equipment, such as switches and voltage regulators, into Industry 3641 because of their significant effect on the statistics for that industry.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work	Value of products shipped ²
		Number (average for the year) ³	Salaries and wages, total	Number (average for the year) ⁴	Wages, total			
Storage batteries:								
1947	246	16,570	\$48,379	13,632	\$38,257	\$114,246	\$183,408	\$297,654
1939 ⁵	190	n.a.	n.a.	9,664	12,743	36,841	48,932	84,773
Primary batteries (dry and wet):								
1947	38	10,261	24,463	9,181	20,656	45,275	39,770	85,045
1939 ⁵	31	n.a.	n.a.	5,470	6,466	18,565	14,245	32,810
X-ray and therapeutic apparatus:								
1947	116	7,678	23,217	5,621	15,354	38,635	20,473	59,518
1939 ⁴	77	n.a.	n.a.	1,920	2,708	12,057	5,690	17,747
1937	46	n.a.	n.a.	1,936	2,760	11,912	5,236	17,148
Electrical products, n. e. c.:								
1947	127	8,692	20,564	7,448	15,460	48,786	42,380	91,166
1939 ⁶	166	n.a.	n.a.	4,872	5,696	18,892	11,886	30,778

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture. For a portion of Industry 3693, see GENERAL EXPLANATIONS—Method of calculating value added by manufacture for selected industries in 1947.

² For 1947, value of products shipped; for all other years, value of products made. See GENERAL EXPLANATIONS—Value of products shipped.

³ The 1939 returns for the "Batteries, storage and primary (dry and wet)" industry have been retabulated to provide figures comparable with those for 1947. Separate data for storage batteries and primary batteries are not available for years prior to 1939; in 1937 they were combined in a single industry.

⁴ The 1939 returns for the "X-ray and Therapeutic Apparatus" industry have been retabulated to provide figures comparable with those for 1947. The value added in 1939 for this industry, prior to retabulation, was \$12.2 million. Separate figures for this industry are not available for years prior to 1937; in earlier years the data were included in the "Electrical Machinery, Apparatus, and Supplies" industry.

⁵ The general statistics for 1939 and earlier years covering "Electrical Products, Not Elsewhere Classified" are not comparable with those for 1947. See section of text on "Electrical Products, Not Elsewhere Classified" for further explanation. The 1939 data for this industry were retabulated to eliminate some reports which, according to the present Standard Industrial Classification Manual, should be reclassified in other industries.

CENSUS OF MANUFACTURES: 1947

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947

[Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Storage batteries, total ¹	246	16,570	\$48,379	13,632	29,541	\$38,257	\$114,246	\$183,408	\$297,654	\$7,910
New England.....	15	371	981	290	593	708	2,201	4,283	6,484	263
Massachusetts.....	11	344	921	268	550	663	2,083	4,105	6,188	257
Middle Atlantic.....	37	7,685	22,317	6,087	13,469	17,692	45,826	54,667	100,493	1,721
Pennsylvania.....	16	4,425	11,807	3,471	7,022	9,702	19,778	23,845	48,623	986
East North Central.....	51	4,354	13,223	3,732	7,954	10,766	32,494	62,601	95,185	3,269
Ohio.....	11	1,526	4,809	1,306	2,879	4,023	12,562	23,482	36,044	401
Illinois.....	21	1,351	2,028	519	1,094	1,362	5,851	9,611	15,462	1,792
West North Central.....	28	1,010	2,658	854	1,667	2,092	8,350	13,847	22,197	639
Minnesota.....	8	415	1,158	361	652	898	3,494	5,015	8,509	102
South.....	63	1,799	4,592	1,638	3,261	3,582	14,097	26,568	40,665	1,421
Tennessee.....	7	330	873	254	492	535	2,151	4,048	6,199	935
West.....	52	1,351	4,008	1,131	2,597	3,517	11,278	21,352	32,630	697
Oregon.....	7	130	411	110	237	321	1,101	2,193	3,294	124
California.....	40	1,120	3,842	941	2,166	2,938	9,435	18,045	27,480	520
Primary batteries (dry and wet), total ¹	38	10,261	24,463	9,181	18,407	20,656	45,275	39,770	85,045	1,327
Northeast.....	11	2,659	6,763	2,251	4,791	5,252	10,616	8,396	19,012	173
New York.....	5	675	1,521	602	1,211	1,263	2,877	1,892	4,769	23
Other Divisions.....	27	7,602	17,700	6,930	13,616	15,404	34,659	31,374	66,033	1,154
Wisconsin.....	7	1,539	3,289	1,448	2,825	2,962	6,900	6,434	13,343	69
X-ray and therapeutic apparatus, total ¹	116	7,678	23,217	5,621	11,762	15,354	38,635	20,473	59,518	2,271
Northeast.....	40	1,444	4,588	1,098	2,340	3,028	6,693	3,695	10,388	872
North Central.....	47	4,547	13,362	3,472	7,154	9,280	25,470	11,123	37,012	893
Illinois.....	24	2,495	7,401	1,850	3,847	5,079	18,348	5,930	24,694	179
Wisconsin.....	7	906	3,032	749	1,576	2,087	1,881	2,196	4,077	(d)
South and West.....	29	1,687	5,267	1,051	2,268	3,046	6,463	5,655	12,118	506
Electrical products, n. e. c., total ¹	127	8,692	20,564	7,448	14,499	15,460	48,786	42,380	91,166	2,500
Northeast.....	55	4,518	10,037	4,088	7,707	8,059	23,848	27,178	51,026	1,491
New York.....	29	1,998	4,430	1,804	3,417	3,466	10,383	13,487	23,870	600
New Jersey.....	11	545	1,465	468	950	1,196	2,906	4,002	6,808	535
North Central.....	60	4,025	10,208	3,226	6,528	7,151	24,235	14,569	38,804	1,005
Missouri.....	4	413	739	379	765	631	1,616	1,455	3,101	102
South and West.....	12	149	319	131	264	250	703	633	1,336	4

^d Withheld to avoid disclosing figures for individual companies.¹ For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.Storage batteries: *New England*, Rhode Island, 1; Connecticut, 3; *Middle Atlantic*, New York, 10 (1,028); New Jersey, 11 (2,232); *East North Central*, Indiana, 6 (1,524); Michigan, 8 (72); Wisconsin, 5 (585); *West North Central*, Iowa, 5 (120); Missouri, 9 (166); North Dakota, 1; Nebraska, 2; Kansas, 3 (212); *South*, District of Columbia, 1; West Virginia, 3 (15); North Carolina, 1; Georgia, 5 (422); Florida, 15 (90); Kentucky, 6 (61); Alabama, 1; Louisiana, 3 (34); Oklahoma, 2; Texas, 19 (686); *West*, Colorado, 3; Washington, 2.Primary batteries (dry and wet): *Northeast*, Rhode Island, 1; Connecticut, 2; New Jersey, 2; Pennsylvania, 1; *Other Divisions*, Ohio, 5 (3,453); Illinois, 8 (680); Minnesota, 1; Iowa, 2; Maryland, 1; Virginia, 1; North Carolina, 1; California, 1.X-ray and therapeutic apparatus: *Northeast*, Massachusetts, 4 (42); Connecticut, 1; New York, 27 (496); New Jersey, 4; Pennsylvania, 4 (116); *North Central*, Ohio, 7 (962); Indiana, 2; Michigan, 3 (21); Minnesota, 1; Missouri, 3 (60); *South and West*, Maryland, 1; Georgia, 1; Florida, 1; Kentucky, 1; Washington, 1; California, 24 (127).Electrical products, n. e. c.: *Northeast*, Maine, 1; Massachusetts, 4 (234); Rhode Island, 3 (1,552); Connecticut, 3 (88); Pennsylvania, 4; *North Central*, Ohio, 16 (1,446); Indiana, 5 (908); Illinois, 21 (763); Michigan, 1; Wisconsin, 8; Minnesota, 4 (291); Kansas, 1; *South and West*, North Carolina, 1; Texas, 3; California, 8 (72).

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TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS]

ITEM	Industry				ITEM	Industry			
	Storage batteries	Primary batteries (dry and wet)	X-ray and therapeutic apparatus	Electrical products, n. e. c.		Storage batteries	Primary batteries (dry and wet)	X-ray and therapeutic apparatus	Electrical products, n. e. c.
ALL ESTABLISHMENTS					ESTABLISHMENTS REPORTING DETAILED STATISTICS—Continued				
Number of establishments	246	38	116	127	Cost of materials, fuel, electricity, and contract work	\$183,408	\$39,770	\$20,035	\$41,809
All employees:					Materials, parts, containers, and supplies	179,756	38,915	19,039	40,522
Number (average for the year)	16,870	10,261	7,678	8,692	Fuels, total	1,067	387	184	295
Salaries and wages, total	\$48,379	\$24,463	\$23,217	\$20,564	Bituminous coal	319	258	79	98
Production and related workers:					Anthracite	97	4	1	10
Number (average for the year)	13,632	9,181	5,621	7,448	Coke	22			
Man-hours, total, thousands	29,541	18,407	11,762	14,499	Fuel oils	175	13	55	81
Wages, total	\$38,257	\$20,656	\$15,354	\$15,460	Gas	393	107	44	99
Value added by manufacture	\$114,246	\$45,275	\$38,635	\$48,786	Other fuels	61	5	5	9
ESTABLISHMENTS REPORTING DETAILED STATISTICS					Purchased electric energy	2,535	316	353	556
Number of establishments	246	38	75	99	Contract and commission work	50	152	409	436
All employees:					Value of inventories:				
Number (average for the year)	16,870	10,261	7,525	8,543	Beginning of year, total	\$29,031	\$14,274	\$15,755	\$11,466
Salaries and wages, total	\$48,379	\$24,463	\$22,844	\$20,313	Finished products	6,695	3,603	4,605	3,123
Production and related workers:					Materials, supplies, and work in process	22,335	10,671	11,150	8,343
Number (average for the year)	13,632	9,181	5,468	7,304	End of year, total	43,934	15,602	17,921	13,586
Man-hours, total, thousands	29,541	18,407	11,472	14,218	Finished products	9,695	4,372	5,295	4,055
Wages, total	\$38,257	\$20,656	\$14,981	\$15,225	Materials, supplies, and work in process	34,239	11,230	12,626	9,531
Value added by manufacture	\$114,246	\$45,275	\$38,129	\$48,388	Expenditures for plant and equipment:				
Number of employees for pay period ended nearest Oct. 15:					New plant and equipment	\$7,910	\$1,327	\$2,271	\$2,500
All employees	17,598	10,734	7,131	9,796	Construction and major alteration of fixed plants	2,528	80	758	683
Male	15,552	5,215	5,618	4,388	Buildings	2,375	73	706	666
Female	2,046	5,519	1,513	5,408	Other construction	153	7	52	17
Production and related workers	14,494	9,598	4,995	8,491	Machinery and equipment	5,382	1,247	1,513	1,817
Male	13,523	4,443	4,282	3,591	Production machinery and equipment	4,927	1,161	1,398	1,580
Female	961	5,155	713	4,900	Other machinery and equipment	455	86	115	237
Force-account construction workers					Used plant and equipment, and land	928		59	98
Administrative, supervisory, sales, and all other	3,114	1,136	2,136	1,305	Number of highway-type motor vehicles owned or leased:				
Male	2,029	772	1,336	797	Trucks	338	46	20	35
Female	1,085	364	800	508	By manufacturer's rated capacity:				
All employees, number by month:					Under 1 1/2 tons	163	14	15	15
January	15,327	11,156	8,235	7,681	1 1/2 tons	133	10	4	15
February	15,965	10,844	8,111	7,733	Over 1 1/2 tons and less than 3 1/2 tons	30	11	1	1
March	16,115	11,012	8,085	7,776	3 1/2 tons and less than 5 tons	4	6		2
April	16,244	10,433	7,949	7,741	5 tons and over	8	5		2
May	15,994	7,952	7,845	8,046	By body type:				
June	16,015	9,483	7,682	8,446	Van	20		2	4
July	15,709	9,293	7,557	8,652	Stake or platform	65	29	5	12
August	16,193	9,895	7,371	8,912	Panel or light delivery	183	12	10	10
September	16,755	10,411	7,215	9,158	All other trucks	70	5	3	9
October	17,598	10,734	7,131	9,796	Truck tractors	22	1		10
November	18,353	10,971	6,649	9,723	Trailers and semitrailers	23	4		10
December	18,362	10,987	6,393	8,814					

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A ^d appears in the column where the figure has been omitted and the combined figure is printed in italics]

INDUSTRY AND ITEM	Total, all establishments	Establishments with an average of—									
		1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees	500-999 employees	1,000-2,499 employees	2,500 employees and over
Storage batteries:											
Number of establishments	246	65	44	40	43	21	20	7	2	4	
Number of employees (average for the year)	16,870	166	272	544	1,477	1,396	2,994	4,158	(^d)	5,563	
Value added by manufacture	\$114,246	\$326	\$1,288	\$3,415	\$11,721	\$10,453	\$25,460	\$27,618	(^d)	\$33,465	
Primary batteries (dry and wet):											
Number of establishments	38	4	3	2	9	2	5	6	6	1	
Number of employees (average for the year)	10,261	11	(^d)	43	431	(^d)	811	2,514	6,151	(^d)	
Value added by manufacture	\$45,275	\$43	(^d)	\$150	\$1,333	(^d)	\$4,666	\$11,029	\$23,054	(^d)	
X-ray and therapeutic apparatus:											
Number of establishments	116	42	32	12	8	7	8	2	4	1	
Number of employees (average for the year)	7,678	113	213	159	250	527	1,870	(^d)	4,516	(^d)	
Value added by manufacture	\$38,635	\$509	\$1,210	\$641	\$1,064	\$3,204	\$11,115	(^d)	\$20,894	(^d)	
Electrical products, n. e. c.:											
Number of establishments	127	28	14	24	28	14	7	9	3		
Number of employees (average for the year)	8,692	65	86	354	824	998	1,193	5,178	(^d)		
Value added by manufacture	\$48,786	\$273	\$372	\$1,139	\$3,915	\$5,664	\$6,638	\$30,785	(^d)		

CENSUS OF MANUFACTURES: 1947

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947

[The first column shows the total value of shipments of the specified industry, divided among: (A) products classified in (primary to) the industry, (B) products classified in other industries (secondary to the specified industry), and (C) miscellaneous receipts. The second column shows the value of shipments of the primary products of the specified industry reported by establishments in other industries. The third column shows the total value of shipments of the primary products of the specified industry by all reporting manufacturers]

[Money figures in thousands of dollars]

STORAGE BATTERIES INDUSTRY	Shipped by—			PRIMARY BATTERIES INDUSTRY	Shipped by—		
	Storage batteries industry	Other industries	All industries		Primary batteries industry	Other industries	All industries
Total shipments by the industry	\$297,654			Total shipments by the industry	\$85,045		
A. Storage batteries.....	293,358		\$293,358	A. Primary batteries.....	78,094	(2)	\$78,094
Starting, lighting, and ignition (S. L. I.) storage batteries.....	249,328	(1)	249,328	B. Secondary products.....	7,929		
Storage batteries, other than S. L. I. Parts and supplies.....	38,444		38,444	Hand portable electric lighting equipment (flashlight cases).....	7,349		
B. Secondary products.....	5,586		5,586	Other secondary products.....	580		
C. Miscellaneous receipts.....	3,631			C. Miscellaneous receipts.....	(2)		
	(1)						

X-RAY AND THERAPEUTIC APPARATUS INDUSTRY	Shipped by—			ELECTRICAL PRODUCTS, N. E. C., INDUSTRY	Shipped by—		
	X-ray and therapeutic apparatus industry	Other industries	All industries		Electrical products, n. e. c., industries	Other industries	All industries
Total shipments by the industry	\$59,518			Total shipments by the industry	\$91,166		
A. X-ray and therapeutic apparatus.....	54,813	\$4,055	\$58,868	A. Primary products of this industry.....	71,802	\$13,096	\$84,898
X-ray equipment and x-ray tubes.....	47,922	1,637	49,559	Electrical hearing aids.....	12,036	3,032	16,868
Electro-therapeutic apparatus.....	5,356	2,246	7,601	Lamp components.....			27,316
X-ray and therapeutic apparatus, not specified by type.....	1,535	173	1,708	Electrical products, n. e. c.....	58,866	0,164	40,714
B. Secondary products.....	3,323			B. Secondary products.....	16,799		
C. Miscellaneous receipts.....	1,377			Electronic type components for com- munications and industrial elec- tronic controls.....	3,185		
Nonmanufacturing activities.....	1,064			Other secondary products.....	13,614		
Other receipts.....	313			C. Miscellaneous receipts.....	2,565		
				Nonmanufacturing activities.....	2,180		
				Other receipts.....	386		

¹ A very small amount of storage batteries (less than 1 percent of the total) was made by establishments classified outside the storage battery industry. Likewise, the "other receipts" of establishments in the storage battery industry constitute a negligible proportion of the total value of the storage battery industry. The exact data are withheld to avoid disclosing figures for individual companies.

² A very small amount of primary batteries (less than 2 percent of the total) was made by establishments classified outside the primary battery industry. Likewise, the "other receipts" of establishments in the primary battery industry constitute a negligible proportion of the total value of the primary battery industry. The exact data are withheld to avoid disclosing figures for individual companies.

MISCELLANEOUS ELECTRICAL PRODUCTS

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TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	1947 ¹			1939 ¹
	Total shipments and interplant transfers			Total production for sale and interplant transfer (value f.o.b. plant)
	Number of cells	Number of units	Value f.o.b. plant	
Primary batteries, total	(Thousands)	(Thousands)		
General purpose (6 inch), 1.5 volt dry cells, single and multiple unit	15,304	13,928	\$78,094	\$30,095
Flashlight:			5,208	2,527
Standard				
Medium	385,775	385,418	18,664	9,903
Penlight	21,329	21,327	953	
Railroad lantern type	52,059	52,059	1,764	
Hearing aid (A and B)	19,588	14,516	2,324	
A, B, and C (other than hearing aid):	125,425	17,715	5,871	
Portable radio type				
Farm radio type	427,615	13,599	14,041	13,470
Other dry cell primary batteries ²	369,195	6,030	18,309	
Wet cell primary batteries			5,939	
Parts and supplies for primary batteries, for sale separately	1,545	1,545	3,381	3,305
			1,640	890
Storage batteries, total				
Starting, lighting, and ignition (S. L. I.) storage batteries ³			293,358	81,122
Automotive type ⁴			249,328	64,818
Heavy duty transport motor coach and bus, and diesel starting batteries (except marine)		31,248	231,683	
Other S. L. I. (including aircraft and marine)		406	10,053	(⁵)
Storage batteries, other than S. L. I. type			7,592	
Industrial truck motive power type			38,444	13,307
Motive power, except industrial truck type (including mining and other locomotive)			9,663	
Farm and emergency lighting			8,077	(⁵)
Other, including communication			2,119	
			18,585	
Parts and supplies for storage batteries, for sale separately			5,586	2,937
X-ray equipment and X-ray tubes, total		(Units)	49,559	12,619
Medical X-ray equipment:				
Complete X-ray units		12,301	26,782	7,826
Components and assemblies (except tubes), sold separately			6,788	
Complete dental X-ray units		3,546	1,907	1,515
Complete industrial X-ray units		617	684	730
X-ray accessories and dental and industrial X-ray components and assemblies (except tubes), sold separately			2,668	(⁷)
X-ray rectifying valves		21,314	1,351	
X-ray tubes, other than rectifying valves		41,372	6,736	2,113
Miscellaneous X-ray equipment and collateral devices			2,043	(⁷)
Electrotherapeutic apparatus, total			7,601	5,823
Ultra-violet health lamp fixtures			2,508	1,003
Infra-red health lamp fixtures			860	232
Electro-diathermic and similar apparatus			3,995	3,958
Electrotherapeutic apparatus, not specified by kind			238	
X-ray and therapeutic apparatus, not specified by type or kind			1,708	
Lamp components ⁸			27,316	n.a.
Electric hearing aids		(Thousands)	270	9,671
Christmas tree lighting outfits ¹⁰		16,940	24,452	n.a.
Other electrical products			16,262	n.a.

n.a.—Not available.

¹ For 1947, value of shipments; for 1939, value of production. In both 1947 and 1939, there was no appreciable difference between production and shipments of these products.

² Includes A, B, and C type batteries (other than portable and farm radio) which cannot be shown separately without disclosing the operations of individual companies.

³ Includes storage batteries for tractor, aircraft, locomotive, and marine uses in addition to automobile, truck, and bus.

⁴ For \$63.6 million of this total, the number of batteries produced was 17.4 million.

⁵ All types designed primarily to fit passenger cars, regardless of application. Many of these batteries are used in commercial vehicles and light trucks.

⁶ No comparable data available.

⁷ X-ray accessories and miscellaneous X-ray equipment were not listed separately in 1939 and are included in the values shown for medical, dental, and industrial X-ray equipment.

⁸ Includes lamp bases, supports, lead-ins, and filaments; and cold cathode fluorescent lamp electrodes; does not include lamp bulb blanks.

⁹ Includes a small value of nonelectric hearing aids. These data were included in the 1939 census as part of the industry "Surgical Supplies and Equipment, Not Elsewhere Classified; Orthopedic Appliances."

¹⁰ Value includes value of bulbs made or purchased and assembled into Christmas tree lighting outfits.

Major Group 37.—TRANSPORTATION EQUIPMENT

This major group includes establishments engaged in manufacturing equipment for transportation of passengers and cargo by land, air, and water. Important products produced by establishments classified in this major group include motor vehicles, aircraft, ships, boats, railroad equipment, and miscellaneous transportation equipment such as motorcycles, bicycles, and horse-drawn vehicles.

GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

CENSUS YEAR	Number of establishments	All employees ¹		Production workers		Value added by manufacture ²
		Number (average for the year)	Wages and salaries, total	Number (average for the year)	Wages, total	
1947.....	3,711	1,181,680	\$3,710,583	987,142	\$2,030,815	\$5,860,196
1939 ³	2,012	n.a.	n.a.	544,553	867,024	1,772,573
1937 ⁴	1,958	n.a.	n.a.	602,218	1,028,650	1,986,497

n.a.—Not available.

¹ The figures for 1947 and 1939 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for 1937 is not known. See GENERAL EXPLANATIONS—Manufacturing employees—Classifications used.

² Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

³ The figures for 1939, but not for 1937, have been revised for comparability with the 1947 figures. The principal revision is the exclusion of data for railroad repair shops reclassified as nonmanufacturing establishments. Value added by manufacture for 1939 on a basis strictly comparable with 1937 was \$1,794 million.

⁴ The figures for 1935 and earlier years are not sufficiently comparable with those for later years to be shown in this table because the earlier figures exclude data for establishments primarily engaged in manufacture of aircraft engines and for a number of large establishments classified prior to 1937 in other industry groups.

MOTOR VEHICLES AND EQUIPMENT

This report shows 1947 Census of Manufactures statistics for establishments engaged primarily in the production of motor vehicles, bodies and parts; truck and bus bodies; truck trailers; and automobile trailers. These establishments have been classified in four industries described separately below.

Motor Vehicles and Parts (*Includes Standard Industrial Classification Industries: Motor Vehicles, 3711; Passenger-Car Bodies, 3712; and Motor Vehicle Parts and Accessories, 3714.*)—This industry comprises establishments primarily engaged in manufacturing or assembling complete passenger automobiles, trucks, commercial cars and busses (except trackless trolleys, Industry 3742), and special purpose motor vehicles such as ambulances, fire engines, taxicabs, scout cars, personnel carriers, and amphibian motor vehicles. Also included are establishments primarily engaged in manufacturing motor vehicle parts and accessories. Included are such parts as passenger-car bodies, motor vehicle engines and parts, brakes and parts, clutches, axles, radiators, differentials, transmissions, wheels and frames, and automobile accessories, not elsewhere classified, such as windshield wipers, and oil filters and strainers. Establishments primarily engaged in manufacturing motorcycles are classified in Industry 3751, wheel-type and track-laying tractors in Industry 3521, tires and tubes in Industry 3011, automobile glass in Major Group 32, motor vehicle hardware in Industry 3429, head lamps in Industry 3471, ignition systems in Industry 3641, and storage batteries in Industry 3691.

In the 1947 Census of Manufactures, the three Standard Industrial Classification industries have been combined because of a major problem of defining the reporting unit in terms of these industries. This difficulty arises from the fact that many large establishments have integrated operations which include the production of parts or bodies and the assembly of complete vehicles at the same location.

It was also found necessary to depart from the Standard Industrial Classification definition of Industry 3713, which as stated includes all establishments building truck and bus bodies. The integrated manufacturers of trucks and busses would have encountered considerable difficulty in reporting these operations separately, and they were included in the industry for motor vehicles and parts. Likewise, establishments making truck and bus bodies for sale to motor vehicle companies were included in the Motor Vehicles and Parts Industry since the characteristics of such establishments are similar to the truck and bus body plants of motor vehicle companies. Industry 3713, as defined for the 1947 census, includes establishments manufacturing truck and bus bodies for sale to other than motor vehicle companies, and establishments producing motor vehicles from purchased chassis. The 1939 reporting form requested only a single figure for motor vehicle bodies, parts, and accessories (including truck and bus bodies). Therefore, there was no way in which plants making truck and bus bodies could be distinguished from establishments making parts and accessories. For this reason, comparable data for the Motor Vehicles and Parts Industry and the Truck and Bus Bodies Industry are not shown for 1939. However, a table showing these industries combined is included.

As stated in the first paragraph of this text, certain motor vehicle parts such as tires, tubes, hardware, batteries, etc., are classified in other industries, based on the characteristics of the product itself rather than the use to which it is put.

To obtain complete statistics for the industries in which these products are classified, separate reports were obtained in the 1947 Census of Manufactures from plants of motor vehicle companies making these products. Foundries operated by motor vehicle companies as separate establishments also submitted separate reports, and are classified in the appropriate foundry industry. However, captive foundries within an establishment producing motor vehicles or parts are included in the Motor Vehicles and Parts Industry.

In the 1939 census, foundries and hardware plants of motor vehicle companies were included in the motor vehicles industry. Insofar as possible, the 1939 reports for hardware plants and foundries were retabulated to conform with the 1947 census data. However, in some instances in 1939 the foundry and hardware operations were combined with other activities, and it was not possible to retabulate the data on employment, wages, etc. The extent of this noncomparability, however, is relatively unimportant for the Motor Vehicles and Parts Industry in total.

Data on cost of materials and value of shipments for the Motor Vehicles and Parts Industry are not shown because of the extensive duplication included in these data. This is caused by the fact that there is a considerable amount of transfer of parts between plants of the same company and of shipments of parts by independent plants to motor vehicle companies for assembly into completed vehicles. Thus, these parts are to a large extent duplicated in both value of shipments and cost of materials. This duplication, however, is excluded from the data for value added by manufacture. (See GENERAL EXPLANATIONS on "Value added by manufacture.") To achieve uniformity in the distribution of value added by manufacture for multiplant companies, the valuation of parts transferred between plants of such companies was reported so that the value added by manufacture for the entire company was allocated to the various establishments in proportion to the contribution of each to the value of the finished vehicle.

In the 1939 Census of Manufactures, companies in the Motor Vehicles and Parts Industry operating two or more motor vehicle and parts plants in the same city were permitted to file combined reports for these plants. In the 1947 census, separate reports were obtained for each separate establishment regardless of the location.

In the 1939 census, the value data on motor vehicles produced included excise taxes (these taxes were also added to cost of materials in computing value added by manufacture). Such taxes were not included in the 1947 census.

Table 6-B includes data on the production and use of selected motor vehicle parts. These data are not a precise measure of the sale of replacement parts in the United States in that they include shipments of parts for export and because of inventory changes of parts from the beginning of 1947 to the end of 1947 for both producers of parts and assemblers of vehicles.

Truck and Bus Bodies (*Standard Industrial Classification No. 3713.*)—This industry comprises establishments primarily engaged in manufacturing truck and bus bodies, but not engaged in manufacturing complete trucks and busses. Establishments primarily engaged in manufacturing complete trucks and busses are classified in the Motor Vehicles and Parts Industry, and stamped body parts for trucks and busses in the Metal Stampings Industry.

As stated above for the Motor Vehicles and Parts Industry, it was found necessary to depart from the Standard Industrial Classification definition. This industry, as comprised for the 1947 Census of Manufactures, includes only manufacturers who produce truck and bus bodies for other than the motor vehicle companies, and establishments producing motor vehicles from purchased chassis. The truck and bus body plants of motor vehicle companies and companies producing truck and bus bodies for sale to motor vehicle companies are included in the Motor Vehicles and Parts Industry in 1947. Comparable 1939 data for Industry 3713 could not be obtained from the 1939 reports which requested only a single figure for motor vehicle bodies, parts, and accessories (including truck and bus bodies). However, a table showing comparable totals for motor vehicles and parts and truck and bus bodies, combined, is included.

Truck Trailers (*Standard Industrial Classification No. 3715.*)—This industry comprises establishments primarily engaged in manufacturing truck trailers and tractor-type bus trailers, but not engaged in manufacturing complete trucks and busses.

Data on truck trailers over five tons were collected on a monthly basis during 1947 by the Bureau of the Census on Form M45F. The data shown for these products in table 6-A are based on the monthly reports for 1947. However, revisions have been made for a few companies, based upon data collected

in the Census of Manufactures. These changes are largely the result of differences in method of reporting between the census and the monthly survey.

Of the total value of \$133.6 million of truck trailers, 12 percent was shipped by establishments classified in other industries. Establishments classified in the Truck Trailers Industry shipped \$117.2 million of truck trailers and \$25.8 million of other products such as truck and bus bodies, road-construction machinery, etc.

Automobile Trailers (*Full Standard Industrial Classification title and number: Automobile Trailers (for Attachment to Passenger Cars), 3716.*)—This industry comprises establishments primarily engaged in manufacturing trailers for attachment to passenger cars, but not engaged in manufacturing complete automobiles. Establishments primarily engaged in the manufacture of truck trailers and tractor-type bus trailers are classified in Industry 3715.

Data on the shipments of automobile trailers were collected during 1947 on Bureau of the Census Form M45A. The data shown in table 6-A for automobile trailers are based upon the figures collected in the monthly survey, with the addition of a few plants which were not canvassed in the monthly survey. Data on utility trailers were not included in the monthly survey. In the 1947 census about half the establishments in the industry reported the shipments of these utility trailers.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work	Value of products shipped ²
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Motor vehicles and parts:								
1947 ³	963	653,109	\$2,067,473	558,693	\$1,687,685	\$3,577,404	(⁴)	(⁴)
Truck and bus bodies:								
1947 ³	603	26,646	78,386	22,876	62,664	127,429	\$114,868	\$242,297
Total for Motor vehicles and parts and Truck and bus bodies:								
1947.....	1,566	679,815	2,145,859	581,569	1,750,349	3,704,833	(⁴)	(⁴)
1939 ⁵	942	n.a.	n.a.	388,126	630,592	1,287,472	(⁴)	(⁴)
Truck trailers:								
1947.....	119	12,020	34,833	9,400	25,256	65,257	85,596	150,853
1939 ⁵	99	n.a.	n.a.	3,960	5,291	13,626	22,356	35,982
Automobile trailers:								
1947.....	219	9,286	26,764	8,332	22,200	48,986	85,987	134,973
1939 ⁵	87	n.a.	n.a.	1,531	1,614	3,297	5,056	8,353
1937.....	85	n.a.	n.a.	2,992	3,610	5,921	7,178	13,099
Total for Truck and bus bodies, Motor vehicles and parts, Truck trailers, and Automobile trailers:⁷								
1947.....	1,904	701,121	2,207,456	599,301	1,797,805	3,819,076		
1939 ⁵	1,128	n.a.	n.a.	303,617	637,497	1,304,395		
1937.....	1,067	n.a.	n.a.	479,341	756,081	1,505,894		
1935.....	946	425,045	621,546	387,801	545,414	1,122,141		
1933.....	823	272,329	393,449	243,614	252,106	648,025		
1931.....	1,118	n.a.	n.a.	285,515	350,526	951,582		
1929.....	1,398	494,465	870,612	447,448	733,083	2,002,226		
1927.....	1,477	414,342	733,510	369,399	612,955	1,409,136		
1925.....	1,555	474,418	833,466	426,110	713,931	1,750,490	(⁴)	(⁴)
1923.....	2,471	451,619	769,545	404,886	659,877	1,464,869		
1921.....	2,359	248,027	406,491	212,777	318,763	758,377		
1919.....	2,830	393,939	593,306	343,115	491,121	1,139,395		
1914.....	1,271	145,191	127,453	127,092	101,927	276,623		
1909.....	743	84,854	88,173	75,721	48,694	117,556		
1904.....	178	13,230	8,416	12,049	7,169	16,883		
1899.....	57	2,509	1,615	2,241	1,321	2,944		

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. For 1933 and prior years, cost of contract work is not included in the figure subtracted from value of products. See GENERAL EXPLANATIONS—Value added by manufacture.

² For 1947, value of products shipped; for all other years, value of products made. See GENERAL EXPLANATIONS—Value of products shipped.

³ Separate industry figures for "Motor vehicles and parts" and "Truck and bus bodies" are not available for 1939. Combined figures for these industries are shown for 1939 and 1947.

⁴ Omitted because of duplication in these figures. See text on industry and GENERAL EXPLANATIONS—Duplication in cost of materials and value of products.

⁵ The returns for 1939 have been retabulated to provide figures comparable with those for 1947. The total of "Truck and bus bodies, motor vehicles and parts, truck trailers, and automobile trailers" value added for 1939, before retabulation and on a basis comparable with 1937, was \$1,322.5 million.

⁶ Revised.

⁷ The figures for 1939 and 1947 for "Motor vehicles and parts," "Truck and bus bodies," "Truck trailers," and "Automobile trailers" have been combined in order that a series could be shown for the entire period 1899-1947. For 1904-1937, the figures were obtained by combining the discontinued industries "Motor vehicles, not including motorcycles" and "Motor vehicle bodies and motor vehicle parts." For 1899, the figures represent only the former industry, since there were no establishments engaged chiefly in the manufacture of motor vehicle bodies and parts.

MOTOR VEHICLES AND EQUIPMENT

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TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947

[Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Motor vehicles and parts, total ¹	963	653,169	\$2,067,473	558,693	1,102,432	\$1,687,685	\$3,577,404			\$269,720
New England	30	5,690	16,002	4,765	9,360	12,114	33,197			4,974
Massachusetts	16	3,073	8,921	2,580	4,983	6,997	21,477			4,892
Middle Atlantic	148	72,331	222,271	60,844	122,335	180,037	399,578			16,044
New York	88	38,914	115,371	33,145	67,426	93,894	194,444			8,566
New Jersey	22	12,863	41,482	10,735	21,193	33,098	90,190			1,998
Pennsylvania	38	20,554	65,418	16,964	33,716	53,045	114,944			5,880
East North Central	572	522,539	1,673,750	449,304	885,065	1,374,796	2,759,215	(2)	(2)	212,973
Ohio	98	61,447	198,768	52,070	102,648	160,240	323,489			29,960
Indiana	70	52,688	172,410	45,289	89,472	144,274	328,744			16,051
Michigan	283	371,795	1,190,904	321,282	631,264	981,489	1,880,757			154,300
West North Central	37	23,359	67,832	19,402	38,192	52,796	169,107			4,630
South and West	176	29,250	87,618	24,378	47,530	67,942	216,307			31,099
California	108	12,118	38,205	9,921	19,508	29,128	97,509			14,408
Truck and bus bodies, total ¹	603	26,646	78,386	22,876	47,209	62,664	127,429	\$114,868	\$242,297	8,762
Northeast	189	4,741	13,976	4,118	8,743	11,145	21,951	18,126	40,077	923
New York	66	1,600	4,943	1,347	2,873	4,049	7,458	6,543	14,001	199
Pennsylvania	39	1,395	3,874	1,243	2,567	3,026	6,498	4,682	11,180	236
East North Central	150	14,634	44,673	12,470	25,366	35,773	72,130	67,959	140,089	5,705
Ohio	45	5,435	16,813	4,646	9,764	13,508	28,017	30,820	58,837	(d)
Indiana	17	1,994	5,534	1,794	3,405	4,777	11,142	9,875	21,017	644
Illinois	30	2,462	7,074	2,193	4,690	5,835	10,864	8,829	19,693	542
West North Central	64	2,252	5,893	1,980	4,112	4,688	9,044	9,038	18,082	597
Iowa	11	471	1,136	415	793	884	1,748	1,642	3,390	123
Missouri	26	1,232	3,239	1,084	2,297	2,626	5,280	4,746	10,026	324
Nebraska	4	203	487	177	353	399	634	1,199	1,833	75
South Atlantic	52	1,330	3,203	1,189	2,507	2,483	5,174	4,640	9,814	139
Maryland	9	201	499	176	375	390	670	377	1,047	11
Georgia	11	388	822	363	798	690	1,536	1,325	2,861	14
East South Central	17	578	1,510	481	1,034	1,286	3,882	2,367	6,249	406
West South Central	44	1,020	2,564	807	1,697	1,956	4,173	4,683	8,856	197
Oklahoma	12	512	1,440	352	710	991	2,145	2,880	5,025	47
Mountain	12	311	874	263	557	647	1,251	1,163	2,414	40
Pacific	75	1,780	5,693	1,568	3,193	4,686	9,824	6,892	16,716	755
California	51	1,315	4,428	1,149	2,367	3,579	7,916	5,257	13,173	555
Truck trailers, total ¹	119	12,020	34,833	9,400	19,239	25,256	65,257	85,596	150,853	6,147
Northeast	12	1,030	3,299	778	1,620	2,103	5,204	7,011	12,215	311
Pennsylvania	6	844	2,769	624	1,283	1,688	4,514	5,807	10,321	238
East North Central	27	5,854	16,503	4,419	8,972	12,185	29,096	39,358	68,454	4,488
Ohio	9	1,833	5,059	1,593	3,222	4,125	9,546	12,512	22,058	(d)
West North Central	13	947	2,600	778	1,404	1,891	4,496	9,338	13,834	266
Missouri	3	391	1,033	302	561	655	1,813	3,083	4,896	69
South and West	67	4,189	12,431	3,425	7,243	9,077	26,461	29,889	56,309	1,082
Texas	3	500	1,476	403	898	960	3,418	2,987	6,405	671
Oregon	7	318	1,043	266	535	825	1,631	2,716	4,347	214
California	24	1,305	4,190	1,017	2,058	2,993	10,839	12,713	23,552	507
Automobile trailers, total ¹	219	9,286	26,764	8,332	16,919	22,200	48,986	85,987	134,973	3,424
Northeast	5	28	65	27	51	64	99	161	200	2
East North Central	112	6,184	18,388	5,574	11,316	15,215	33,821	61,885	95,706	2,577
Ohio	19	380	951	337	733	728	1,899	2,660	4,459	89
Illinois	19	1,212	3,909	1,086	2,203	3,291	7,896	15,129	23,025	569
Michigan	33	2,484	7,341	2,220	4,477	5,938	13,567	23,519	37,086	908
West North Central	16	258	578	247	514	547	809	1,182	1,991	54
South and West	86	2,816	7,763	2,484	5,038	6,374	14,257	22,759	37,016	791
California	69	1,691	5,362	1,492	3,067	4,310	10,076	15,892	25,968	656

^d Withheld to avoid disclosing figures for individual companies.

¹ For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.

Motor vehicles and parts: *New England*, New Hampshire, 1; Vermont, 1; Rhode Island, 3; Connecticut, 9 (2,556); *East North Central*, Illinois, 90 (15,158); Wisconsin, 31 (21,421); *West North Central*, Minnesota, 11 (2,142); Iowa, 3 (336); Missouri, 15 (18,290); Nebraska, 4 (223); Kansas, 4 (2,369); *South and West*, Delaware, 1; Maryland, 6 (3,377); Virginia, 2; West Virginia, 2; North Carolina, 3 (373); Georgia, 10 (2,281); Florida, 2; Kentucky, 3 (2,127); Tennessee, 3 (3,468); Alabama, 5 (326); Mississippi, 1; Oklahoma, 4 (67); Texas, 10 (1,614); Colorado, 6 (122); Arizona, 1; Washington, 6 (359); Oregon, 3 (34).

Truck and bus bodies: *Northeast*, Maine, 2; New Hampshire, 1; Vermont, 1; Massachusetts, 23 (632); Rhode Island, 3 (74); Connecticut, 15 (73); New Jersey, 39 (945); *East North Central*, Michigan, 40 (1,789); Wisconsin, 18 (2,954); *West North Central*, Minnesota, 10 (227); South Dakota, 2; Kansas, 11; *South Atlantic*, Delaware, 3 (18); Virginia, 4 (88); West Virginia, 2; North Carolina, 14 (407); South Carolina, 1; Florida, 3 (87); *East South Central*, Kentucky, 5; Tennessee, 6 (488); Alabama, 5 (54); Mississippi, 1; *West South Central*, Arkansas, 5 (118); Louisiana, 5 (48); Texas, 22 (342); *Mountain*, Montana, 2; Idaho, 3 (19); Colorado, 4 (194); Utah, 2; Nevada, 1; *Pacific*, Washington, 19 (398); Oregon, 5 (67).

Truck trailers: *Northeast*, Massachusetts, 1; New York, 3 (23); New Jersey, 2; *East North Central*, Indiana, 3 (979); Illinois, 6 (385); Michigan, 6 (1,573); Wisconsin, 3 (1,084); *West North Central*, Minnesota, 2; Iowa, 2; Nebraska, 2; Kansas, 4 (403); *South and West*, Virginia, 3 (105); West Virginia, 1; South Carolina, 2; Georgia, 1; Florida, 1; Kentucky, 2; Tennessee, 1; Alabama, 3 (247); Mississippi, 2; Arkansas, 2; Louisiana, 1; Oklahoma, 3 (20); New Mexico, 1; Arizona, 1; Washington, 4 (206).

Automobile trailers: *Northeast*, Massachusetts, 2; New York, 3; *East North Central*, Indiana, 39; Wisconsin, 2; *West North Central*, Minnesota, 2; Iowa, 3 (86); Missouri, 8 (146); North Dakota, 1; Nebraska, 1; Kansas, 1; *South and West*, Virginia, 2; Florida, 2; Tennessee, 1; Mississippi, 1; Arkansas, 1; Oklahoma, 1; Texas, 7 (109); Colorado, 2; Arizona, 1; Utah, 1; Washington, 4 (4); Oregon, 4 (18).

² Omitted because of duplication in these figures. See text on industry and GENERAL EXPLANATIONS—Duplication in cost of materials and value of products.

CENSUS OF MANUFACTURES: 1947

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

(Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS)

ITEM	Industry				ITEM	Industry			
	Motor vehicles and parts	Truck and bus bodies	Truck trailers	Auto-mobile trailers		Motor vehicles and parts	Truck and bus bodies	Truck trailers	Auto-mobile trailers
ALL ESTABLISHMENTS					ESTABLISHMENTS REPORTING DETAILED STATISTICS—Continued				
Number of establishments.....	963	603	119	219	Cost of materials, fuel, electricity, and contract work.....	(1)	\$112,321	\$84,698	\$84,124
All employees:					Materials, parts, containers, and supplies.....	(1)	109,466	83,298	83,283
Number (average for the year).....	653,169	26,646	12,020	9,286	Fuels, total.....	\$46,038	728	438	183
Salaries and wages, total.....	\$2,067,473	\$78,386	\$34,833	\$26,764	Bituminous coal.....	21,374	370	162	79
Production and related workers:					Anthracite.....	1,223	22	2	8
Number (average for the year).....	558,693	22,876	9,400	8,332	Coke.....	2,910	32	2	
Man-hours, total..... thousands.....	1,102,482	47,209	19,239	16,919	Fuel oils.....	8,707	174	205	64
Wages, total.....	\$1,687,685	\$62,664	\$25,256	\$22,200	Gas.....	9,762	74	66	22
Value added by manufacture.....	\$3,577,404	\$127,429	\$65,257	\$48,986	Other fuels.....	3,063	45	11	10
ESTABLISHMENTS REPORTING DETAILED STATISTICS					Purchased electric energy.....	35,269	1,116	639	274
Number of establishments.....	707	418	94	155	Contract and commission work.....	41,560	1,014	323	384
All employees:					Value of inventories:				
Number (average for the year).....	652,344	25,707	11,878	8,938	Beginning of year, total.....	\$918,560	\$34,937	\$48,507	\$13,659
Salaries and wages, total.....	\$2,065,434	\$76,330	\$34,493	\$26,011	Finished products.....	143,148	4,418	10,928	2,609
Production and related workers:					Materials, supplies, and work in process.....	775,412	30,519	37,579	11,150
Number (average for the year).....	557,894	21,966	9,265	8,002	End of year, total.....	1,047,277	43,163	41,521	17,103
Man-hours, total..... thousands.....	1,100,793	45,382	18,971	16,269	Finished products.....	182,704	7,215	7,651	4,220
Wages, total.....	\$1,685,777	\$60,714	\$24,959	\$21,510	Materials, supplies, and work in process.....	864,513	35,948	33,870	12,883
Value added by manufacture.....	\$3,573,978	\$124,312	\$64,516	\$47,880	Expenditures for plant and equipment:				
Number of employees for pay period ended nearest Oct. 15:					New plant and equipment.....	\$269,720	\$8,762	\$6,147	\$3,424
All employees.....	647,034	26,005	10,651	10,209	Construction and major alteration of fixed plants.....	66,464	3,507	3,405	2,021
Male.....	576,227	25,524	9,917	9,761	Buildings.....	59,929	3,241	3,134	1,871
Female.....	70,807	1,381	734	448	Other construction.....	6,535	366	331	150
Production and related workers.....	553,467	22,984	8,249	9,190	Machinery and equipment.....	203,256	5,165	2,682	1,403
Male.....	506,596	22,705	8,219	8,974	Production machinery and equipment.....	177,367	4,548	2,299	1,033
Female.....	46,871	279	30	31	Other machinery and equipment.....	25,889	617	383	370
Force-account construction workers.....	63	27	1	1	Used plant and equipment, and land.....	23,706	836	248	210
Administrative, supervisory, sales, and all other.....	93,504	3,804	2,401	988	Number of highway-type motor vehicles owned or leased:				
Male.....	99,568	2,792	1,997	756	Trucks.....	2,319	346	127	258
Female.....	23,936	1,102	704	232	By manufacturer's rated capacity:				
All employees, number by month:					Under 1 1/2 tons.....	812	150	57	147
January.....	628,703	23,617	15,244	7,853	1 1/2 tons.....	672	118	39	71
February.....	660,221	24,374	14,323	7,782	Over 1 1/2 tons and less than 3 1/2 tons.....	667	66	11	31
March.....	661,014	24,732	13,788	7,650	3 1/2 tons and less than 5 tons.....	68	8	3	7
April.....	653,983	25,237	12,304	7,722	5 tons and over.....	110	4	17	2
May.....	628,207	25,420	12,006	8,102	By body type:				
June.....	645,265	25,596	11,076	8,817	Van.....	41	19		3
July.....	643,929	26,002	10,602	9,284	Stake or platform.....	1,123	161	39	78
August.....	651,457	26,688	10,459	9,521	Panel or light delivery.....	570	100	47	80
September.....	654,085	26,845	10,273	9,887	All other trucks.....	585	72	41	97
October.....	647,034	26,905	10,651	10,209	Truck tractors.....	615	38	236	13
November.....	661,397	26,435	10,651	10,315	Trailers and semitrailers.....	1,130	42	184	19
December.....	673,603	26,478	11,028	10,047					

1 Omitted because of the extent of duplication in cost of materials. See text on industry.

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

(Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A ^d appears in the column where the figure has been omitted and the combined figure is printed in italics)

INDUSTRY AND ITEM	Total, all establishments	Establishments with an average of—									
		1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees	500-999 employees	1,000-2,499 employees	2,500 employees and over
Motor vehicles and parts:											
Number of establishments.....	963	163	123	92	131	78	100	64	74	70	69
Number of employees (average for the year).....	653,169	357	845	1,297	4,054	5,577	15,822	22,416	54,311	127,639	420,851
Value added by manufacture.....	\$3,577,404	\$1,619	\$4,550	\$7,440	\$23,844	\$31,865	\$86,008	\$112,117	\$311,762	\$807,331	\$2,190,868
Truck and bus bodies:											
Number of establishments.....	603	145	141	111	106	52	27	13	6	2	
Number of employees (average for the year).....	26,646	346	936	1,530	3,310	3,612	4,086	4,823	7,105	(^d)	
Value added by manufacture.....	\$127,429	\$1,511	\$3,996	\$7,292	\$15,714	\$16,677	\$26,286	\$19,210	\$86,778	(^d)	
Truck trailers:											
Number of establishments.....	119	15	17	16	26	16	18	6	4	1	
Number of employees (average for the year).....	12,020	37	126	228	880	1,151	2,915	2,079	4,004	(^d)	
Value added by manufacture.....	\$65,257	\$118	\$520	\$963	\$4,500	\$5,293	\$17,467	\$10,875	\$26,521	(^d)	
Automobile trailers:											
Number of establishments.....	219	54	33	33	51	24	18	4	2		
Number of employees (average for the year).....	9,286	121	218	483	1,666	1,655	2,637	2,496	(^d)		
Value added by manufacture.....	\$48,986	\$481	\$696	\$1,585	\$9,698	\$10,975	\$15,200	\$10,351	(^d)		

MOTOR VEHICLES AND EQUIPMENT

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TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947

(The first column shows the total value of shipments of the specified industry, divided among: (A) products classified in (primary to) the industry, (B) products classified in other industries (secondary to the specified industry), and (C) miscellaneous receipts. The second column shows the value of shipments of the primary products of the specified industry reported by establishments in other industries. The third column shows the total value of shipments of the primary products of the specified industry by all reporting manufacturers)

[Money figures in thousands of dollars]

MOTOR VEHICLES AND PARTS INDUSTRY	Shipped by—			TRUCK AND BUS BODIES INDUSTRY	Shipped by—		
	Motor vehicles and parts industry	Other industries	All industries		Truck and bus bodies industry	Other industries	All industries
Total shipments by the industry	(1)			Total shipments by the industry	\$242,297		
A. Motor vehicles and parts.....	(1)			A. Primary products of the industry.....	178,373	\$19,091	\$197,464
Passenger cars.....	\$4,085,547	(2)	\$4,085,547	Vehicles produced on purchased chassis.....	19,156	1,111	20,267
Other vehicles on chassis of own manufacture.....	1,859,397				Truck and bus bodies, for sale to other than vehicle manufacturers.....	159,217	17,980
B. Secondary products.....	398,355			B. Secondary products.....	47,948		
Carburetors.....	29,609			Truck trailers.....	6,381		
Wheel-type tractors.....	23,743			Transportation equipment, n.e.c.....	3,760		
Steel springs, excluding wire.....	23,455			Other secondary products (oil burners, warm air furnaces, excavating and road-construction and maintenance machinery, etc.).....	37,807		
Starting, lighting, and ignition equipment for internal-combustion engines.....	12,384			C. Miscellaneous receipts.....	15,976		
Job stampings, except automobile.....	8,978			Repair work.....	11,736		
Jigs, fixtures, etc.....	7,318			Other receipts.....	4,240		
Other secondary products (castings, forgings, engines, and parts, etc.).....	292,868						
C. Miscellaneous receipts.....	102,535						
Contract and commission work.....	10,317						
Repair work.....	5,565						
Scrap and salable refuse.....	68,896						
Nonmanufacturing activities.....	17,757						

AUTOMOBILE TRAILERS INDUSTRY	Shipped by—			TRUCK TRAILERS INDUSTRY	Shipped by—		
	Automobile trailers industry	Other industries	All industries		Truck trailers industry	Other industries	All industries
Total shipments by the industry	\$134,973			Total shipments by the industry	\$150,853		
A. Automobile trailers, for attachment to passenger cars.....	132,517	\$1,665	\$134,182	A. Truck trailers.....	117,203	\$16,387	\$133,590
B. Secondary products.....	1,646			B. Secondary products.....	25,816		
C. Miscellaneous receipts.....	810			Truck bodies.....	4,780		
				Other secondary products (road-construction machinery, motor vehicle parts, etc.).....	21,036		
				C. Miscellaneous receipts.....	7,834		
				Repair work.....	4,653		
				Other receipts.....	3,181		

¹ Omitted because of duplication in value of products. See text on industry and GENERAL EXPLANATIONS—Duplication in cost of materials and value of products.
² Only a relatively small amount of the value of shipments of the motor vehicles shown here was reported by establishments classified in other industries. These have been included in the totals reported by the industry.

TABLE 6-A.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	1947		1939	
	Total shipments and interplant transfers		Total production for sale and interplant transfer	
	Quantity (units)	Value f.o.b. plant	Quantity (units)	Value f.o.b. plant
Passenger cars		\$4,085,547		\$1,806,310
Completes vehicles, knocked-down or assembled ¹	3,554,532	4,080,311	2,824,203	1,799,503
Chassis for sale separately.....	4,197	5,236	21,227	6,807
Other vehicles produced on chassis of own manufacture		1,859,397		n.a.
Trucks, truck tractors and truck chassis, knocked-down or assembled ²				
Basic chassis: ⁴				
Gross vehicle weight:				
5,000 lbs. and less.....	375,191	249,273		
5,001-10,000 lbs.....	184,757	147,522		
10,001-14,000 lbs.....	257,711	229,835		
14,001-16,000 lbs.....	293,439	331,887		
16,001-19,500 lbs.....	42,054	75,338	3 675,606	3 456,821
19,501-26,000 lbs.....	43,703	113,132		
Over 26,000 lbs.....	27,018	135,098		
Bodies and other equipment billed with basic chassis ⁴		337,688		
Motor coaches (excluding trolley busses) ⁵	19,052	226,916		
Fire department vehicles ⁶	1,191	12,708	7 955	7 5,696
Vehicles produced on purchased chassis ⁸		20,267		n.a.
Ambulances.....	1,240	5,023		
Hearse and undertakers' wagons.....	2,352	9,952	2,840	6,428
Fire department vehicles ⁶	790	3,457	(7)	(7)
Busses.....	376	1,835	(3)	(3)
Bodies for sale separately to other than vehicle manufacturers, for mounting on new chassis ⁹		177,197		
Truck (include platform, stake, van, tank, dump, etc.).....	n.a.	131,327		n.a.
Bus.....	22,980	36,061		
Truck and bus bodies, not reported separately by type.....	n.a.	9,809		

See footnotes at end of table.

TABLE 6-A.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939—Continued

PRODUCT	1947		1939	
	Total shipments and interplant transfers		Total production for sale and interplant transfer	
	Quantity (units)	Value f.o.b. plant	Quantity (units)	Value f.o.b. plant
Truck trailers		\$133,590	26,094	\$28,891
Truck trailers (5 ton capacity and over) as reported monthly on Form M45F ¹⁰	52,905	127,285		
Complete units.....	49,964	122,615		
Vans.....	24,183	62,635		
Insulated and refrigerated.....	2,104	7,558		
All other closed top (including furniture).....	20,302	50,896		
Open top.....	1,777	4,191		
Platforms.....	11,810	22,205		
With cattle and stake racks.....	3,113	6,247		
With grain bodies.....	1,473	2,447		
All other.....	7,224	13,601		
Tanks.....	3,063	17,894	26,094	28,891
Petroleum.....	3,467	15,336		
All other.....	496	2,558		
Pole and logging.....	5,480	7,377		
Single axle.....	3,778	2,588		
Tandem axle.....	1,702	4,789		
Low-bed heavy haulers.....	2,304	6,894		
Off-highway.....	149	629		
Dump trailers.....	718	1,810		
All other trailers.....	1,357	3,081		
Trailer chassis, sold separately.....	3,031	4,670		
Truck trailers, of less than 5 ton capacity ¹¹	n.a.	6,305		
Automobile trailers (for attachment to passenger cars)		134,182		7,945
Trailer coaches (housing types only).....	76,372	121,834	11,782	7,504
Other automobile trailers (commercial-display, utility, camp, etc.) and chassis for automobile trailers, sold separately.....		12,348		441

NOTE: In 1939, 3,524,831 motor vehicles, valued at \$2,275 million were produced. Factory sales of motor vehicles during 1939, compiled on monthly summaries by the Bureau of the Census amounted to 3,577,292 vehicles and chassis, 52,461 more than the 1939 Census of Manufactures figure. This difference was largely accounted for by the fact that the monthly figures included data for foreign assemblies from parts made in the United States, whereas some manufacturers, in filing their returns, reported these as parts. Moreover, the monthly figures represented factory sales, while the Census of Manufactures report referred to production. In addition, the returns made by some of the establishments for the Census of Manufactures were on a fiscal year basis. The 3,577,292 vehicles and chassis sold included 2,866,796 passenger cars and 710,496 trucks, busses, and truck chassis.

n.a.—Not available.

¹ Includes station wagons, ambulances, hearses, and taxicabs if produced on passenger car chassis. Value includes extra equipment billed with vehicles.

² Includes trucks, such as pick-up, sedan delivery, panel, or other commercial cars made on passenger car chassis if these chassis are of own manufacture. Includes station wagons, ambulances, hearses, and taxicabs if produced on truck chassis. Includes all truck chassis whether or not to be used for transportation of property, such as fire apparatus, street sprinklers, school busses, ambulances, etc., but excludes specialized road construction machinery.

³ These figures include trucks and busses built on chassis of own manufacture and those built on purchased chassis, separate data for which were not collected in 1939.

⁴ The sum of values reported for basic chassis and bodies and other equipment billed with basic chassis represents the total value received from the sale of trucks, truck tractors, and truck chassis. Amounts reported for basic chassis represent values of the basic chassis, based on average wholesale prices realized during 1947. The amount reported for bodies and other equipment billed with basic chassis represents (1) the value received for bodies and other equipment shipped with the basic chassis; and (2) any plus or minus differences not included in the amounts reported for basic chassis owing to the use of average wholesale prices for computing the values of the basic chassis.

⁵ Includes all coaches or coach chassis delivered to common carriers or franchised operators for city, intercity, charter hire or sight-seeing use and integral type school coaches. Other types of school busses or school bus chassis were excluded.

⁶ Separate data are shown for fire department vehicles produced on chassis of own manufacture and for fire department vehicles produced on purchased chassis. A small number of fire department vehicles, however, are produced on chassis furnished by customers. Data for such vehicles are not included here but are included in the value of bodies for sale to other than vehicle manufacturers.

⁷ These figures include fire apparatus, built on chassis of own manufacture and fire apparatus built on purchased chassis, separate data for which were not collected in 1939.

⁸ A small number of trucks, street cleaning apparatus, and other vehicles produced on purchased chassis were reported in 1947. Data for these commodities are not shown since they are believed to be incomplete. For the 4,753 vehicles produced on purchased chassis for which separate data are shown above, the cost of the chassis was reported at \$5,955,000.

⁹ Truck and bus bodies built by garages, service stations, and other establishments, whose activities were primarily nonmanufacturing during 1947 were excluded from these data. It is believed that a substantial number of truck bodies are built by such nonmanufacturing establishments.

¹⁰ Revised—See text on industry.

¹¹ Includes a small number of trailer chassis shipped by companies not producing complete trailers.

MOTOR VEHICLES AND EQUIPMENT

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TABLE 6-B.—PRODUCTION AND USE OF PARTS FOR PASSENGER CARS, TRUCKS, AND BUSES: 1947

[Figures in thousands of units]

PRODUCT	Total number of units produced ¹	Total number of units used in assembly of new vehicles	Total number of units for replacement and other purposes ¹
Engines, new (with or without cylinder heads, fuel pumps, water pumps, and other standard components):			
Gasoline.....	5,767	4,680	1,087
Diesel and semi-Diesel.....	15	13	2
Carburetors.....	8,657	4,680	3,977
Pistons:			
Aluminum.....	50,407	22,650	27,757
All other.....	16,396	8,218	8,178
Piston rings:			
Oil type.....	197,582	47,901	149,681
Compression.....	356,113	62,148	293,965
Water pumps.....	9,485	5,546	3,939
Storage batteries.....	² 31,652	4,693	² 26,959
Battery charging generators.....	5,728	4,693	1,035
Starting motors.....	² 5,751	4,693	² 1,058
Spark plugs.....	³ 252,116	30,797	³ 221,319
Mufflers (exhaust).....	13,559	4,693	8,866
Muffler tailpipes.....	8,125	4,693	3,432
Radiators, complete.....	5,817	4,693	1,124
Radiator cores (includes cores incorporated in complete radiators).....	5,840	4,693	1,147
Wheels (passenger car and truck and bus types—including those for truck trailers and trailer coaches).....	29,088	24,691	4,397
Universal joints.....	12,937	6,976	5,961
Shock absorbers.....	21,340	16,696	4,644
Fan belts and similar type belts for motor vehicle engines.....	35,667	5,678	29,989
Clutch disc and facing assemblies.....	11,778	4,472	7,306

¹ In 1947, the number of motor vehicle parts for the replacement market was derived from the figures on "Total Number of Units Produced" reported by parts producers and motor vehicle manufacturers and the figures on "Total Number of Units Used in Assembly of New Vehicles in 1947" reported by motor vehicle producers. The number of units produced included some parts suitable for use in motor vehicles but which may have been used for other purposes. However, all parts included were "new" parts. Rebuilt engines, carburetors, pistons, etc., were excluded from the 1947 Census of Manufactures.

In 1939, the Census Bureau made a special survey on replacement sales of motor vehicle parts. Data were collected on the number of units sold to the United States replacement market. The 1939 data on number of units (in thousands) are available for the following replacement parts: Carburetors—478; Pistons, aluminum—6,979; Pistons, cast iron—1,654; Piston rings, oil type—73,162; Piston rings, compression type—93,144; Piston rings, not reported as to kind—4,373; Storage batteries—12,352; Spark plugs—78,201; Mufflers—5,028.

² Includes a small quantity used for farm tractors.

³ Includes a very small quantity of aircraft type spark plugs, the number of which are not segregated to avoid disclosing figures for individual companies.

TABLE 7.—SELECTED MATERIALS CONSUMED, BY KIND: 1947

[The table below summarizes the consumption of selected metal shapes by manufacturers during 1947. For each shape, manufacturing establishments were required to report consumption, in quantity and cost, provided that such usage during 1947 exceeded the following amounts: for iron castings, steel castings, each of six carbon steel shapes—50 short tons; for alloy steel bars and all other alloy steel—25 short tons; for stainless steel, brass and copper wire mill shapes, copper and brass castings, aluminum mill shapes and aluminum castings—10 short tons]

[Money figures in thousands of dollars]

METAL SHAPE	MOTOR VEHICLES AND PARTS INDUSTRY			TRUCK AND BUS BODIES INDUSTRY			TRUCK TRAILERS INDUSTRY			AUTOMOBILE TRAILERS INDUSTRY		
	Establishments consuming more than specified quantities											
	Number	Short tons	Cost	Number	Short tons	Cost	Number	Short tons	Cost	Number	Short tons	Cost
Iron castings, rough and semifinished.....	152	1,459,485	\$291,185	8	8,161	\$2,138	11	1,523	\$371	(¹)	(^d)	(^d)
Steel castings, rough and semifinished.....	62	83,823	18,076	9	2,549	854	23	4,465	1,655	(¹)	(^d)	(^d)
Steel mill shapes and forms.....	n.a.	6,344,400	568,222	n.a.	210,504	18,775	n.a.	91,479	9,288	n.a.	6,802	\$910
Carbon steel:												
Bars and bar shapes.....	213	769,913	63,360	59	33,434	2,718	35	10,060	921	5	617	69
Sheet and strip.....	245	4,625,891	399,186	108	124,083	11,106	35	27,864	3,237	(¹)	1,302	181
Structural shapes.....	44	9,422	877	39	21,876	1,765	35	29,556	2,495	12	3,408	438
Plates.....	52	144,909	10,929	31	26,691	2,035	38	17,442	1,663			
Wire.....	49	47,823	6,789									
All other mill shapes and forms.....	54	131,942	14,545	7	2,111	343	5	1,041	231	(¹)	836	123
Alloy steel, except stainless:												
Bars and bar shapes.....	101	542,069	56,148	6	506	55	7	962	174			
All other mill shapes and forms.....	24	59,982	7,030	7	1,183	137	7	4,554	567	(¹)	639	108
Stainless steel.....	48	12,359	9,378	(¹)	620	616						
Copper and copper-base alloy:												
Brass and wire mill shapes and forms.....	102	118,747	71,196	(¹)	(^d)	(^d)						
Castings, rough and semifinished.....	33	3,159	3,241	(¹)	103	71						
Aluminum:												
Aluminum mill shapes.....	47	21,487	13,969	28	3,099	1,894	13	4,544	2,705	31	4,128	2,446
Castings, rough and semifinished.....	60	20,844	17,290	(¹)	(^d)	(^d)	(¹)	(^d)	(^d)	(¹)	(^d)	(^d)

n.a.—Not available.

^d Withheld to avoid disclosing figures for individual companies.

¹ Less than 5 establishments.

CENSUS OF MANUFACTURES: 1947

TABLE 8.—NUMBER OF ESTABLISHMENTS PERFORMING SELECTED METALWORKING OPERATIONS: 1947

[The figures in the table represent the number of establishments maintaining the metalworking operation specified, according to the usual number of production workers employed in the operation during 1947]

METALWORKING OPERATION	MOTOR VEHICLES AND PARTS INDUSTRY						TRUCK TRAILERS INDUSTRY					TRUCK AND BUS BODIES INDUSTRY									
	Number of establishments performing selected metalworking operations																				
	Total	Distribution by number of production workers in the operation					Total	Distribution by number of production workers in the operation					Total	Distribution by number of production workers in the operation							
		1-4	5-19	20-49	50-99	100 and over		1-4	5-19	20-49	50-99	100 and over		1-4	5-19	20-49	50-99	100 and over			
Foundry.....	24	4	3	2	3	12	1				1				2				1	1	
Die casting.....	25	3	9	4	5	4															
Forging—presses, hammers, or upsetters.....	74	20	18	9	12	15	4	3	1						34	27	5		1		1
Electroplating.....	88	15	28	22	9	14									2		2				
Galvanizing and other hot dip coating.....	35	15	14	5	1										3	1	1				
Heat treating or annealing of metals.....	190	74	42	42	18	14	7	7							18	15	2				1
Automatic screw-machine department.....	145	35	51	31	13	15	1		1						6	3	2				
Machine shop.....	412	69	104	75	54	110	44	16	15		9	2	2		64	31	20	6	3		4
Tool and die room.....	258	55	63	48	36	56	7	4	3						15	5	7	2			1
Pattern shop.....	42	16	14	6	2	4	2	1	1						13	7	0				
Plate or structural fabrication.....	51	8	21	12	2	8	50	5	22		9	7	7		96	24	44	15	7		6
Stamping, blanking, forming, or drawing.....	305	63	74	44	37	87	21	8	11		2				76	23	24	18	5		6

NOTE: In each of these industries some small establishments did not report detailed statistics, including this inquiry. There were 166 such establishments in the "Motor vehicles and parts" industry, 185 in the "Truck and bus bodies" industry, and 25 in the "Truck trailers" industry. In addition, a number of other establishments (particularly in truck and bus bodies) did not answer the inquiry on metalworking operations. They were largely small establishments.

AIRCRAFT AND PARTS

This report shows 1947 Census of Manufactures statistics for establishments engaged primarily in the production of aircraft; aircraft engines and parts; aircraft propellers and parts; and other aircraft parts, components, and accessories. These establishments have been classified in four industries, described separately below.

The 1939 Census of Manufactures included these as one industry. The 1939 reports have been retabulated to provide data comparable to the four 1947 industries. Data for years prior to 1939 were not retabulated. Industries 3723 and 3729 are shown combined for the year 1939 in table 1 because the propeller industry could not be shown separately without disclosing the operations of individual companies.

Aircraft (*Standard Industrial Classification No. 3721.*)—This industry comprises establishments primarily engaged in manufacturing or assembling complete aircraft such as airplanes, gliders, dirigibles, and balloons, and which may also manufacture aircraft parts and auxiliary equipment. Establishments primarily engaged in manufacturing engines, propellers, and other aircraft parts and auxiliary equipment, but not engaged in manufacturing or assembling complete aircraft are classified in Industries 3722, 3723, and 3729.

In most industries value added by manufacture is calculated by subtracting cost of materials, supplies, containers, fuel, purchased electric energy, and contract work from the value of products. For the aircraft industry, however, this calculation is modified because of the long period of time, amounting to 2 or 3 years in some cases, between the input of materials and labor and the completion of the aircraft. In 1947, there were considerable expenditures by some establishments for research, design, and developmental work, which were not reflected in aircraft shipped (or completed) during that year. Therefore, an inquiry was included on the reporting form requesting the total costs (including labor, materials, maintenance, overhead, etc.) incurred by each establishment during 1947. Where this figure exceeded the receipts for products shipped, it was substituted for value of shipments in computing value added by manufacture. Also, this cost figure was substituted for value of shipments in computing value added by manufacture when shipments included a large amount of work done in previous years. Since total value of shipments and total cost of materials are not meaningful for this industry in 1947, they are not shown.

The data published in this release differ somewhat from the figures for 1947 published in the "Facts for Industry" series M42A. Insofar as the military data are concerned, the number of planes is the same but the value differs because the 1947 census collected data on value of shipments, whereas the Facts for Industry survey obtained the value of payments received. The Census of Manufactures figures on number of civil aircraft are slightly higher than the monthly data for 1947. The latter will be revised in subsequent publications in the M42A series. Differences in the number of establishments and the employment data shown in the census and monthly survey, respectively, reflect differences in the industry classification procedures followed in the two sets of reports. Some small establishments not included in the monthly survey of the aircraft industry reported in the 1947 census that they were

doing experimental work on complete aircraft, and these establishments were, therefore, included in the aircraft industry. Also, some establishments in the current survey are in industries other than aircraft in the Census of Manufactures, where the classification is based on the major activity of the establishment.

Aircraft Engines (*Full Standard Industrial Classification title and number: Aircraft Engines and Engine Parts, 3722.*)

—This industry comprises establishments primarily engaged in manufacturing aircraft engines and engine parts, but not engaged in manufacturing or assembling complete aircraft. Important products of this industry include internal-combustion and jet-propulsion engines; engine mount parts; air scoops; turbo superchargers; lubricating, cooling, and exhaust systems; nonelectric starters; and aircraft engine pumps.

There are differences in the data published in this release, compared with the data on aircraft engines published for 1947 in "Facts for Industry" series M42A. The number of establishments and employment data differ largely because the census includes manufacturers of engine parts and the monthly survey represents only manufacturers of complete engines. The value figure for military engines differs, since payments received were collected in the monthly survey and value of shipments in the Census of Manufactures.

Aircraft Propellers (*Full Standard Industrial Classification title and number: Aircraft Propellers and Propeller Parts, 3723.*)

—This industry comprises establishments primarily engaged in manufacturing aircraft propellers and propeller parts, but not engaged in manufacturing or assembling complete aircraft. Important products of this industry include variable and fixed pitch propellers, and propeller parts such as accumulators, blades, feathering pumps, and governors.

The calculation of value added by manufacture, in most industries, is accomplished by subtracting cost of materials, supplies, containers, fuel, purchased electric energy, and contract work from the value of products. In this industry, however, as in the airframe industry, there were large expenditures for research, design, and developmental work and also significant changes in work in process inventories. Figures shown on value added for aircraft propellers are partly estimated, therefore, to allow for these factors. Since total value of shipments and total cost of materials are not meaningful for this industry in 1947, they are not shown.

Aircraft Equipment, Not Elsewhere Classified (*Full Standard Industrial Classification title and number: Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified, 3729.*)

—This industry comprises establishments primarily engaged in manufacturing aircraft parts and auxiliary equipment, not elsewhere classified, but not engaged in assembling complete aircraft. Important products of this industry include airframe assemblies, wing assemblies, flaps and dive brakes, elevators, fins, rudders, and other empennage assemblies, and alighting assemblies and parts such as landing and beaching gear, pontoons, and landing skis; auxiliary equipment such as de-icing equipment, bomb racks, turrets and turret drives, parachutes, targets, link trainers, and other auxiliary equipment specifically adapted for aircraft. Establishments primarily engaged in manufacturing or assembling complete aircraft are classified in Industry 3721, aircraft engines and parts in Industry 3722, propellers and propeller parts in Industry 3723, aeronautical instruments in Industry 3811, and aeronautical electrical equipment in Industry 3641.

CENSUS OF MANUFACTURES: 1947

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work	Value of products shipped ¹
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Aircraft:								
1947.....	58	146,625	\$462,906	110,332	\$316,705	\$605,983	(²)	(³)
1939 ⁴	44	n.a.	n.a.	34,159	52,813	112,343	(²)	(³)
Aircraft engines:								
1947.....	57	50,253	165,554	35,872	110,177	251,158	\$212,245	\$463,403
1939 ⁴	20	n.a.	n.a.	9,445	17,041	50,928	31,276	82,204
Aircraft propellers:								
1947.....	13	7,423	25,666	4,822	15,230	26,685	(²)	(³)
Aircraft equipment, n.e.c.:								
1947.....	204	15,310	49,576	11,570	34,095	70,749	35,798	106,547
Aircraft propellers and aircraft equipment, n.e.c.:								
1947.....	217	22,733	75,242	16,392	40,325	97,434	(²)	(³)
1939 ⁴	67	n.a.	n.a.	5,157	7,866	20,602	(²)	(³)

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.² For 1947, value of products shipped; for prior years, value of products made. See GENERAL EXPLANATIONS—Value of products shipped.³ See text for explanation of omission of figures for cost of materials, etc. and value of products shipped.⁴ The 1939 returns for the discontinued industry "Aircraft and parts, including aircraft engines," have been retabulated to provide figures comparable with those for 1947.

No comparable figures are available prior to 1939.

⁵ The 1939 data for "Aircraft propellers" and "Aircraft equipment, n. e. c." have been combined to avoid disclosing the operations of individual companies.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947

[Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Aircraft, total¹	58	146,625	\$462,906	110,332	221,796	\$316,795	\$605,983		\$7,901	
Northeast.....	16	24,205	77,165	17,430	34,483	48,623	90,446		2,136	
New York.....	6	13,968	47,181	10,464	19,934	29,800	55,530		565	
East North Central.....	5	4,977	15,658	2,893	6,109	8,403	20,365	(²)	256	
West North Central.....	6	7,946	26,858	6,052	12,881	19,103	39,000	(²)	518	
South.....	11	29,489	85,775	25,047	50,248	68,133	114,698		1,126	
Pacific.....	20	80,008	257,450	58,901	118,075	172,633	341,474		3,865	
Aircraft engines, total¹	57	50,253	165,554	35,872	73,798	110,177	251,158	\$212,245	\$463,403	13,651
Northeast.....	26	29,188	94,960	20,012	41,899	60,236	146,485	106,050	252,535	9,120
New York.....	9	1,636	5,308	1,012	2,235	3,136	6,372	4,640	11,012	391
North Central.....	18	19,256	64,189	14,601	29,254	45,710	93,488	100,407	193,895	3,983
Michigan.....	5	347	1,174	207	414	764	1,559	348	1,907	21
Pacific.....	13	1,809	6,405	1,259	2,645	4,231	11,185	5,788	16,973	548
California.....	13	1,809	6,405	1,259	2,645	4,231	11,185	5,788	16,973	548
Aircraft propellers, total¹	13	7,423	25,666	4,822	9,916	15,230	26,685	(²)	(³)	3,361
Aircraft equipment, n. e. c., total¹	204	15,310	49,576	11,570	23,942	34,095	70,749	35,798	106,547	2,954
Northeast and North Central.....	88	6,615	20,923	4,988	10,641	14,331	27,379	16,674	44,053	1,118
Connecticut.....	14	312	954	249	532	625	1,360	696	2,066	210
New York.....	26	2,069	6,370	1,474	3,148	4,024	8,543	4,424	12,907	351
Pennsylvania.....	3	37	86	32	67	75	191	105	299	4
South and West.....	116	8,695	28,653	6,582	13,301	19,704	43,370	19,124	62,494	1,836
California.....	104	8,400	27,902	6,327	12,752	19,165	42,303	18,026	60,929	1,800

¹ For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.**Aircraft:** Northeast, Connecticut, 5 (8,193); New Jersey, 2; Pennsylvania, 3; East North Central, Ohio 3; Illinois, 1; Michigan, 1; West North Central, Minnesota, 1; Missouri, 1; Kansas, 4; South, Delaware, 1; Maryland, 3 (16,184); Florida, 1; Oklahoma, 2; Texas, 4 (12,944); Pacific, Washington, 2; California, 18.**Aircraft engines:** Northeast, Massachusetts, 4 (4,655); Connecticut, 5 (13,834); New Jersey, 5 (6,989); Pennsylvania, 3 (2,024); North Central, Ohio, 7 (8,580); Indiana, 3 (8,915); Illinois, 2; Iowa, 1.**Aircraft propellers:** Connecticut, 3; New Jersey, 2; Pennsylvania, 1; Ohio, 2; Michigan, 1; Wisconsin, 1; Iowa, 1; Texas, 1; California, 1.**Aircraft equipment, n. e. c.:** Northeast and North Central, New Jersey, 9 (664); Ohio, 11 (1,334); Illinois, 1; Michigan, 15 (478); Minnesota, 2; Missouri, 1; Kansas, 6 (1,655); South and West, Maryland, 2; West Virginia, 1; Tennessee, 1; Oklahoma, 1; Texas, 2; Wyoming, 1; Colorado, 2; Arizona, 1; Washington, 1.² See text for explanation of omission of figures for cost of materials, etc. and value of products shipped.

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS]

ITEM	Industry				ITEM	Industry			
	Air-craft	Air-craft engines	Air-craft propellers	Aircraft equipment, n. e. c.		Air-craft	Air-craft engines	Air-craft propellers	Aircraft equipment, n. e. c.
Number of establishments.....	58	57	13	204	Cost of materials, fuel, electricity, and contract work—Continued				
All employees:					Purchased electric energy.....	\$5,273	\$3,677	\$511	\$696
Number (average for the year).....	146,625	50,253	7,423	15,310	Contract and commission work.....	29,217	19,103	2,957	4,028
Salaries and wages, total.....	\$462,906	\$165,554	\$25,666	\$49,576	Value of inventories:				
Production and related workers:					Beginning of year, total.....	\$432,582	\$109,849	\$15,018	\$26,086
Number (average for the year).....	110,332	35,872	4,822	11,570	Finished products.....	15,165	25,678	2,905	2,914
Man-hours, total.....	221,796	73,798	9,916	23,942	Materials, supplies, and work in process.....	417,417	84,171	12,113	23,172
Wages, total.....	\$316,795	\$110,177	\$15,230	\$34,995	End of year, total.....	500,961	141,528	17,231	23,993
Value added by manufacture.....	\$605,983	\$251,158	\$26,685	\$70,749	Finished products.....	20,422	26,130	2,028	2,152
Materials, supplies, and work in process.....					Materials, supplies, and work in process.....	480,539	115,398	15,203	21,841
Number of employees for pay period ended nearest Oct. 15:					Expenditures for plant and equipment:				
All employees.....	140,568	49,628	7,634	15,028	New plant and equipment.....	\$7,901	\$13,651	\$3,361	\$2,954
Male.....	121,054	43,284	6,857	13,151	Construction and major alteration of fixed plants.....	2,349	4,537	1,250	871
Female.....	19,514	6,344	777	1,875	Buildings.....	1,627	3,926	1,177	794
Production and related workers.....	105,191	35,851	5,077	11,576	Other construction.....	722	611	82	77
Male.....	94,432	33,203	4,920	10,950	Machinery and equipment.....	5,552	9,114	2,102	2,083
Female.....	10,759	2,648	147	916	Production machinery and equipment.....	3,502	8,662	1,441	1,761
Force-account construction workers.....					Other machinery and equipment.....	2,050	462	661	322
Administrative, supervisory, sales, and all other.....	35,377	13,777	2,557	3,450	Used plant and equipment, and land.....	17,921	22,151	3,232	661
Male.....	26,622	10,081	1,937	2,491	Number of highway-type motor vehicles owned or leased:				
Female.....	8,755	3,696	620	959	Trucks.....	549	147	25	171
All employees, number by month:					By manufacturer's rated capacity:				
January.....	159,870	53,082	7,403	15,438	Under 1 1/2 tons.....	203	58	7	97
February.....	157,277	51,929	7,182	15,567	1 1/2 tons.....	213	35	11	59
March.....	154,758	51,906	7,328	16,415	Over 1 1/2 tons and less than 3 1/2 tons.....	70	24	6	15
April.....	156,089	51,157	7,378	15,816	3 1/2 tons and less than 5 tons.....	28	10	1	
May.....	148,334	49,965	7,303	15,414	5 tons and over.....	35	20		
June.....	140,743	49,134	7,316	15,615	By body type:				
July.....	139,369	48,798	7,247	15,381	Van.....	19	3	2	4
August.....	139,637	48,747	7,361	15,151	Stake or platform.....	204	64	7	59
September.....	138,338	48,081	7,438	14,984	Panel or light delivery.....	180	48	14	85
October.....	140,568	48,828	7,634	15,026	All other trucks.....	146	32	2	23
November.....	142,002	49,602	7,709	14,914	Truck tractors.....	82	7	3	9
December.....	142,453	49,975	7,762	15,190	Trailers and semitrailers.....	143	17	3	10
Cost of materials, fuel, electricity, and contract work.....	(1)	\$212,245	(1)	\$35,798					
Materials, parts, containers, and supplies.....	(1)	187,120	(1)	30,769					
Fuels, total.....	\$2,842	2,345	\$257	308					
Bituminous coal.....	473	818	29	52					
Anthracite.....	6	1		3					
Coke.....				2					
Fuel oils.....	1,011	814	50	36					
Gas.....	809	300	100	143					
Other fuels.....	543	412	78	6					

¹ See text for explanation of omission of figures for cost of materials, etc.

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A ^d appears in the column where the figure has been omitted and the combined figure is printed in italics]

INDUSTRY AND ITEM	Total, all establishments	Establishments with an average of—									
		1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 employees	2,500 employees and over
Aircraft:											
Number of establishments.....	58	4	2	2	6	4	6	4	9	17	
Number of employees (average for the year).....	146,625	12	(^d)	36	235	323	946	1,792	3,009	11,266	
Value added by manufacture.....	\$605,983	\$34	(^d)	\$129	\$1,371	\$1,572	\$3,695	\$9,182	\$10,960	\$41,608	
Aircraft engines:											
Number of establishments.....	57	5	4	8	7	2	10	4	10	6	
Number of employees (average for the year).....	50,253	11	26	118	219	(^d)	1,783	1,360	6,933	39,803	
Value added by manufacture.....	\$251,158	\$95	\$81	\$447	\$1,232	(^d)	\$9,453	\$5,843	\$31,667	\$202,340	
Aircraft propellers:											
Number of establishments.....	13	1	3		2	2	2		2	1	
Number of employees (average for the year).....	7,423	(^d)	21		(^d)	519	(^d)		(^d)	6,883	
Value added by manufacture.....	\$26,685	(^d)	\$88		(^d)	\$1,658	(^d)		(^d)	\$25,029	
Aircraft equipment, n. e. c.:											
Number of establishments.....	204	41	35	43	40	15	18	3	4	5	
Number of employees (average for the year).....	15,310	88	225	631	1,273	985	2,476	890	2,895	5,857	
Value added by manufacture.....	\$70,749	\$458	\$1,140	\$2,927	\$5,849	\$4,146	\$11,034	\$2,930	\$15,383	\$26,882	

CENSUS OF MANUFACTURES: 1947

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947

[The first column shows the total value of shipments of the specified industry, divided among: (A) products classified in (primary to) the industry, (B) products classified in other industries (secondary to the specified industry), and (C) miscellaneous receipts. The second column shows the value of shipments of the primary products of the specified industry reported by establishments in other industries. The third column shows the total value of shipments of the primary products of the specified industry by all reporting manufacturers]

[Money figures in thousands of dollars]

AIRCRAFT INDUSTRY	Shipped by—			AIRCRAFT ENGINES INDUSTRY	Shipped by—		
	Aircraft industry	Other industries	All industries		Aircraft engines industry	Other industries	All industries
Total shipments by the industry	(¹)	(¹)	(¹)	Total shipments by the industry	\$463,403		
A. Aircraft.....	(¹)	(¹)	(¹)	A. Aircraft engines and engine parts.....	416,702	\$10,865	\$436,567
Military type aircraft.....	\$265,328		\$265,328	Aircraft engines.....	(²)	(²)	237,078
Personal type civil aircraft.....	57,020		57,020	Aircraft engine parts and accessories; experimental and research work on engines.....	(²)	(²)	199,489
Commercial type aircraft.....	122,073		122,073	B. Secondary products.....	43,730		
B. Secondary products.....	102,509			Aircraft parts and auxiliary equipment, n. e. c.....	6,886		
Aircraft parts and auxiliary equipment, n. e. c.....	96,453			Other secondary products.....	36,844		
Other secondary products.....	6,056			C. Miscellaneous receipts.....	2,971		
C. Miscellaneous receipts.....	3,581			Scrap and salable refuse.....	1,670		
Scrap and salable refuse.....	2,113			Other.....	1,292		
Other.....	1,468						

AIRCRAFT EQUIPMENT, N. E. C., INDUSTRY	Shipped by—			AIRCRAFT PROPELLERS INDUSTRY	Shipped by—		
	Aircraft equipment, n. e. c., industry	Other industries	All industries		Aircraft propellers industry	Other industries	All industries
Total shipments by the industry	\$106,547			Total shipments by the industry	(¹)		
A. Aircraft parts and auxiliary equipment, n. e. c.....	82,476	\$132,970	\$215,446	A. Aircraft propellers and propeller parts.....	\$35,113	\$3,871	\$38,984
B. Secondary products.....	19,171			B. Secondary products.....	2,997		
Aircraft engine parts and accessories.....	2,846			C. Miscellaneous receipts.....	(¹)		
Other secondary products.....	16,325						
C. Miscellaneous receipts.....	4,900						
Contract and commission work.....	3,304						
Nonmanufacturing activities.....	1,032						
Other.....	564						

¹ See text for explanation of omission of these figures.² Not shown to avoid disclosing figures for individual companies.

TABLE 6-A.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	1947		1939		PRODUCT	1947		1939	
	Total shipments and interplant transfers		Total production for sale and interplant transfer			Total shipments and interplant transfers		Total production for sale and interplant transfer	
	Number	Value f.o.b. plant	Number	Value f.o.b. plant		Number	Value f.o.b. plant	Number	Value f.o.b. plant
Military type aircraft.....	2,100	\$265,328	¹ 921	n.a.	Aircraft engine parts and accessories; experimental and research work on engines, total.....		\$190,480		
Personal type civil aircraft (under 3,000 pounds airframe weight).....	15,591	57,020	(¹)	n.a.	Aircraft engine parts and accessories:				
Commercial type civil aircraft (3,000 pounds airframe weight and over).....	279	122,073	14,935		For United States military customers.....		74,734		n.a.
Modifications, conversions, and overhaul of previously accepted or delivered aircraft, total.....					For other than United States military customers.....		61,709		
Military.....		28,203			Experimental and research work on aircraft engines.....		63,046		
Civil.....		11,173			Aircraft propellers and propeller parts.....	43,851	38,984		\$14,514
Aircraft engines, total.....		237,078		\$74,282	Aircraft parts and auxiliary equipment, not elsewhere classified.....		215,446		37,223
For United States military customers.....	(¹)	187,758		n.a.					
For other than United States military customers.....	16,351	49,320							

n.a.—Not available.

¹ The 1939 Census of Manufactures reporting form did not collect comparable data on number of aircraft. The source of these figures is the "Civil Aeronautics Administration Statistical Handbook of Civil Aviation, 1948."² Figures are largely billings or receipts rather than value of products shipped.³ Data on total engine acceptances by U. S. military customers not available. Acceptances of military conventional (other than jet) aircraft engines amounted to 2,683. The value figure includes both conventional and jet engines.⁴ Includes shipments of engines for non-man-carrying aircraft and billings for experimental work, research studies, and other services. Experimental work for which payments were not received are not included.⁵ Includes a small amount of pontoons and parachutes.⁶ Number represents complete propeller assemblies. Separate value figures on propellers, propeller blades, and other propeller parts are not available.

TABLE 6-B.—NUMBER, AIRFRAME WEIGHT, AND VALUE OF AIRCRAFT SHIPPED, BY NUMBER OF PLACES, HORSEPOWER, AND TYPE OF PLANE: 1947

[Money figures in thousands of dollars; airframe weight in thousands of pounds]

PRODUCT	Number	Airframe weight	Value	PRODUCT	Number	Airframe weight	Value
Complete aircraft, total	17,970	29,328	\$444,421	Civil aircraft—Continued			
Military aircraft.....	2,100	11,402	265,328	By horsepower of all engines:			
Civil aircraft, total.....	15,870	17,926	179,093	1-74 horsepower.....	3,371	1,720	\$6,955
By number of places:				75-99 horsepower.....	3,953	2,242	10,022
2-place.....	7,534	4,140	18,866	100-399 horsepower.....	8,238	7,435	38,641
3-to 5-place.....	8,057	7,334	38,154	400 horsepower and over.....	308	6,529	123,475
Over 5-place.....	279	6,452	122,073	By type of plane:			
				Personal.....	15,591	11,474	57,070
				Commercial.....	279	6,452	122,073

NOTE: Complete aircraft includes all man-carrying airplanes, balloons, airships, gliders, helicopters, and autogiros shipped in either assembled or knocked-down condition.

TABLE 7.—SELECTED MATERIALS CONSUMED, BY KIND: 1947

[The table below summarizes the consumption of selected metal shapes by manufacturers during 1947. For each shape, manufacturing establishments were required to report consumption, in quantity and cost, provided that such usage during 1947 exceeded the following amounts: for iron castings, steel castings, each of six carbon steel shapes—50 short tons; for alloy steel bars and all other alloy steel—25 short tons; for stainless steel, brass and copper wire mill shapes, copper and brass castings, aluminum mill shapes and aluminum castings—10 short tons]

[Money figures in thousands of dollars]

METAL SHAPE	AIRCRAFT INDUSTRY			AIRCRAFT ENGINE INDUSTRY			AIRCRAFT EQUIPMENT, N.E.C., INDUSTRY		
	Establishments consuming more than specified quantities								
	Number	Consumption		Number	Consumption		Number	Consumption	
		Short tons	Cost		Short tons	Cost		Short tons	Cost
Iron castings, rough and semifinished.....	(1)			(1)	14,614	\$2,700			
Steel castings, rough and semifinished.....	(1)	170	\$52	(1)	257	359			
Steel mill shapes and forms.....	n.a.	17,950	6,264	n.a.	22,992	11,320	n.a.	5,581	\$1,579
Carbon steel:									
Bars and bar shapes.....	11	2,034	310	5	3,449	380	8	1,421	225
Sheet and strip.....	7	3,888	336	(1)	2,468	302	5	515	78
Structural shapes.....	8	1,413	146	(1)	(?)	(?)	(1)	600	112
Plates.....	8	1,126	113	(1)	433	63	(1)	(?)	(?)
Wire.....	9	3,558	657	(1)	1,201	217	(1)	400	106
All other mill shapes and forms.....									
Alloy steel, except stainless:									
Bars and bar shapes.....	15	1,093	570	12	6,566	2,746	9	1,701	415
All other mill shapes and forms.....	12	1,143	971	(1)	591	369	7	455	170
Stainless steel.....	21	3,095	3,161	14	8,284	7,243	8	489	473
Copper and copper-base alloy:									
Brass and wire mill shapes and forms.....	6	195	172	5	168	155	7	128	121
Castings, rough and semifinished.....	(1)	65	129	(1)	76	77			
Aluminum:									
Aluminum mill shapes.....	29	26,230	20,944	10	2,359	2,934	15	1,012	841
Castings, rough and semifinished.....	13	1,211	2,491	10	3,019	4,568	5	105	331

n.a.—Not available.

1 Less than 5 establishments.

2 Combined with all other carbon steel mill shapes and forms to avoid disclosing figures for individual companies.

TABLE 8.—NUMBER OF ESTABLISHMENTS PERFORMING SELECTED METALWORKING OPERATIONS: 1947

[The figures in the table represent the number of establishments maintaining the metalworking operation specified, according to the usual number of production workers employed in the operation during 1947]

METALWORKING OPERATION	AIRCRAFT INDUSTRY					AIRCRAFT ENGINE INDUSTRY						
	Number of establishments performing selected metalworking operations											
	Total	Distribution by number of production workers in the operation					Total	Distribution by number of production workers in the operation				
		1-4	5-19	20-49	50-99	100 and over		1-4	5-19	20-49	50-99	100 and over
Foundry.....	15	6	6	2	1	7	3	1	1	1		
Die casting.....	4	3	1			2	2					
Forging—presses, hammers, or upsetters.....	8	2	1	1		16	9	1		1		
Electroplating.....	24	12	6	4	1	5	4					
Galvanizing and other hot dip coating.....	9	5	1	2		24	10	3		1		
Heat treating or annealing of metals.....	33	15	10	7								
Automatic screw machine department.....	15	8	4	2	1	18	6	4	3	3		
Machine shop.....	51	8	6	13	5	19	4	10	8	16		
Tool and die room.....	35	4	6	4	9	12	6	6	6	6		
Pattern shop.....	23	6	7	7	2	10	5	3	2			
Plate or structural fabrication.....	32	9	3	2	4	4	1	2	1			
Stamping, blanking, forming, or drawing.....	43	7	7	8	5	16	3	4	6			

NOTE: In the Aircraft Industry 6 establishments did not answer this inquiry. Of these, 4 had fewer than 20 employees; 1 had between 20 and 99 employees; and 1 had 100 or more employees.
In the Aircraft Engine Industry, 8 establishments did not answer this inquiry. Of these, 4 had fewer than 20 employees; 3 had between 20 and 99 employees; and 1 had 100 or more employees.

SHIP AND BOAT BUILDING; RAILROAD AND MISCELLANEOUS TRANSPORTATION EQUIPMENT

This report shows 1947 Census of Manufactures statistics for establishments engaged primarily in the production of ships, boats, locomotives, railroad and street cars, motorcycles, bicycles, and transportation equipment, not elsewhere classified. These establishments have been classified in six industries, described separately below.

Ship Building and Repairing (*Standard Industrial Classification No. 3731.*)—This industry comprises establishments primarily engaged in building and repairing all types of ships, barges, canal boats, and lighters of more than 65 feet in length, whether propelled by sail or motor power or towed by other craft. Establishments primarily engaged in fabricating structural assemblies or components for ships, or subcontractors engaged in ship painting, joinery, carpentry work, electrical wiring installation, etc., are not classified in this industry. Shipyards engaged in repair work, either exclusively or as their major activity, are included.

Although the Standard Industrial Classification defines ships as five gross tons and over, it was found after consultation with industry representatives that the separation between ships and boats would more appropriately be made at 65 feet in length. This latter method was used in distinguishing these industries in the 1947 census. In the 1939 census five gross tons was used as the separation point. Therefore, the 1947 and 1939 data are not strictly comparable. A special table has been included showing a total for the two industries, Ship Building and Repairing and Boat Building and Repairing, combined as far back as 1899. The data from 1899 through 1919 included data for shipyards operated by the Federal Government. For subsequent years statistics for such shipyards have not been included.

The data shown in tables 1, 2, and 5 for this industry on value of shipments actually represent value of work done. This provides a more adequate measure of the activity in the industry than value of vessels completed and delivered, because of the length of the production cycle, which may be several years for some vessels. Value of shipments (deliveries) would result in a distortion for establishments working on a vessel all year but not completing it during the year or, conversely, for establishments completing a vessel during a year when most of the work was performed in previous years. Respondents were instructed to compute value of work done by estimating the percentage of completion during 1947, by reporting net billings for work done during 1947, or by reporting payments received for work done during 1947.

The major specifications of each self-propelled vessel were reported separately, which permitted the tabulation of ship building data in several ways. Table 6-B includes statistics by type of vessel, by type of propulsion, and by gross tonnage classes, for self-propelled vessels. In this table separate data are shown for vessels worked on during the year and for vessels completed and delivered during 1947. In addition, data are included for nonpropelled vessels, such as barges, dredges, etc., in table 6-C.

Boat Building and Repairing (*Standard Industrial Classification No. 3732.*)—This industry comprises establishments primarily engaged in building and repairing all types of boats of 65 feet or less in length, such as motorboats, sailboats, rowboats, lifeboats, and canoes.

Although the Standard Industrial Classification specifies five gross tons as the dividing point between the Ship Building Industry and the Boat Building Industry, in the 1947 Census of Manufactures 65 feet in length was used upon the recommendation of the industry. The Boat Building and Repairing

Industry, therefore, covers seagoing craft of 65 feet or less in length. The reporting form for 1939 was set up in a manner which does not permit the retabulation of 1939 data comparable with those for 1947. However, a table has been included showing comparable data from 1899 through 1947 for the ship building and boat building industries combined. The data from 1899 through 1919 included shipyards operated by the Federal Government. For subsequent years these have not been included.

Establishments engaged exclusively in repair work on boats were included if they had more than 10 employees and were excluded if they had 10 or fewer employees. Establishments performing primarily boat repair work with 10 or less employees were included if their other activity included the building of boats. It is believed, however, that some of these small establishments may not have been covered in the census. Establishments whose primary activity was the servicing of boats, i.e., the rental of dock space, cleaning, storage, etc., or which were yacht clubs, were excluded even if their other activities included boat building. While these exclusions result in an understatement of the number and dollar value of boats shipped during 1947, it is not believed that the undercoverage is serious.

Of the total value of \$109.0 million of boat building and repairing, 12 percent was done by establishments classified in other industries. Establishments classified in the Boat Building and Repairing Industry had \$96.3 million of boat building and repairing and \$19.0 million of other products such as self-propelled ships, construction and mining machinery, and general industry machinery.

Locomotives and Parts (*Standard Industrial Classification No. 3741.*)—This industry comprises establishments primarily engaged in building and rebuilding locomotives (including frames and parts) of any type or gauge, including steam, compressed air, straight-electric, storage battery, Diesel-electric, gasoline-electric, and Diesel-mechanical. Railroad repair shops engaged in building and rebuilding locomotives are classified in nonmanufacturing industries.

In the 1947 census, operating railroads were requested to submit a full census report—employment, man-hours, inventories, etc.—for shops engaged only in building or rebuilding locomotives or railroad cars or, if also engaged in repair work, when the building or rebuilding constituted the major activity of the shop. In 1947 there were no railroad shops in which the manufacture of locomotives was the principal activity. However, for those railroad repair shops which also built or rebuilt locomotives during 1947, data were received on the new or rebuilt locomotives shipped, and are included with those for manufacturing establishments in tables 5 and 6-A. No data are available on the rebuilding of locomotives in 1939. The extent to which these nonmanufacturing establishments affect the data in tables 5 and 6-A is shown as a footnote to table 5. The comparable data for 1939, shown in table 6-A, include the building of new locomotives and tenders by railroad repair shops as well as builders of new locomotives and tenders.

Locomotives were classified as railroad locomotives if they met Interstate Commerce Commission requirements for locomotives operating on railroad or railway track subject to I.C.C. regulation or, if for export, they had the construction, equipment and safety devices usually associated with railroad equipment. All other locomotives were classified as industrial or mining locomotives. A separate classification for switching locomotives was not shown in 1939 but is shown for 1947. This classification generally includes locomotives which have been shipped to operating railroads. Locomotives for switching use shipped to industrial users have been generally reported under industrial and mining locomotives.

Of the total value of \$395.9 million of locomotives and parts, 17 percent was shipped by establishments classified in other industries.

Railroad and Street Cars (*Standard Industrial Classification No. 3742.*)—This industry comprises establishments primarily engaged in building and rebuilding railroad, street, and rapid-transit cars, and car equipment for operation on rails for freight and passenger service. This industry also includes establishments primarily engaged in manufacturing trackless trolley busses and industrial rail cars (not suitable for carrier use). Establishments primarily engaged in manufacturing mining cars are classified in Industry 3531. Railroad repair shops engaged in building and rebuilding railroad cars are classified in nonmanufacturing industries.

In the census, operating railroads were requested to submit a full census report—employment, man-hours, inventories, etc.—for shops engaged only in building or rebuilding railroad cars, or if also engaged in repair work, when the building or rebuilding constituted the major activity of the shop. In a few cases where separate records were maintained, reports were received covering only the manufacturing activities (car building and rebuilding) of the shop. In 1947, there were 10 shops of railroads or operating lines whose major activity was the building or rebuilding of railroad cars and which submitted complete reports covering their manufacturing activities. In addition, for those railroad repair shops which also built or rebuilt railroad cars during 1947 but not as a major activity, data were received on new or rebuilt cars shipped, and are included with those for manufacturing establishments in tables 5 and 6-A. The extent to which these nonmanufacturing activities affect tables 5 and 6-A are shown as a footnote to table 5. The commodity data for 1939 shown in table 6-A include the building of new railroad cars by railroads and operating lines as well as by car builders. However, no data are available on the rebuilding of railroad cars in 1939.

Motorcycles and Bicycles (*Standard Industrial Classification title and number: Motorcycles, Bicycles, and Parts, 3751.*)—This industry comprises establishments primarily engaged in manufacturing motorcycles and side cars; motor scooters; bicycles; and motorcycle and bicycle parts such as saddles, seat posts, frames, gears, and handlebars. Establishments assembling motorcycles or bicycles from purchased parts are also

included in this industry. Establishments primarily engaged in manufacturing children's vehicles are classified in Industry 3943.

The total value of shipments for the industry includes duplication to the extent that parts and accessories are used by other establishments in the industry for assembly into complete units. Many of the parts and accessories, however, are sold to dealers or to consumers as additional equipment or for replacement. The extent of duplication in value of shipments and cost of materials is not known.

Of the total value of \$159 million of motorcycles, bicycles, and parts, 11 percent was shipped by establishments classified in other industries. Establishments classified in the Motorcycles, Bicycles, and Parts Industry shipped \$141 million of motorcycles, bicycles, and parts and \$21 million of other products, such as children's vehicles, electric fans, job stampings, etc.

Transportation Equipment, Not Elsewhere Classified (*Standard Industrial Classification No. 3799.*)—Establishments primarily engaged in manufacturing transportation equipment, not elsewhere classified, such as horse-drawn vehicles (farm wagons and trucks, carriages, sleighs, and sleds) and parts; and wheelbarrows and pushcarts. Establishments primarily engaged in manufacturing industrial trucks, tractors, trailers, and stackers are classified in Industry 3565, and children's vehicles in Industry 3943.

Figures on the shipments of farm wagons, trucks, and other farm transportation equipment are collected on an annual basis by the Bureau of the Census on Form M35A. The data shown in table 6-A for 1947 are from the annual survey, but include revisions obtained in the Census of Manufactures.

Data on wheelbarrows are collected by the Bureau of the Census in an annual survey on Form M49A. The data shown in table 6-A are from this annual survey.

Of the total value of \$52 million of transportation equipment, not elsewhere classified, 36 percent was shipped by establishments classified in other industries. Establishments classified in the Transportation Equipment, Not Elsewhere Classified, Industry shipped \$34 million of transportation equipment, not elsewhere classified, and \$12 million of other products such as truck trailers, wheels, stampings, etc.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
731 Ship building and repairing: 1947	301	130,200	\$415,828	114,718	\$350,836	\$517,504	\$281,440	\$708,944
732 Boat building and repairing: 1947	809	19,455	51,757	17,315	43,535	69,054	48,937	117,991
Total for Ship building and repairing and Boat building and repairing:								
1947	1,110	149,655	467,585	132,033	394,371	586,558	330,377	916,935
1939	908	78,127	130,047	69,241	107,570	179,898	158,374	338,272
1937	544	69,837	112,977	62,274	93,746	149,045	101,412	250,457
1935	556	51,321	70,309	44,830	55,422	93,791	61,109	154,900
1933	395	34,733	41,384	30,885	33,890	61,524	31,172	92,696
1931	518	n.a.	n.a.	45,262	62,028	114,671	72,322	186,993
1929	624	61,024	103,992	55,089	88,274	145,451	85,849	231,300
1927	559	60,494	101,688	55,014	87,081	132,501	78,626	211,127
1925	565	55,383	87,324	50,224	74,275	110,883	66,299	177,182
1923	567	67,999	105,248	62,287	90,720	128,674	84,558	213,232
1921	640	114,257	179,844	106,445	155,943	231,466	169,368	400,834
1919	1,075	412,420	662,561	387,446	597,447	911,838	710,523	1,622,351
1914	1,147	47,475	37,690	44,489	32,931	50,085	38,597	88,682
1909	1,353	43,486	29,303	40,506	25,268	42,146	31,214	73,360
1904	1,047	33,224	32,581	50,754	29,241	45,306	37,463	82,789
1899	1,107	48,152	26,832	46,747	24,825	41,057	33,475	74,532

See footnotes at end of table.

CENSUS OF MANUFACTURES: 1947

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS—Continued

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Locomotives and parts:								
1947	36	30,337	\$97,608	25,368	\$78,131	\$142,477	\$212,229	\$354,706
1939 ⁵	20	n.a.	n.a.	6,998	10,486	23,450	27,903	51,353
1937	13	10,989	19,336	9,000	14,845	32,857	39,266	72,123
1935	14	4,734	5,925	3,790	3,972	7,890	9,493	17,383
1933	13	3,200	3,292	2,374	1,863	2,661	4,266	6,927
1931	16	n.a.	n.a.	5,443	5,590	7,248	14,871	22,119
1929	18	12,846	23,514	11,045	17,994	31,050	52,808	83,858
1927	17	14,611	22,632	12,961	17,648	31,031	45,688	76,719
1925	18	14,673	23,456	12,809	18,219	23,672	41,717	65,389
1923	19	33,583	58,591	30,672	51,867	91,131	124,262	156,393
1921	22	18,327	24,576	16,583	20,473	46,611	55,412	102,023
1919	17	28,741	43,577	26,715	38,799	83,894	72,376	156,270
1914	19	19,047	13,862	17,391	11,085	19,828	23,546	43,374
1909	16	16,938	11,211	14,909	8,914	16,622	15,060	31,582
1904	15	25,970	17,474	24,806	15,798	31,849	27,703	59,552
1899	28	n.a.	n.a.	19,039	10,900	15,035	20,174	35,209
Railroad and street cars:								
1947	86	60,779	185,944	50,323	146,736	273,130	452,717	725,847
1939	48	n.a.	n.a.	17,711	23,827	58,801	85,538	144,339
Motorcycles and bicycles:								
1947	76	15,615	45,661	13,659	37,732	72,838	90,832	163,670
1939	36	8,302	11,863	6,973	8,974	19,011	24,041	43,052
1937	29	7,816	10,076	6,938	8,207	16,251	19,793	36,044
1935	23	5,773	6,562	5,093	5,214	10,273	12,813	23,086
1933	19	3,433	3,204	3,038	2,639	5,893	6,162	12,055
1931	19	n.a.	n.a.	3,294	3,563	8,177	5,620	13,697
1929	21	5,114	8,019	4,392	6,284	12,614	11,281	23,895
1927	29	4,594	6,984	3,897	5,442	11,280	10,174	21,454
1925	36	4,962	7,317	4,193	5,662	12,081	12,177	24,258
1923	39	7,531	10,236	6,576	8,010	14,256	18,003	32,259
1921	46	5,213	6,921	4,308	4,981	12,775	10,323	23,098
1919	51	12,184	14,964	10,886	12,763	27,120	25,986	53,106
1914	78	7,706	5,913	6,680	4,739	11,906	10,928	22,234
1909	95	4,939	3,491	4,437	2,908	5,610	5,083	10,699
1904	101	3,680	2,322	3,319	1,971	2,525	2,628	5,153
1899	312	19,559	9,943	17,525	8,190	15,124	16,792	31,916
Transportation equipment, n.e.c.:								
1947	167	4,562	11,627	3,862	8,743	20,542	26,245	46,790
1939	41	1,543	1,725	1,252	1,150	3,145	3,124	6,269
1937	43	2,122	2,321	1,823	1,723	4,505	4,633	9,138
1935	45	1,858	1,767	1,592	1,284	3,162	3,683	6,845
1933	53	1,610	1,196	1,409	922	2,403	2,350	4,753
1931	70	n.a.	n.a.	1,321	1,199	2,666	2,494	5,160

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.² Figures for years prior to 1935 do not include cost of contract work.³ For "Ship building and repairing" the figures represent value of work done. For the other industries, the 1947 and 1929 figures represent value of products shipped, except in the case of "Locomotives and parts" for 1929 where they represent value of products made; for all other years, the figures for industries other than "Ship building and repairing" represent value of products made. See GENERAL EXPLANATIONS—Value of products shipped.⁴ Separate industry figures for earlier years comparable with the 1947 figures are not available for "Ship building and repairing" and "Boat building and repairing." However, by combining the data for the two industries comparable figures can be shown for the period 1899-1947.⁵ Revised.⁶ The returns for 1939 have been retabulated to provide figures comparable with those for 1947. No comparable figures are available for prior years.⁷ Figures for 1904 and 1899 include data for children's tricycles and velocipedes, whereas those for later years exclude data for these products.⁸ The figures for "Transportation equipment, n.e.c." prior to 1931 are not sufficiently comparable with those for later years to be shown in this table because they include data for horse-drawn lunch wagons.TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947
[Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers		Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total				
Ship building and repairing, total¹	301	130,200	\$415,828	114,718	234,103	\$517,504	\$281,440	\$798,944	\$8,982
New England	28	9,925	31,077	7,582	14,575	27,246	22,628	49,874	272
Massachusetts	16	5,254	17,708	3,703	7,128	11,106	18,742	29,662	102
Middle Atlantic	97	39,914	130,878	34,867	71,948	160,403	95,813	256,216	3,443
New York	62	17,291	56,093	15,651	32,100	47,692	74,735	39,845	1,613
New Jersey	24	16,131	53,881	13,639	28,617	42,760	36,379	98,625	1,060
Pennsylvania	11	6,492	20,904	5,577	11,231	17,042	23,422	19,589	770
North Central	16	2,546	8,041	2,148	4,382	6,207	6,077	15,746	372
Ohio	3	485	1,605	453	932	1,333	2,020	2,888	103
Michigan	4	601	2,163	482	918	1,516	1,132	2,753	71
Wisconsin	3	360	1,089	323	651	845	872	2,268	13
South Atlantic	48	31,345	100,058	27,800	58,629	86,858	120,372	196,804	2,908
Florida	13	3,164	8,336	2,803	5,763	7,448	12,944	24,319	83
East South Central	8	10,715	32,799	10,205	21,390	30,078	23,616	70,008	249
West South Central	39	11,242	32,771	10,208	20,383	28,527	46,808	64,782	715
Pacific	65	24,513	80,204	21,908	42,796	70,200	97,614	145,514	1,023
California	31	17,042	55,834	15,375	30,080	49,064	67,147	100,917	843

See footnotes at end of table.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947—Continued

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Boat building and repairing, total ¹	809	19,455	\$51,757	17,315	35,033	\$43,535	\$69,054	\$48,937	\$117,991	\$2,564
New England	139	2,126	5,031	1,897	3,862	4,301	6,710	4,188	10,898	210
Massachusetts	47	762	1,838	650	1,289	1,519	2,353	1,471	3,824	145
Middle Atlantic	142	5,069	14,952	4,392	8,906	11,855	19,370	12,128	31,498	517
New Jersey	56	2,243	6,657	1,871	3,696	4,982	8,072	6,459	14,531	202
North Central	152	4,057	10,036	3,725	7,907	8,803	13,951	14,150	28,101	673
Ohio	14	643	1,633	593	1,244	1,387	2,649	2,070	4,719	142
Illinois	11	215	639	192	388	536	967	364	1,331	15
Michigan	42	2,076	5,473	1,923	4,142	4,910	7,406	8,700	16,196	286
Wisconsin	42	573	1,204	514	1,053	1,022	1,515	1,398	2,913	119
Minnesota	22	245	508	220	491	431	682	388	1,070	65
South Atlantic	134	3,167	8,234	2,859	5,724	7,135	11,830	5,691	17,521	433
Virginia	21	186	474	175	350	433	912	237	1,149	51
North Carolina	8	246	627	213	435	491	735	563	1,298	74
Florida	62	1,973	5,239	1,798	3,603	4,637	7,631	3,212	10,843	236
East South Central	17	354	563	339	571	516	1,105	848	1,953	59
Mississippi	9	109	220	102	192	192	816	274	1,090	3
West South Central	48	2,641	6,675	2,260	4,447	5,507	7,193	6,605	13,798	453
Mountain	6	24	71	24	61	71	87	124	211	19
Pacific	171	2,017	6,195	1,819	3,655	5,347	8,808	5,203	14,011	200
Washington	67	619	1,812	559	1,080	1,593	2,147	1,405	3,552	98
Oregon	18	151	436	138	282	398	614	321	935	32
California	86	1,247	3,947	1,122	2,193	3,356	6,047	3,477	9,524	70
Locomotives and parts, total ¹	36	30,337	97,608	25,368	50,677	78,131	142,477	212,229	354,706	10,021
Ohio	7	404	1,095	323	691	821	2,049	1,394	3,443	72
Railroad and street cars, total ¹	86	60,779	185,944	50,323	101,184	146,736	273,130	452,717	725,847	11,660
New York	7	3,168	10,181	2,738	5,487	8,374	14,967	18,821	33,788	426
Ohio	7	3,363	10,284	2,815	5,909	8,310	15,785	28,002	43,787	737
Missouri	5	3,714	9,828	3,097	6,267	7,852	13,874	29,249	43,123	1,357
Motorcycles and bicycles, total ¹	76	15,615	45,661	13,659	28,245	37,732	72,838	90,832	163,670	4,600
New England	6	2,598	7,381	2,169	4,505	5,893	8,942	12,581	21,522	349
Middle Atlantic	12	1,149	2,926	1,050	2,136	2,522	5,138	5,568	10,706	125
New York	12	1,149	2,926	1,050	2,136	2,522	5,138	5,568	10,706	125
North Central	38	10,856	32,721	9,682	20,008	27,554	54,699	67,347	122,046	3,897
Ohio	11	4,378	14,187	3,967	7,916	11,887	25,384	31,646	57,030	1,025
Illinois	10	2,326	7,261	2,118	4,612	6,363	12,131	18,289	30,420	314
South and West	20	1,012	2,633	758	1,696	1,763	4,059	5,336	9,395	229
Transportation equipment, n.e.c., total ¹	167	4,562	11,627	3,862	8,428	8,743	20,542	26,248	46,790	1,227
Northeast and North Central	106	3,212	8,690	2,671	5,950	6,434	15,464	22,156	37,630	1,088
Ohio	11	262	615	229	491	488	966	2,082	3,028	42
Illinois	15	1,226	3,906	982	2,367	2,724	7,463	10,192	17,675	505
Wisconsin	11	104	239	87	169	192	543	521	1,064	(d) 19
Minnesota	9	134	345	112	235	268	523	704	1,227	91
Iowa	14	355	813	282	619	590	1,109	1,497	2,506	
South Atlantic	11	362	717	328	641	600	1,229	1,142	2,371	9
Virginia	4	145	278	134	255	213	402	455	857	5
North Carolina	4	205	424	187	370	378	803	670	1,473	1
East South Central	10	360	654	322	681	515	1,341	983	2,324	54
Tennessee	5	112	214	98	200	172	522	272	794	32
West South Central	16	217	368	200	421	321	903	648	1,551	40
Texas	8	87	152	79	139	128	301	268	589	10
West	24	411	1,198	341	735	873	1,605	1,309	2,914	36

¹ Withheld to avoid disclosing figures for individual companies.

² For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.

Ship building and repairing: New England, Maine, 5 (2,732); Vermont, 1; Rhode Island, 3; Connecticut, 3 (1,832); North Central, Indiana, 2; Illinois, 3 (174); Missouri, 1; South Atlantic, Delaware, 1; Georgia, 1; Maryland, 11 (31,528); Virginia, 18 (14,660); West Virginia, 2; South Carolina, 2; East South Central, Kentucky, 1; Tennessee, 1; Alabama, 4 (5,694); Mississippi, 2; West South Central, Louisiana, 21 (6,384); Texas, 18 (4,858); Pacific, Washington, 26 (5,255); Oregon, 8 (2,216).

Boat building and repairing: New England, Maine 57 (752); New Hampshire, 2; Rhode Island, 11; Connecticut, 22 (538); Middle Atlantic, New York, 32 (2,812); Pennsylvania, 4 (14); North Central, Indiana, 8 (44); Iowa, 2; Missouri, 10 (237); South Dakota, 1; Nebraska, 1; Kansas, 1; South Atlantic, Delaware, 2; Maryland, 29 (684); South Carolina, 3; Georgia, 9 (52); East South Central, Kentucky, 1; Tennessee, 2; Alabama, 5 (36); West South Central, Arkansas, 1; Louisiana, 23 (2,367); Oklahoma, 5; Texas, 19 (245); Mountain, Montana, 3 (17); Idaho, 1; Arizona, 2.

Locomotives and parts: New York, 4 (7,172); Pennsylvania, 4 (7,444); Indiana, 1; Illinois, 11 (12,205); Michigan, 2; Wisconsin, 2; Iowa, 1; Kansas, 1; Maryland, 1; Virginia, 2.

Railroad and street cars: Massachusetts, 1; New Jersey, 5 (632); Pennsylvania, 15 (23,523); Indiana, 9 (7,215); Illinois, 19 (10,269); Michigan, 6 (1,753); Wisconsin, 2; Minnesota, 2; Kansas, 1; Delaware, 1; West Virginia, 1; Georgia, 1; Alabama, 1; Colorado, 1; Washington, 1; California, 1.

Motorcycles and bicycles: New England, Massachusetts, 5; Connecticut, 1; North Central, Indiana, 2; Michigan, 3 (281); Wisconsin, 6 (2,329); Minnesota, 1; Iowa, 3 (212); Missouri, 1; Nebraska, 1; South and West, Maryland, 1; Kentucky, 1; Mississippi, 1; Louisiana, 1; Oklahoma, 1; California, 15 (460).

Transportation equipment, n.e.c.: Northeast and North Central, Vermont, 1; Connecticut, 1; New York, 1; Pennsylvania, 8 (229); Indiana, 7 (175); Michigan, 11 (387); Missouri, 12 (251); South Dakota, 1; Kansas, 4 (78); South Atlantic, Georgia, 2; Florida, 1; East South Central, Kentucky, 1; Mississippi, 4; West South Central, Arkansas, 4 (116); Louisiana, 2; Oklahoma, 2; West, Idaho, 1; Colorado, 1; Arizona, 1; California, 21 (149).

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947
 [Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS]

ITEM	Industry					
	Ship building and repairing	Boat building and repairing	Locomotives and parts	Railroad and street cars	Motorcycles and bicycles	Transportation equipment, n.e.c.
ALL ESTABLISHMENTS						
Number of establishments.....	301	809	36	86	76	167
All employees:						
Number (average for the year).....	130,200	19,455	30,337	60,779	15,615	4,562
Salaries and wages, total.....	\$415,828	\$51,757	\$97,608	\$185,944	\$45,661	\$11,627
Production and related workers:						
Number (average for the year).....	114,718	17,315	25,368	50,323	13,659	3,862
Man-hours, total..... thousands.....	234,103	35,033	50,677	101,184	28,245	8,428
Wages, total.....	\$350,836	\$43,535	\$78,131	\$146,736	\$37,732	\$8,743
Value added by manufacture.....	\$517,504	\$69,054	\$142,477	\$273,130	\$72,838	\$20,542
ESTABLISHMENTS REPORTING DETAILED STATISTICS						
Number of establishments.....	301	470	36	86	76	100
All employees:						
Number (average for the year).....	130,200	17,916	30,337	60,779	15,615	4,255
Salaries and wages, total.....	\$415,828	\$48,344	\$97,608	\$185,944	\$45,661	\$11,042
Production and related workers:						
Number (average for the year).....	114,718	15,855	25,368	50,323	13,659	3,580
Man-hours, total..... thousands.....	234,103	32,121	50,677	101,184	28,245	7,864
Wages, total.....	\$350,836	\$40,395	\$78,131	\$146,736	\$37,732	\$8,219
Value added by manufacture.....	\$517,504	\$64,532	\$142,477	\$273,130	\$72,838	\$19,570
Number of employees for pay period ended nearest Oct. 15:						
All employees.....	106,755	15,166	30,362	61,923	16,367	4,002
Male.....	103,668	14,494	28,281	58,407	13,520	3,709
Female.....	3,087	672	2,081	3,516	2,847	293
Production and related workers.....	92,951	13,166	25,563	51,326	14,353	3,345
Male.....	92,716	13,080	24,655	50,400	12,209	3,271
Female.....	235	77	908	926	2,144	74
Force-account construction workers.....	17	8	14	1	1	—
Administrative, supervisory, sales, and all other.....	13,787	1,992	4,785	10,597	2,013	657
Male.....	10,935	1,397	3,612	8,007	1,310	438
Female.....	2,852	595	1,173	2,590	703	219
All employees, number by month:						
January.....	152,858	17,595	31,567	57,851	14,417	4,581
February.....	151,292	18,347	32,071	58,407	14,790	4,528
March.....	150,443	19,711	31,222	59,359	15,147	4,582
April.....	152,738	20,795	30,569	60,752	14,979	4,580
May.....	150,358	20,369	29,196	60,400	15,296	4,283
June.....	148,483	20,348	29,721	60,464	15,667	4,294
July.....	98,927	18,882	28,470	60,734	15,618	4,138
August.....	97,030	16,821	29,108	60,798	15,981	3,985
September.....	102,992	15,689	29,740	61,827	16,174	4,053
October.....	106,755	15,166	30,362	61,923	16,367	4,002
November.....	120,488	14,701	30,716	63,357	16,392	3,981
December.....	129,899	16,319	31,289	63,433	16,518	3,973
Cost of materials, fuel, electricity, and contract work.....	\$281,440	\$45,091	\$212,229	\$452,717	\$90,832	\$25,035
Materials, parts, containers, and supplies.....	263,406	43,193	208,664	444,183	88,007	24,452
Fuels, total.....	4,021	662	1,988	5,000	473	189
Bituminous coal.....	936	16	960	1,014	161	83
Anthracite.....	64	12	150	205	9	19
Coke.....	124	12	686	1,817	143	51
Fuel oils.....	2,001	314	686	1,817	143	51
Gas.....	292	24	101	658	153	29
Other fuels.....	604	60	1	121	7	7
Purchased electric energy.....	6,074	901	1,453	2,528	591	241
Contract and commission work.....	7,939	435	124	1,006	861	153
Value of inventories:						
Beginning of year, total.....	\$115,755	\$25,309	\$87,614	\$193,553	\$18,937	\$8,408
Finished products.....	3,631	2,811	11,751	10,349	4,905	1,060
Materials, supplies, and work in process.....	112,124	22,498	75,863	183,204	14,032	7,348
End of year, total.....	135,572	27,188	114,010	235,136	24,052	8,747
Finished products.....	5,872	4,068	14,268	12,812	6,122	1,270
Materials, supplies, and work in process.....	129,700	23,120	99,742	222,324	17,930	7,477
Expenditures for plant and equipment:						
New plant and equipment.....	\$8,982	\$2,564	\$10,021	\$11,660	\$4,600	\$1,227
Construction and major alteration of fixed plants.....	3,696	1,581	3,321	3,869	2,073	411
Buildings.....	1,634	1,044	2,743	3,441	2,044	391
Other construction.....	2,062	537	578	428	29	20
Machinery and equipment.....	5,286	983	6,700	7,791	2,527	816
Production machinery and equipment.....	4,393	752	6,151	7,317	2,251	649
Other machinery and equipment.....	893	231	549	474	276	167
Used plant and equipment, and land.....	2,456	816	1,465	2,751	918	155
Number of highway-type motor vehicles owned or leased:						
Trucks.....	987	371	94	156	54	87
By manufacturer's rated capacity:						
Under 1 1/4 tons.....	339	196	16	35	15	35
1 1/4 tons.....	364	110	28	75	30	39
Over 1 1/4 tons and less than 3 1/2 tons.....	201	47	13	29	9	5
3 1/2 tons and less than 5 tons.....	39	10	10	5	—	6
5 tons and over.....	54	8	27	12	—	2
By body type:						
Van.....	10	4	—	—	3	—
Stake or platform.....	487	165	62	83	31	50
Panel or light delivery.....	294	118	16	34	16	29
All other trucks.....	196	84	16	39	4	8
Truck tractors.....	39	34	7	19	5	9
Trailers and semitrailers.....	80	40	25	23	8	12

SHIP AND BOAT BUILDING; RAILROAD AND MISC. TRANSPORTATION EQUIP. 769

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A ^d appears in the column where the figure has been omitted and the combined figure is printed in italics]

INDUSTRY AND ITEM	Total, all establishments	Establishments with an average of—									
		1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 employees	2,500 employees and over
Ship building and repairing:											
Number of establishments.....	301	15	15	25	64	38	67	24	20	19	14
Number of employees (average for the year).....	130,290	37	106	352	2,057	2,821	10,534	8,631	13,466	33,479	68,717
Value added by manufacture.....	\$617,504	\$354	\$469	\$1,319	\$9,342	\$13,747	\$48,484	\$36,631	\$55,364	\$119,104	\$232,690
Boat building and repairing:											
Number of establishments.....	809	374	152	119	90	42	21	5	4	2	-----
Number of employees (average for the year).....	19,455	774	995	1,679	2,722	2,820	3,198	1,604	5,683	(^d)	-----
Value added by manufacture.....	\$69,054	\$2,547	\$2,983	\$5,328	\$10,401	\$10,539	\$11,859	\$6,515	\$18,882	(^d)	-----
Locomotives and parts:											
Number of establishments.....	36	2	2	2	5	8	6	4	3	1	3
Number of employees (average for the year).....	30,337	(^d)	(^d)	37	140	542	881	1,315	1,683	(^d)	35,739
Value added by manufacture.....	\$142,477	(^d)	(^d)	\$234	\$821	\$2,759	\$5,078	\$5,831	\$5,937	(^d)	\$121,817
Railroad and street cars:											
Number of establishments.....	86	7	5	7	11	8	7	10	10	16	5
Number of employees (average for the year).....	60,779	18	28	97	400	581	1,195	3,921	8,064	23,785	22,689
Value added by manufacture.....	\$273,130	\$103	\$334	\$529	\$2,318	\$3,764	\$6,864	\$26,248	\$32,414	\$109,351	\$91,205
Motorcycles and bicycles:											
Number of establishments.....	76	16	14	6	10	5	11	4	4	6	-----
Number of employees (average for the year).....	15,615	31	91	83	305	337	1,719	1,198	2,863	8,988	-----
Value added by manufacture.....	\$72,838	\$200	\$341	\$265	\$1,197	\$1,316	\$8,537	\$5,210	\$14,850	\$40,922	-----
Transportation equipment, n.e.c.:											
Number of establishments.....	167	59	29	29	28	13	7	1	1	-----	-----
Number of employees (average for the year).....	4,562	128	175	387	949	797	2,128	(^d)	(^d)	-----	-----
Value added by manufacture.....	\$20,542	\$378	\$686	\$1,634	\$4,026	\$2,909	\$10,909	(^d)	(^d)	-----	-----

CENSUS OF MANUFACTURES: 1947

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947

[The first column shows the total value of shipments of the specified industry, divided among: (A) products classified in (primary to) the industry, (B) products classified in other industries (secondary to the specified industry), and (C) miscellaneous receipts. The second column shows the value of shipments of the primary products of the specified industry reported by establishments in other industries. The third column shows the total value of shipments of the primary products of the specified industry by all reporting manufacturers]

[Money figures in thousands of dollars]

SHIP BUILDING AND REPAIRING INDUSTRY	Shipped by—			RAILROAD AND STREET CARS INDUSTRY	Shipped by—		
	Ship building and repairing industry	Other industries	All industries		Railroad and street cars industry	Other industries	All industries
Total shipments by the industry	\$798,944			Total shipments by the industry	\$725,847		
A. Ship building and repairing.....	736,139	\$20,371	\$756,510	A. Railroad and street cars.....	648,317	\$64,952	\$713,269
Nonpropelled ships.....	21,294	4,255	25,549	Passenger train cars.....			77,779
Self-propelled ships.....	181,137	3,040	184,177	Freight train cars and industrial rail cars.....	425,878	44,598	392,695
Ship repairing.....	532,114	12,654	544,768	Self-propelled cars; street, rapid-transit, and interurban cars.....	28,535	7,900	34,495
Ship building and repairing, not reported separately.....	1,594	422	2,016	Parts for railroad and street cars.....	195,004	12,398	208,300
B. Secondary products.....	48,827			B. Secondary products (gray-iron castings, steel forgings, domestic heating stoves, construction and mining machinery, motor vehicle bodies and parts, etc.).....	64,690		
Boat building and repairing.....	9,633			Miscellaneous receipts.....	12,840		
Other secondary products (fabricated structural steel, fabricated steel plate, textile machinery, petroleum refinery machinery and equipment, etc.).....	39,194			Repair work.....	7,634		
C. Miscellaneous receipts.....	13,678			Scrap and salable refuse.....	3,470		
Contract and commission work.....	4,837			Nonmanufacturing activities.....	1,436		
Scrap and salable refuse.....	4,632						
Nonmanufacturing activities.....	4,609						

BOAT BUILDING AND REPAIRING INDUSTRY	Shipped by—			MOTORCYCLES AND BICYCLES INDUSTRY	Shipped by—		
	Boat building and repairing industry	Other industries	All industries		Motorcycles and bicycles industry	Other industries	All industries
Total shipments by the industry	\$117,991			Total shipments by the industry	\$163,670		
A. Boat building and repairing.....	96,323	\$12,714	\$109,037	A. Motorcycles, bicycles, and parts.....	140,717	\$17,935	\$158,652
Boat building.....	67,633	7,646	75,279	Motorcycles, motorbikes, motor scooters, and parts.....	38,876	2,427	41,303
Boat repairing.....	29,725	4,663	34,378	Bicycles and parts.....	101,841	15,508	117,349
Boat building and repairing, not reported separately.....	8,965	415	9,380	B. Secondary products (children's vehicles, electric fans, job stampings, etc.).....	20,984		
B. Secondary products.....	18,018			C. Miscellaneous receipts.....	1,969		
Self-propelled ships.....	2,954						
Ship repairing.....	8,661						
Other secondary products (construction and mining machinery, general industry machinery, etc.).....	7,403						
C. Miscellaneous receipts.....	2,650						

LOCOMOTIVES AND PARTS INDUSTRY	Shipped by—			TRANSPORTATION EQUIPMENT, NOT ELSEWHERE CLASSIFIED, INDUSTRY	Shipped by—		
	Locomotives and parts industry	Other industries	All industries		Transportation equipment, n.e.c., industry	Other industries	All industries
Total shipments by the industry	\$354,706			Total shipments by the industry	\$46,790		
A. Locomotives and parts.....	330,141	\$65,783	\$395,924	A. Transportation equipment, not elsewhere classified.....	33,544	\$18,496	\$52,040
B. Secondary products (Diesel engines and parts, boiler shop products, non-ferrous castings, etc.).....	16,223			B. Secondary products (truck trailers, wheels, stampings, etc.).....	11,905		
C. Miscellaneous receipts.....	8,342			C. Miscellaneous receipts.....	1,341		
Contract and commission work.....	1,246						
Repair work.....	4,960						
Scrap and salable refuse.....	2,136						

¹ Practically all of this total represents value of locomotives and parts shipped by other manufacturers. Only a very small portion (less than 5 percent) of this total represents value of locomotives produced in railroad shops (see text).

² Combined to avoid disclosing figures for individual companies.

³ Of this total \$41,378,000 represents value of passenger and freight train cars produced in railroad shops; \$3,218,000 represents value of passenger, freight train, and industrial rail cars shipped by other manufacturers.

SHIP AND BOAT BUILDING; RAILROAD AND MISC. TRANSPORTATION EQUIP. 771

TABLE 6-A.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	1947		PRODUCT	1947	
	Number of vessels worked on ¹	Value of work done ¹		Number of vessels worked on ¹	Value of work done ¹
Ship building and ship repairing, total		\$756,510	Ship building and ship repairing—Continued		
Ship building—self-propelled vessels		184,177	Ship repairing—Continued		
Nonmilitary	318	132,009	Commercial and pleasure vessels—other than Maritime Commission		\$343,177
Military		52,168	Number of vessels reported	55,548	333,628
Ship building—nonpropelled vessels	956	25,549	Number of vessels not reported		9,549
Ship repairing		544,768	Army, Navy, or Coast Guard vessels		48,452
Maritime Commission vessels		147,927	Number of vessels reported	2,945	41,329
Number of vessels reported	5,519	141,739	Number of vessels not reported		7,123
Number of vessels not reported		6,188	Ship repairing, not reported by type		5,212
			Ship building and ship repairing, not reported separately		2,016

PRODUCT	1947		1939	
	Total shipments and interplant transfers		Total production for sale and interplant transfer	
	Quantity ² (number of units)	Value f.o.b. plant ³	Quantity ² (number of units)	Value of work done during year ³
Boat building		\$65,279		n.a.
Motorboats, inboard (excluding sailboats with auxiliary power and lifeboats)	15,465	45,173	3,247	\$3,599
Less than 16 ft. in length	4,247	1,111		
16 ft. or over and less than 26 ft. in length	7,654	15,675	n.a.	n.a.
26 ft. or over and less than 40 ft. in length	2,941	17,023		
40 ft. or over and not more than 65 ft. in length	623	11,364		
Sailboats (65 ft. in length and less)	2,524	3,802	2,403	1,049
Sailboats with permanently installed auxiliary power	201	2,023		
Sailboats without permanently installed auxiliary power:			n.a.	n.a.
Less than 16 ft. in length	1,174	480		
16 ft. or over and not more than 65 ft. in length	1,149	1,299		
Canoes, including square stern canoes	7,885	1,025	4,105	237
Rowboats including those intended for rowing or outboard motor use	66,149	8,958	22,226	1,420
Less than 16 ft. in length	62,742	8,412	22,226	1,420
16 ft. and over in length	3,407	546		
Dinghies, dories, and similar small craft	5,349	599		
Lifeboats, scows, barges, and lighters, 65 ft. in length or less		4,808		n.a.
Boats, not specified by type		914		
Boat repairing		34,378		
Repair work done on Army, Navy, or Coast Guard boats		3,175		(⁴)
Repair work done on all boats other than Army, Navy, or Coast Guard boats		31,203		
Boat building and repairing, not reported separately		9,380		

PRODUCT	1947			1939	
	Total shipments and interplant transfers			Total production for sale and interplant transfer	
	Quantity (number of units)	Weight ² (short tons)	Value f.o.b. plant ⁴	Quantity (number of units)	Value f.o.b. plant
Locomotives and parts ⁵			\$395,924		\$56,377
Locomotives, new:					
Railroad road service type (including combination line and switching type):					
Steam, except turbine	433	61,174	51,443	91	13,259
Straight-electric	26	3,990	4,597	21	4,859
Diesel-electric ⁶	1,061	133,540	171,153	(⁷)	21,841
Switching type:					
Steam	56	2,512	1,720		
Diesel-electric:				(⁷)	(⁷)
Under 1,000 horsepower	243	20,045	15,029		
1,000 horsepower and over	414	45,396	41,290		
Industrial and mining type:					
Diesel-electric and Diesel-mechanical	580	10,431	6,764	75	1,750
Electric (storage battery, trolley, and third rail)	732	7,270	8,387	289	1,508
Steam and gasoline-mechanical	64	493	360	86	1,450
Locomotives, rebuilt	42	2,051	1,508	n.a.	n.a.
Parts for locomotives, including tenders for sale separately ⁸			93,673		13,710
Passenger train cars ¹²			77,779		18,912
Passenger train cars, new:					
Coach	411	25,640	35,553		
Coach combination	62	3,896	6,042		
Club, lounge, parlor, observation, sleeping, and combination ¹	124	7,982	13,787		
Dining and dining combination	79	5,122	8,614	283	18,912
Baggage, express, and nonpassenger combination	222	10,859	9,281		
Postal, postal nonpassenger combination, express refrigeration, and milk	159	6,659	3,939		
Passenger train cars, rebuilt	120	4,255	563	n.a.	n.a.

See footnotes at end of table.

CENSUS OF MANUFACTURES: 1947

TABLE 6-A.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939—Continued

PRODUCT	1947			1939	
	Total shipments and interplant transfers			Total production for sale and interplant transfer	
	Quantity (number of units)	Weight ³ (short tons)	Value f.o.b. plant ⁴	Quantity (number of units)	Value f.o.b. plant
Freight train cars and industrial rail cars ¹²			\$392, 695		¹³ \$68, 272
Freight train cars, new:					
Box	51, 203	1, 020, 178	198, 194	12, 123	33, 490
Hopper (coal, coke, cement, etc.)	18, 766	427, 739	60, 008	7, 564	¹⁴ 17, 412
Gondola	9, 631	141, 210	25, 353	3, 525	8, 792
Refrigerator	6, 015	164, 707	40, 230	(¹⁴)	(¹⁴)
Flat	1, 074	26, 953	3, 940	846	1, 850
Caboose	162	3, 382	1, 064	130	445
Other cars, including tank, dump, and ballast cars	6, 901	206, 623	38, 207	¹⁴ 1, 092	¹⁴ 6, 283
Freight train cars, rebuilt	4, 199	101, 978	9, 059	n.a.	n.a.
Industrial rail cars (not suitable for use on common carriers)	3, 962	12, 995	3, 730	n.a.	n.a.
Self-propelled cars, street, rapid-transit, and interurban			34, 495		
Trackless trolley cars	1, 163	11, 184	17, 824	143	1, 065
Street railway cars, subway cars, and self-propelled cars, including maintenance-of-way self-propelled cars		n.a.	16, 671		n.a.
Parts for passenger cars and freight cars, self-propelled cars and street, rapid-transit, and interurban cars ¹⁵			¹⁶ 208, 300		¹⁷ 53, 035

PRODUCT	Unit of measure	1947		1939	
		Total shipments and interplant transfers		Total production for sale and interplant transfer	
		Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Bicycles and parts			117, 349		
Bicycles, complete	M.	2, 875	82, 947	1, 253	22, 467
Parts for bicycles, including frame sets, and motorbike parts which are interchangeable with bicycle parts			34, 402		
Motorcycles, motorbikes, motor scooters, and parts			41, 303		¹⁸ 16, 451
Motor scooters	M.	87	12, 475		
Motorcycles, motorbikes, and parts for motorcycles			27, 203		
Parts for motorbikes and motor scooters			1, 625		
Transportation equipment, not elsewhere classified			52, 040		5, 376
Horse-drawn farm wagons, trucks, and other farm transportation equipment:					
Farm wagons, complete with boxes	Units	25, 650	3, 909		
Farm wagon gears, without boxes	do	123, 325	12, 606		
Farm wagon truck gears, without boxes:					
Steel tires	do	5, 839	320		
Rubber tires	do	62, 822	6, 401		
Farm truck and wagon boxes and racks	do	49, 037	3, 729		3, 248
Farm sleighs and bobsleds	do	1, 837	103		
Farm trailers	do	24, 125	2, 615		
Cane wagons and carts	do	2, 209	579		
Other farm transportation equipment			812		
Attachments			1, 349		
Parts			3, 492		
Other horse-drawn vehicles, such as buggies, sulkies, sleighs, etc., including parts and attachments			780		154
Hand carts and push carts, including attachments			1, 770		
Wheelbarrows:					
Wood body and frame	Units	34, 389	253	454, 594	1, 974
All metal	do	259, 119	2, 733		
Wood and metal	do	357, 771	3, 773		
Other transportation equipment, not specified by type			6, 717		

n.a.—Not available.

¹ In 1939 ships were defined as vessels 5 gross tons and over. In 1947 ships were defined as vessels over 65 feet in length. Since the classifications shown in 1939 are not generally comparable to those published for 1947, no 1939 data are published by type of vessel. By the 1939 definition, the total value of work done in ship building and ship repairing amounted to \$317.5 million, of which \$85.4 million represented value of repair work done. The number of vessels reported under ship repairing represents the number of vessels upon which completion of repair jobs occurred during the year. Each visit made by a vessel to a repair yard was considered as a separate vessel.

² In 1939, boats were defined as vessels of less than 5 gross tons. In 1947, they were defined as vessels 65 feet or less in length. The data for these years are therefore not strictly comparable. However, the degree of noncomparability is believed to be relatively minor for the products where 1939 data are shown. The value data are not entirely comparable in that value of shipments was collected in 1947 and value of work done was collected in 1939. By the 1939 definition, the total value of work done in boat building and boat repairing amounted to \$9.5 million, of which \$1.8 million represented value of repair work done.

³ Weight of locomotives or railroad cars is the empty light weight or "tare" weight.

⁴ Values of new locomotives or cars built by railroads for own use represented amounts at which they were written into property accounts. The values reported for rebuilt locomotives or cars by railroad companies represented the additional values written into the property accounts. In 1947, 7,595 new railroad cars, valued at \$37.9 million were shipped by railroad repair shops. In 1939, 4,436 new cars valued at \$12.3 million were produced in railroad repair shops. Similar data for locomotives are not shown to avoid disclosing figures for individual companies.

⁵ Includes new and rebuilt locomotives produced in railroad repair shops. However, locomotive parts produced in railroad repair shops are not included.

⁶ For 1947 the quantity of Diesel-electric railroad road service locomotives represents a total of the number of A units and B units reported. These were reported by type of unit and by horsepower but separate figures are not shown to avoid disclosing figures for individual companies. In 1939, 261 Diesel-electric railroad locomotives were reported, some of which may have been switching types. See footnote 7.

⁷ Switching type locomotives were not reported separately in 1939. If they met Interstate Commerce Commission requirements for locomotives operating on railroads or railway track subject to I.C.C. regulation, or if for export they included the usual devices associated with railroad equipment, they were classified as railroad locomotives. Otherwise they were classified as industrial or mining locomotives. In 1947 switching locomotives include those which have been shipped to railroad users. Locomotives for switching use for industrial users have been generally reported under industrial and mining locomotives in 1947.

⁸ The classification of 22 locomotives, valued at \$1.1 million shown in 1939 as "Other railroad locomotives" has been revised. These included 3 railroad road service locomotives, the value of which has been included in "Parts for locomotives" and 19 industrial and mining locomotives, which have been retabulated into their proper classifications.

⁹ Tenders for sale separately were combined with "parts" to avoid disclosing figures for individual companies both in 1939 and in 1947.

¹⁰ Includes \$6.3 million adjustment for increase in work in process.

¹¹ Includes locomotive parts valued at \$2.8 million obtained from retabulated data for 5 establishments misclassified in 1939.

¹² The 1947 total for this class of product includes rebuilt cars as shown in the commodity detail. The comparable 1939 total for the class of product does not include rebuilt cars, separate data for which were not received from car builders in 1939. In interpreting the census data on new passenger cars and new freight cars, it should be understood that the census data include "express refrigeration and milk cars and express baggage cars" under the heading of passenger train cars.

¹³ Does not include 1939 commodity data for industrial rail cars, separate data for which are not available.

¹⁴ Data for 1939 revised. Refrigerator cars included in "Other cars."

¹⁵ Although new and rebuilt cars produced in railroad repair shops are included in this table, data on car parts produced in these shops are excluded.

¹⁶ Includes \$27.5 million adjustment for increase in work in process.

¹⁷ Includes railroad car parts, valued at \$20.1 million, obtained from retabulated data for 11 establishments misclassified in 1939. Also includes \$12.9 million adjustment for increase in work in process.

¹⁸ Combined to avoid disclosing figures for individual companies.

SHIP AND BOAT BUILDING; RAILROAD AND MISC. TRANSPORTATION EQUIP. 773

TABLE 6-B.—SELF-PROPELLED VESSELS OVER 65 FEET IN LENGTH, BY TYPE OF VESSEL, BY TYPE OF PROPULSION, AND BY GROSS TONNAGE CLASSES: 1947

[Money figures in thousands of dollars]

PRODUCT	Vessels worked on during 1947					Vessels delivered during 1947					
	Number of vessels	Value of work done	Gross tonnage	Dead-weight tonnage (long tons)	Horse-power	Number of vessels	Contract value of vessels delivered	Value of work done	Gross tonnage	Dead-weight tonnage (long tons)	Horse-power
Total		\$184,177									
Military.....		52,168									
Nonmilitary.....	318	132,009	533,263	708,871	692,626	223	\$182,725	\$83,865	300,989	367,912	418,319
NONMILITARY VESSELS											
By type of vessel:											
Passenger cargo combination—over 2,000 gross tons.....	8	20,435	81,587	89,208	81,200	7	40,758	13,743	66,227	76,130	63,200
Cargo, bulk and refrigerated—over 2,000 gross tons.....	42	62,952	237,817	354,810	315,800	27	86,588	38,081	151,295	209,290	198,600
Cargo bulk—up to and including 2,000 gross tons.....	35	4,019	17,004	23,106	20,932	30	5,641	3,074	12,215	18,181	17,620
Tankers.....	10	4,552	102,656	178,036	87,425	4	3,897	2,202	17,382	35,236	16,325
Fishing vessels, including trawlers—steel.....	99	13,000	31,942	28,956	46,370	66	11,488	6,811	12,786	10,694	20,470
Fishing vessels, including trawlers—wood.....	28	2,242	3,720	3,280	8,726	24	2,402	1,936	3,180	2,680	7,351
Tow boats.....	31	8,808	11,306		51,225	17	5,493	4,916	5,996		27,175
Tug boats.....	16	2,208	2,703		18,260	10	1,543	1,176	1,786		12,160
Ferry boats, passengers—auto.....	6	1,966	7,814	3,598	10,828	4	2,378	1,475	6,035	2,248	9,428
Yachts, steel.....	14	2,182	2,615	1,586	10,790	12	2,671	2,075	2,288	1,380	9,390
Yachts, wood.....	7	624	609	511	2,940	7	1,063	624	609	511	2,940
Other vessels, including self-propelled dredges.....	22	9,021	33,490	27,862	38,130	15	18,783	7,752	21,190	11,262	27,660
By type of propulsion:											
Turbine and turbine-electric ¹	59	82,616	433,713	614,032	473,525	36	137,407	51,492	241,347	307,536	272,025
Diesel.....	251	47,009	93,361	93,211	204,133	181	42,584	30,114	53,790	58,848	132,926
Diesel-electric.....	8	2,384	6,189	1,628	14,968	6	2,734	2,259	5,852	1,528	13,368
By gross tonnage classes:											
Over 2,000 gross tons.....	63	96,686	452,102	638,560	518,300	40	149,210	61,748	254,946	324,164	304,000
100 to 2,000 gross tons.....	221	32,483	78,659	68,597	160,888	156	30,926	19,950	43,677	42,259	104,673
Under 100 gross tons.....	34	2,840	2,502	1,714	13,438	27	2,589	2,167	2,366	1,489	9,746

¹ Includes a very small number of vessels with reciprocating engines which are not shown separately to avoid disclosing figures for individual companies.

TABLE 6-C.—NONPROPELLED VESSELS OVER 65 FEET IN LENGTH, BY TYPE OF VESSEL: 1947

[Money figures in thousands of dollars]

TYPE OF SHIP	Vessels upon which work was done during 1947		Vessels delivered during 1947			
	Number of vessels	Value of work done during 1947	Number of vessels	Gross tonnage	Deadweight tonnage (long tons)	Contract value of vessels delivered
Total	956	\$25,549	618	365,007	404,937	\$23,167
Hopper barges.....	392	8,289	256	139,264	193,792	7,338
Tank barges.....	157	6,991	101	128,573	97,667	5,796
Deck and covered cargo barges.....	278	5,151	211	49,895	77,411	5,175
Dredges.....	10	1,779	7	11,025	7,917	2,672
Car floats.....	25	786				
Other nonpropelled vessels such as cargo lighters, floating drydocks, drill barges, pump barges, etc.....	94	2,553	143	36,250	28,160	2,186

¹ Combined to avoid disclosing figures for individual companies.

CENSUS OF MANUFACTURES: 1947

TABLE 7.—SELECTED MATERIALS CONSUMED, BY KIND: 1947

[The table below summarizes the consumption of selected metal shapes by manufacturers during 1947. For each shape, manufacturing establishments were required to report consumption, in quantity and cost, provided that such usage during 1947 exceeded the following amounts: for iron castings, steel castings, each of six carbon steel shapes—50 short tons; for alloy steel bars and all other alloy steel—25 short tons; for stainless steel, brass and copper wire mill shapes, copper and brass castings, aluminum mill shapes and aluminum castings—10 short tons]

[Money figures in thousands of dollars]

METAL SHAPE	SHIP BUILDING AND REPAIRING INDUSTRY			BOAT BUILDING AND REPAIRING INDUSTRY			LOCOMOTIVES AND PARTS INDUSTRY		
	Establishments consuming more than specified quantities								
	Number	Short tons	Cost	Number	Short tons	Cost	Number	Short tons	Cost
Iron castings, rough and semifinished	21	2,564	\$648	(1)	(d)	(d)	13	11,068	\$3,408
Steel castings, rough and semifinished	23	4,393	1,487	(1)	(d)	(d)	14	49,843	20,185
Steel mill shapes and forms	n.a.	646,106	47,008	n.a.	18,495	\$2,100	n.a.	102,053	21,189
Carbon steel:									
Bars and bar shapes	65	34,532	3,019	5	1,861	201	13	23,659	1,963
Sheet and strip	52	68,056	4,991	9	3,571	376	14	22,417	1,886
Structural shapes	32	100,169	6,884	11	2,422	206	9	15,140	1,210
Plates	116	436,612	30,799	13	8,559	765	12	63,003	4,922
Wire	(1)	425	69						
All other mill shapes and forms	17	5,142	591	(1)	1,844	295	6	42,103	6,974
Alloy steel, except stainless:									
Bars and bar shapes	10	458	70				7	2,399	273
All other mill shapes and forms	(1)	133	24				(1)	23,681	3,759
Stainless steel	14	579	561	(1)	238	263	(1)	262	202
Copper and copper-base alloy:									
Brass and wire mill shapes and forms	16	752	588	10	702	615	(1)	6,324	4,299
Castings, rough and semifinished	16	789	599	9	621	588	9	1,529	1,393
Aluminum:									
Aluminum mill shapes	9	512	349	7	409	261			
Castings, rough and semifinished							(1)	2,145	3,032

METAL SHAPE	RAILROAD AND STREET CARS INDUSTRY			MOTORCYCLES AND BICYCLES INDUSTRY		
	Establishments consuming more than specified quantities.					
	Number	Short tons	Cost	Number	Short tons	Cost
Iron castings, rough and semifinished	39	120,017	\$13,848			
Steel castings, rough and semifinished	37	124,576	32,952	(1)	5	4,159
Steel mill shapes and forms	n.a.	1,592,878	126,352	n.a.	114,206	12,525
Carbon steel:						
Bars and bar shapes	50	181,756	14,709	17	22,347	2,069
Sheet and strip	49	280,988	20,274	24	77,088	7,470
Structural shapes	42	303,335	23,682			
Plates	43	511,852	34,086	(1)	1,219	89
Wire	(1)	1,161	125	5	1,111	105
All other mill shapes and forms	20	156,680	21,220	9	7,907	2,090
Alloy steel, except stainless:						
Bars and bar shapes	11	22,767	2,160	(1)	1,303	170
All other mill shapes and forms	13	36,002	3,587	(1)	3,231	532
Stainless steel	12	8,337	6,509	(1)	(d)	(d)
Copper and copper-base alloy:						
Brass and wire mill shapes and forms	10	1,529	911	5	682	611
Castings, rough and semifinished	12	2,085	1,409	(1)	63	50
Aluminum:						
Aluminum mill shapes	15	3,623	2,426	(1)	38	20
Castings, rough and semifinished	(1)	59	93	(1)	862	1,021

^d Withheld to avoid disclosing figures for individual companies.

¹ Less than 5 establishments.

SHIP AND BOAT BUILDING; RAILROAD AND MISC. TRANSPORTATION EQUIP. 775

TABLE 8.—NUMBER OF ESTABLISHMENTS PERFORMING SELECTED METALWORKING OPERATIONS: 1947

(The figures in the table represent the number of establishments maintaining the metalworking operation specified, according to the usual number of production workers employed in the operation during 1947)

METALWORKING OPERATION	SHIP BUILDING AND REPAIRING INDUSTRY						LOCOMOTIVES AND PARTS INDUSTRY					
	Number of establishments performing selected metalworking operations											
	Total	Distribution by number of production workers in the operation					Total	Distribution by number of production workers in the operation				
		1-4	5-19	20-49	50-99	100 and over		1-4	5-19	20-49	50-99	100 and over
Foundry.....	14	4	4	1	4	1	8		1	2	1	4
Die casting.....	1	1										
Forging—presses, hammers, or upsetters.....	49	23	21	4	1		10	2	3	2		3
Electroplating.....	2		2				1	1				
Galvanizing and other hot dip coating.....	8	5	3									
Heat treating or annealing of metals.....	25	21	3	1			10	5	3	1	1	
Automatic screw-machine department.....	3	1	2				6	1	4			1
Machine shop.....	196	41	69	40	25	21	28	3	6	4	6	9
Tool and die room.....	29	15	9	4	1		12	2	5	1	1	3
Pattern shop.....	13	7	3	3			9	3	4		1	1
Plate or structural fabrication.....	148	21	38	38	18	33	17	2	4	3	1	7
Stamping, blanking, forming, or drawing.....	18	6	4	4	1	3	14	2	6	2	1	3

METALWORKING OPERATION	RAILROAD AND STREET CARS INDUSTRY					MOTORCYCLES AND BICYCLES INDUSTRY						
	Number of establishments performing selected metalworking operations											
	Total	Distribution by number of production workers in the operation					Total	Distribution by number of production workers in the operation				
		1-4	5-19	20-49	50-99	100 and over		1-4	5-19	20-49	50-99	100 and over
Foundry.....	12	1		5		6	2	1			1	
Die casting.....	3			1		2	1	1				
Forging—presses, hammers, or upsetters.....	39	5	11	16	3	4	2		2			
Electroplating.....	5	3	2				15	1	6	3	4	1
Galvanizing and other hot dip coating.....	7	4	2		1		2	1		1		
Heat treating or annealing of metals.....	21	16	3	2			17	9	6	2		
Automatic screw-machine department.....	8	4		3	1		13	3	5	2	2	1
Machine shop.....	57	7	14	15	12	9	40	14	11	7	3	5
Tool and die room.....	22	4	8	4	3	3	19	6	7	3	3	
Pattern shop.....	21	10	8	1	2		4	3	1			
Plate or structural fabrication.....	40	2	2	11	6	19	7	3	1	2		1
Stamping, blanking, forming, or drawing.....	39	8	5	10	7	9	35	8	10	8	5	4

NOTE: In each of the above industries, a number of establishments, principally ones with a small number of employees, did not answer this inquiry on metalworking operations.

Major Group 38.—INSTRUMENTS AND RELATED PRODUCTS

This major group includes establishments engaged in manufacturing mechanical measuring, laboratory, and scientific instruments; optical instruments and lenses; surgical, medical, and dental instruments, equipment and supplies; ophthalmic goods; photographic equipment and supplies; watches and clocks. Establishments primarily engaged in manufacturing

instruments for indicating, measuring, and recording electrical quantities and characteristics are classified in Industry 3613. Dental laboratories making dentures and artificial teeth to order for the dental profession, and establishments grinding ophthalmic lenses on an individual prescription basis are classified in non-manufacturing industries.

GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

CENSUS YEAR	Number of establishments	All employees ¹		Production workers		Value added by manufacture ¹
		Number (average for the year)	Wages and salaries, total	Number (average for the year)	Wages, total	
1947.....	2,599	231,997	\$665,347	181,939	\$467,785	\$1,080,386
1939 ²	1,292	n.a.	n.a.	84,867	107,704	333,409
1937 ³	1,026	n.a.	n.a.	83,814	112,732	298,304
1935 ⁴	1,000	83,744	108,306	67,530	74,242	200,113
1933.....	830	n.a.	n.a.	49,564	46,219	142,484
1931.....	1,029	n.a.	n.a.	59,892	66,423	200,739
1929 ⁵	1,109	98,061	148,996	81,905	107,890	300,806
1927 ⁶	1,108	n.a.	n.a.	78,946	102,876	273,696
1925 ⁷	1,286	88,011	124,355	73,033	91,040	263,078
1923 ⁸	1,593	93,189	127,340	76,639	91,764	244,873
1921.....	1,592	82,931	108,794	67,218	77,786	188,781
1919.....	2,037	108,711	124,837	90,616	93,001	235,639
1914.....	1,572	70,958	50,017	59,850	36,848	97,644
1909 ⁹	1,239	n.a.	n.a.	50,848	28,071	73,127
1904.....	1,027	46,377	26,297	41,907	21,292	46,326
1899.....	1,101	34,847	18,196	32,000	15,247	31,637

n.a.—Not available.

¹ The figures for 1947 and 1939 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known. See GENERAL EXPLANATIONS—Manufacturing employees—Classifications used.

² Value of products less cost of materials, supplies, fuel, electricity, and contract work. For 1899-1933, cost of contract work was not subtracted from value of products in calculating value added by manufacture. See GENERAL EXPLANATIONS—Value added by manufacture.

³ The figures for 1947 and 1939 are not entirely comparable with those for earlier years because the 1947 and 1939 figures (a) include data for establishments primarily engaged in manufacture of thermostats and gauges, and (b) exclude data for establishments primarily engaged in the manufacture of time-recording stamps and machines. Value added by manufacture for 1939 on a basis strictly comparable with 1937 was \$314.1 million.

⁴ The figures for 1937-47 include, whereas those for earlier years exclude, data for establishments primarily engaged in the manufacture of certain mechanical measuring instruments. Value added by manufacture for 1937, excluding data for these establishments and on a basis comparable with 1935, was \$294.5 million.

⁵ The figures for 1935-47 include, whereas those for 1933 and earlier years exclude, data for establishments primarily engaged in manufacture of certain dental equipment and supplies (chairs, cabinets, and electrical devices).

⁶ The figures for 1929-47 exclude, whereas those for earlier years include, data for establishments primarily engaged in manufacture of gas machines. Value added by manufacture for 1929, including data for these establishments and on a basis comparable with 1927, was \$396.3 million.

⁷ The figures for 1927-47 exclude, whereas those for earlier years include, data for dental laboratories operating on a custom basis. Value added by manufacture for 1927 including data for these laboratories and on a basis comparable with 1925, was \$280.3 million.

⁸ The figures for 1899-1923 include, whereas those for later years exclude, data for establishments primarily engaged in grinding lenses for spectacles and eyeglasses to individual prescription.

⁹ The figures for 1899-1909 exclude, whereas those for 1914 and later years include, data for establishments primarily engaged in manufacture of motion-picture machines. Value added by manufacture for 1914, excluding data for such establishments, was \$96.4 million.

INSTRUMENTS; SURGICAL, DENTAL, AND OPHTHALMIC GOODS

This report shows the 1947 Census of Manufactures statistics for establishments primarily engaged in the production of laboratory, scientific, and engineering instruments, mechanical measuring and controlling instruments, optical instruments and lenses, surgical and medical instruments, surgical and orthopedic appliances and supplies, dental equipment and supplies, and ophthalmic goods. These establishments have been classified in seven industries described separately below.

Two of these industries are shown as separate industries for the first time in the 1947 Census of Manufactures. These are "Scientific instruments" and "Mechanical measuring and controlling instruments." The Scientific Instruments Industry was previously included in "Professional and scientific instruments, except surgical and dental." Mechanical measuring and controlling instruments includes the previous industry "Mechanical measuring instruments," a portion of the Professional and Scientific Instruments Industry, and thermostats, gauges, and similar items from the "Steam fittings" industry.

Scientific Instruments (*Full Standard Industrial Classification title and number: Laboratory, Scientific, and Engineering Instruments (Except Surgical, Medical, and Dental), 3811.*)—This industry comprises establishments primarily engaged in manufacturing laboratory, scientific, and engineering instruments such as nautical, navigational, aeronautical, surveying, drafting, mathematical instruments, and instruments for laboratory work and scientific research (except microscopes and telescopes—Industry 3831). Establishments primarily engaged in manufacturing surgical and medical instruments are classified in Industry 3841, dental instruments and equipment in Industry 3843, mechanical measuring and controlling instruments in Industry 3821, machinists' precision measuring tools in Industry 3543, and instruments for indicating, measuring, and recording electrical quantities and characteristics in Industry 3613.

Of the total value of \$116 million of laboratory, scientific, and engineering instruments, 16 percent was shipped by establishments classified in other industries. Establishments classified in the Scientific Instruments Industry shipped \$98 million of laboratory, scientific, and engineering instruments and \$21 million of other products such as aircraft and nautical instruments, except flight instruments, industrial process instruments, etc.

Mechanical Measuring Instruments (*Full Standard Industrial Classification title and number: Mechanical Measuring and Controlling Instruments, 3821.*)—This industry comprises establishments primarily engaged in manufacturing mechanical instruments for indicating, recording, measuring, and controlling temperature, pressure, mechanical motion, rotation, flow, liquid level, humidity, density, acidity, alkalinity, and combustion; dial pressure gauges; physical-property testing apparatus such as hardness, tension, compression, torsion, ductility, and elasticity testing apparatus; and instruments for household and office use such as thermometers, barometers, and rain gauges. Establishments primarily engaged in manufacturing instruments for indicating, measuring, and recording electrical quantities and characteristics are classified in

Industry 3613, watches and clocks in Industry 3871, and measuring-and-dispensing pumps in Industry 3586.

Of the total value of \$360 million, 16 percent was shipped by establishments classified in other industries. Establishments classified in the Mechanical Measuring Instruments Industry shipped \$302 million of mechanical measuring instruments and \$60 million of other products such as electrical instruments, scientific and professional instruments, motor vehicle parts, etc.

Optical Instruments and Lenses (*Standard Industrial Classification No. 3831.*)—This industry comprises establishments primarily engaged in grinding optical lenses and prisms, and in manufacturing microscopes, telescopes, field and opera glasses, and related optical instruments such as refractometers, spectrometers, spectroscopes, colorimeters, polariscopes, and optical measuring instruments. Establishments primarily engaged in manufacturing eyeglass lenses, frames, or fittings are classified in Industry 3851.

Of the total value of \$46 million of optical instruments and lenses, 30 percent was shipped by establishments classified in other industries.

Surgical and Medical Instruments (*Standard Industrial Classification No. 3841.*)—This industry comprises establishments primarily engaged in manufacturing surgical, veterinary, orthopedic, and other medical instruments. Establishments primarily engaged in manufacturing surgical and orthopedic appliances are classified in Industry 3842, and electrotherapeutic, electromedical, and X-ray apparatus in Industry 3693.

Surgical Appliances and Supplies (*Full Standard Industrial Classification title and number: Surgical and Orthopedic Appliances and Supplies; and Personal Safety Devices, Not Elsewhere Classified, 3842.*)—This industry comprises establishments primarily engaged in manufacturing surgical and orthopedic appliances and supplies, including surgical gut strings; hospital and surgical sterilizers; artificial limbs; fracture appliances; elastic hosiery, arch supports, and other foot appliances; abdominal supporters, braces, and trusses; sanitary napkins; bandages; surgical gauze and dressings; adhesive tapes and medicated plasters; and personal safety appliances and supplies, not elsewhere classified. Establishments primarily engaged in manufacturing surgical and medical instruments are classified in Industry 3841.

Establishments classified in the Surgical Appliances and Supplies Industry shipped \$207 million of surgical appliances and supplies and \$42 million of other products such as professional furniture, lighting fixtures, paper products, cosmetics, etc.

Dental Equipment and Supplies (*Standard Industrial Classification No. 3843.*)—This industry comprises establishments primarily engaged in manufacturing dental instruments, mechanical devices, and other equipment and supplies for use by dentists. Dental laboratories making dentures and artificial teeth to order for the dental profession are classified in service industries.

Ophthalmic Goods (*Standard Industrial Classification No. 3851.*)—This industry comprises establishments primarily engaged in grinding ophthalmic lenses, and in manufacturing other ophthalmic goods such as eyeglass frames or fittings. Retail establishments fitting eyeglasses to individual order are classified in trade industries. Wholesalers that grind optical lenses to individual order are also excluded from the Census of Manufactures.

CENSUS OF MANUFACTURES: 1947

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Scientific instruments:								
1947	216	20,384	\$61,719	15,023	\$41,831	\$83,010	\$43,693	\$126,703
1939	125	n.a.	n.a.	6,529	10,067	30,627	11,624	42,251
Mechanical measuring instruments:								
1947	463	53,237	155,589	40,937	109,196	245,144	131,329	376,473
1939	227	n.a.	n.a.	15,075	19,954	59,463	29,917	89,380
Optical instruments and lenses:								
1947	114	6,458	18,664	5,228	14,025	26,743	9,338	36,081
1939	31	3,016	4,684	2,209	3,266	7,159	1,531	8,690
Surgical and medical instruments:								
1947	139	6,980	20,297	5,818	15,281	30,214	14,007	45,121
1939	61	n.a.	n.a.	1,911	2,370	7,235	2,820	10,061
1937	39	n.a.	n.a.	1,447	1,863	5,630	2,035	7,565
Surgical appliances and supplies:								
1947	628	22,315	61,915	16,667	38,096	111,526	139,870	251,396
1939	360	13,129	17,943	8,468	8,548	39,102	40,296	79,398
1937	323	10,318	12,200	8,423	8,546	32,037	45,031	77,068
1935	307	9,346	10,758	7,089	6,288	25,620	36,144	61,764
1933	250	9,074	9,392	6,958	6,119	22,596	28,846	51,442
1931	325	n.a.	n.a.	6,740	7,271	28,058	22,954	51,012
1929	363	10,158	14,644	7,910	8,922	35,602	36,005	71,607
1927	335	9,327	12,912	7,310	8,371	29,859	30,764	60,523
1925	303	8,416	11,343	6,450	6,837	31,472	26,814	58,286
1923	286	7,902	10,993	5,868	6,309	23,327	24,276	47,603
1921	295	6,541	8,623	4,810	5,280	19,870	15,077	34,947
1919	445	9,700	11,517	7,061	6,879	23,817	22,988	46,805
1914	391	6,225	4,392	4,770	2,581	9,005	7,413	16,418
1909	324	5,489	3,616	4,243	2,129	7,027	5,372	12,399
1904	284	3,760	1,970	3,153	1,370	4,403	2,800	7,269
1899	306	2,228	1,181	1,788	767	3,264	1,418	4,682
Dental equipment and supplies:								
1947	213	9,074	25,625	7,132	17,304	42,925	28,177	71,102
1939	131	5,708	8,499	4,245	4,825	18,289	13,268	31,547
1937	101	5,626	7,952	4,574	5,347	18,162	12,717	30,879
1935	87	4,486	5,872	3,516	3,631	13,823	9,145	22,968
1933	79	3,687	3,400	3,120	2,452	9,492	6,945	16,437
1931	84	n.a.	n.a.	3,874	3,949	14,643	9,362	24,005
1929	87	5,517	8,076	4,559	5,359	17,853	17,327	35,180
1927	97	4,473	5,599	3,759	3,941	14,160	18,189	32,349
Ophthalmic goods:								
1947	184	22,457	56,811	19,744	46,224	81,530	38,784	120,314
1939	91	13,497	19,271	10,252	12,246	30,745	14,210	44,955
1937	79	n.a.	n.a.	10,906	12,968	30,058	13,462	43,520

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.² Figures for years prior to 1935 do not include cost of contract work.³ For 1947 and 1929, value of products shipped; for all other years, value of products made. See GENERAL EXPLANATIONS—Value of products shipped.⁴ The returns for 1939 have been retabulated to provide figures comparable with those for 1947. No comparable figures are available for prior years.⁵ Revised.⁶ "Surgical and medical instruments" was formerly a part of the discontinued industry "Instruments and apparatus, professional, scientific, commercial, and industrial."

Separate figures are, therefore, not available prior to 1937.

⁷ For "Dental equipment and supplies," the figures do not include data for dental instruments for the period 1927-35 and certain chairs, cabinets, and electrical supplies for the period 1927-35.⁸ The figures for "Dental equipment and supplies" prior to 1927 are not sufficiently comparable with those for later years to be shown in this table because they include data for dental laboratories operating on a custom basis.⁹ "Ophthalmic goods" was formerly included in the discontinued industry "Optical goods." Separate figures for earlier years are, therefore, not available.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947

[Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Scientific instruments, total¹	216	20,384	\$61,719	15,023	30,099	\$41,831	\$83,010	\$43,693	\$126,703	\$4,489
New England	17	489	1,408	380	835	1,028	2,357	879	3,236	282
Massachusetts	13	453	1,338	348	761	965	2,243	812	3,055	282
Middle Atlantic	69	13,782	42,430	10,076	20,121	28,693	55,097	29,477	84,574	2,686
New York	38	7,020	21,390	5,205	10,366	18,120	28,632	15,649	44,281	1,339
New Jersey	17	5,959	18,963	4,308	8,681	12,283	24,035	12,570	36,605	(d)
Pennsylvania	14	803	2,077	663	1,134	1,290	2,430	1,268	3,688	(d)
East North Central	51	2,865	8,102	2,168	4,269	5,420	12,157	6,168	18,325	605
Ohio	10	219	613	158	324	365	997	478	1,475	24
Illinois	26	2,586	6,401	1,698	3,338	4,324	9,483	4,800	14,202	500
West North Central	7	167	407	144	307	317	734	228	962	17
South Atlantic	13	894	2,677	596	1,192	1,613	3,391	2,127	5,518	76
Maryland	7	846	2,550	552	1,103	1,518	3,138	2,025	5,163	70
West South Central	19	433	1,364	286	606	827	1,833	1,266	3,099	344
Pacific	40	1,754	5,331	1,373	2,769	3,924	7,441	3,548	10,989	479

See footnotes at end of table.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947—Continued

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Mechanical measuring instruments, total¹	463	53,237	\$155,589	40,937	81,757	\$109,196	\$245,144	\$131,329	\$376,473	\$8,846
New England	54	8,542	24,495	6,375	12,838	17,087	41,228	23,848	65,076	1,181
Connecticut	20	4,804	14,107	3,585	6,967	10,093	24,157	10,433	34,590	821
Middle Atlantic	205	22,619	68,269	17,188	33,875	46,819	107,742	55,132	162,874	3,701
New York	131	11,507	35,495	8,957	17,694	24,658	54,971	25,499	80,470	2,082
New Jersey	34	1,596	4,180	1,369	2,727	3,226	6,412	5,349	11,761	265
Pennsylvania	40	9,466	28,594	6,862	13,454	18,935	46,359	24,284	70,643	1,374
North Central	125	16,933	48,653	13,274	27,096	35,170	73,429	40,967	114,396	2,781
Ohio	29	2,911	9,007	2,064	4,339	5,950	13,361	5,209	18,570	868
Illinois	42	6,694	19,739	5,134	10,630	13,847	30,529	17,245	47,774	942
Michigan	23	2,132	5,898	1,685	3,085	4,253	7,786	6,073	13,859	165
South	33	2,198	5,503	1,772	3,459	3,978	10,638	4,352	14,988	422
Texas	10	159	392	117	227	246	510	398	908	(d)
West	46	2,945	8,669	2,328	4,489	6,142	12,109	7,030	19,139	761
California	42	2,926	8,623	2,313	4,454	6,109	12,031	6,982	19,013	760
Optical instruments and lenses, total¹	114	6,458	18,664	5,228	10,820	14,025	26,743	9,338	36,081	1,520
New England	14	609	1,868	475	1,012	1,210	2,676	1,782	4,458	89
Middle Atlantic	52	4,572	13,503	3,688	7,633	10,348	18,782	4,421	23,203	1,191
New York	34	4,309	12,906	3,479	7,196	9,923	17,782	4,115	21,897	1,186
Pennsylvania	10	232	525	182	384	366	866	237	1,103	32
Other Divisions	48	1,277	3,293	1,065	2,175	2,467	5,285	3,135	8,420	240
Illinois	16	782	2,077	680	1,332	1,590	3,057	1,971	5,028	197
Surgical and medical instruments, total¹	139	6,980	20,297	5,818	11,702	15,281	30,214	14,907	45,121	898
Northeast	97	5,849	17,405	4,901	9,787	13,221	25,034	12,009	37,043	782
New York	50	1,914	5,738	1,553	3,198	4,111	9,098	3,457	12,556	262
East North Central	25	724	2,029	558	1,210	1,424	3,391	2,032	5,423	39
West North Central	5	56	144	38	80	88	227	60	287	4
South and West	12	351	719	321	625	548	1,562	806	2,368	53
Surgical appliances and supplies, total¹	628	22,315	61,915	15,667	33,412	38,696	111,526	139,870	251,396	5,730
New England	57	1,760	3,846	1,579	3,118	3,004	9,098	9,551	18,649	359
Massachusetts	35	974	2,055	874	1,692	1,627	5,025	2,777	7,802	174
Connecticut	9	540	1,334	471	947	974	2,725	5,618	8,243	149
Middle Atlantic	197	9,820	30,178	6,920	13,746	17,026	50,038	60,817	110,855	3,336
New York	124	3,587	9,629	2,885	5,819	6,648	16,896	25,335	42,231	1,027
East North Central	161	8,737	23,262	6,635	13,440	15,444	44,857	63,109	107,966	1,819
Ohio	46	1,549	3,459	1,261	2,496	2,310	6,981	5,763	12,744	357
Illinois	65	4,553	13,226	3,135	6,491	7,943	27,386	33,617	61,003	894
West North Central	52	788	1,528	567	1,162	1,038	2,595	2,924	5,519	113
Minnesota	14	157	396	120	254	277	519	224	743	2
Missouri	21	522	940	353	724	619	1,763	2,452	4,215	108
South	79	606	1,366	498	1,039	1,050	2,431	1,843	3,774	34
Mountain	16	59	130	50	98	107	223	133	356	1
Pacific	66	545	1,605	418	809	1,027	2,284	1,993	4,277	68
California	54	468	1,379	352	680	857	1,964	1,867	3,831	68
Dental equipment and supplies, total¹	213	9,074	25,625	7,132	14,247	17,304	42,925	28,177	71,102	2,386
Northeast	105	6,269	17,856	5,066	10,140	12,546	30,625	20,441	51,066	1,835
New York	52	3,168	9,951	2,397	5,015	6,739	15,833	14,374	30,207	1,018
Pennsylvania	33	2,616	6,657	2,288	4,427	5,016	12,361	2,351	14,712	627
East North Central	51	2,149	6,105	1,603	3,180	3,792	9,019	3,952	12,671	361
West North Central	8	84	253	51	107	134	695	2,058	2,753	5
South and West	49	572	1,411	412	820	832	2,586	1,726	4,312	185
Ophthalmic goods, total¹	184	22,457	56,811	19,744	39,441	46,224	81,530	38,784	120,314	3,722
New England	33	6,201	15,622	5,928	12,301	14,145	30,316	11,225	41,541	1,300
Middle Atlantic	99	12,734	32,662	10,785	20,966	25,554	39,893	25,532	63,225	2,084
New York	73	10,584	28,148	8,910	17,319	22,066	31,833	18,172	50,105	1,534
East North Central	26	1,841	5,166	1,479	2,915	3,694	8,838	2,146	9,984	145
Illinois	8	128	284	110	218	218	529	163	692	6
West North Central	10	378	848	327	644	647	1,197	530	1,727	55
Missouri	5	312	723	272	530	532	974	483	1,457	50
South	9	1,284	2,474	1,207	2,583	2,149	3,232	1,305	4,537	132
Pacific	7	19	39	18	32	35	54	46	100	6

^d Withheld to avoid disclosing figures for individual companies.
¹ For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.
Scientific instruments: *New England*, Rhode Island, 2; *Connecticut*, 2; *East North Central*, Indiana, 5; Michigan, 8 (124); Wisconsin, 2; *West North Central*, Minnesota, 1; Missouri, 4; South Dakota, 1; Kansas, 1; *South Atlantic*, District of Columbia, 2; Virginia, 1; West Virginia, 1; Georgia, 1; Florida, 1; *West South Central*, Oklahoma, 11 (257); Texas, 8 (176); *Pacific*, Oregon, 1; California, 39.
Mechanical measuring instruments: *New England*, Maine, 1; Vermont, 1; Massachusetts, 30 (3,539); Rhode Island, 2; *North Central*, Indiana, 8 (1,558); Wisconsin, 12 (2,832); Minnesota, 3 (39); Iowa, 2; Missouri, 4 (522); Nebraska, 1; Kansas, 1; *South*, Delaware, 1; Maryland, 8 (89); District of Columbia, 1; Virginia, 3 (62); Florida, 2; Kentucky, 1; Tennessee, 3 (1,420); Alabama, 1; Oklahoma, 3 (181); *West*, Colorado, 1; Washington, 3.
Optical instruments and lenses: *New England*, Massachusetts, 10 (342); Rhode Island, 2; Connecticut, 2; *Middle Atlantic*, New Jersey, 8 (31); *Other Divisions*, Ohio, 4 (44); Indiana, 2; Michigan, 3 (13); Wisconsin, 1; Minnesota, 3; Missouri, 1; Maryland, 1; West Virginia, 1; Florida, 1; Mississippi, 1; Texas, 2; California, 12 (185).
Surgical and medical instruments: *Northeast*, Maine, 1; New Hampshire, 1; Massachusetts, 13 (896); Connecticut, 10 (426); *West North Central*, Missouri, 4; Kansas, 1; *South and West*, Virginia, 1; North Carolina, 2; Tennessee, 2; *North Central*, Ohio, 3; Indiana, 4 (122); Illinois, 17 (492); Michigan, 1; *West North Central*, Missouri, 4; Kansas, 1; *South and West*, Virginia, 1; North Carolina, 2; Tennessee, 2; Oklahoma, 1; Texas, 1; Colorado, 1; Washington, 3; California, 3 (65).
Surgical appliances and supplies: *New England*, Maine, 1; New Hampshire, 7; Vermont, 1; Rhode Island, 4 (71); *Middle Atlantic*, New Jersey, 25 (3,448); Pennsylvania, 48 (2,785); *East North Central*, Indiana, 9 (262); Michigan, 28 (407); Wisconsin, 13 (1,976); *West North Central*, Iowa, 8 (42); Nebraska, 6 (46); Kansas, 3 (21); *South*, Delaware, 2; Maryland, 8 (30); District of Columbia, 6 (110); Virginia, 2; West Virginia, 4 (22); North Carolina, 6 (35); South Carolina, 2; Georgia, 3 (57); Florida, 5 (22); Kentucky, 6 (23); Tennessee, 3 (17); Alabama, 5 (39); Mississippi, 2; Arkansas, 2; Louisiana, 4 (53); Oklahoma, 2; Texas, 17 (87); *Mountain*, Idaho, 1; Colorado, 8 (26); New Mexico, 1; Arizona, 2; Utah, 4 (27); *Pacific*, Washington, 7 (66); Oregon, 5 (11).
Dental equipment and supplies: *Northeast*, Massachusetts, 12 (235); Connecticut, 1; New Jersey, 7; *East North Central*, Ohio, 11 (1,018); Indiana, 3; Illinois, 31 (701); Michigan, 6 (329); Wisconsin, 1; *West North Central*, Minnesota, 4 (70); Missouri, 3; Nebraska, 1; *South and West*, Delaware, 1; Georgia, 1; Kentucky, 2; Texas, 3 (43); Montana, 1; Colorado, 5 (73); Arizona, 2; Washington, 4 (13); Oregon, 2; California, 28 (135).
Ophthalmic goods: *New England*, Maine, 1; Massachusetts, 15 (5,029); Rhode Island, 15 (954); Connecticut, 2; *Middle Atlantic*, New Jersey, 18 (757); Pennsylvania, 8 (1,393); *East North Central*, Ohio, 11 (1,253); Indiana, 2; Michigan, 3 (15); Wisconsin, 2; *West North Central*, Minnesota, 4; Nebraska, 1; *South*, Virginia, 3 (1,057); West Virginia, 1; South Carolina, 1; Florida, 1; Texas, 3 (138); *Pacific*, Washington, 2; California, 5.

CENSUS OF MANUFACTURES: 1947

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS]

ITEM	Industry						
	Scientific instruments	Mechanical measuring instruments	Optical instruments and lenses	Surgical and medical instruments	Surgical appliances and supplies	Dental equipment and supplies	Ophthalmic goods
ALL ESTABLISHMENTS							
Number of establishments.....	216	463	114	139	628	213	184
All employees:							
Number (average for the year).....	20,384	53,237	6,458	6,080	22,315	9,074	22,457
Salaries and wages, total.....	\$61,719	\$155,589	\$18,604	\$20,297	\$61,915	\$25,025	\$56,811
Production and related workers:							
Number (average for the year).....	15,023	40,937	5,228	5,818	16,667	7,132	19,744
Man-hours, total.....	30,099	81,737	10,820	11,702	33,412	14,247	39,441
Wages, total.....	\$41,831	\$109,196	\$14,025	\$15,281	\$38,606	\$17,304	\$46,224
Value added by manufacture.....	\$83,010	\$245,144	\$26,743	\$30,214	\$111,526	\$42,925	\$81,530
ESTABLISHMENTS REPORTING DETAILED STATISTICS							
Number of establishments.....	216	347	114	139	326	135	126
All employees:							
Number (average for the year).....	20,384	52,701	6,458	6,080	21,038	8,823	22,136
Salaries and wages, total.....	\$61,719	\$164,519	\$18,604	\$20,297	\$59,109	\$25,020	\$56,241
Production and related workers:							
Number (average for the year).....	15,023	40,465	5,228	5,818	15,419	6,888	19,436
Man-hours, total.....	30,099	80,811	10,820	11,702	30,922	13,764	38,829
Wages, total.....	\$41,831	\$108,138	\$14,025	\$15,281	\$30,070	\$10,099	\$45,690
Value added by manufacture.....	\$83,010	\$243,387	\$26,743	\$30,214	\$106,903	\$41,716	\$80,617
Number of employees for pay period ended nearest Oct. 15:							
All employees.....	20,941	51,290	6,531	6,969	20,601	8,176	20,873
Male.....	16,190	36,375	4,438	4,579	11,276	4,022	12,686
Female.....	4,751	14,915	2,093	2,390	9,325	3,254	8,187
Production and related workers.....	15,245	39,020	5,303	5,773	14,939	6,235	18,217
Male.....	12,194	28,585	3,669	3,926	8,125	3,771	11,132
Female.....	3,051	10,435	1,634	1,847	6,814	2,464	7,085
Force-account construction workers.....	25	2		1			
Administrative, supervisory, sales, and all other.....	5,671	12,268	1,228	1,195	5,662	1,941	2,656
Male.....	3,971	7,788	769	652	3,151	1,151	1,564
Female.....	1,700	4,480	459	543	2,511	790	1,102
All employees, number by month:							
January.....	19,697	54,298	6,449	6,972	21,345	10,010	24,277
February.....	19,768	54,761	6,403	7,018	21,763	9,663	24,160
March.....	19,972	54,434	6,469	7,055	21,813	9,249	23,824
April.....	20,194	54,330	6,399	7,084	21,557	9,179	23,300
May.....	20,418	54,238	6,446	6,832	21,372	8,860	22,854
June.....	20,534	53,425	6,430	6,968	21,011	8,703	22,085
July.....	20,551	51,433	6,445	6,930	20,748	8,574	20,941
August.....	20,732	51,655	6,477	6,921	20,605	8,371	20,924
September.....	20,675	51,539	6,441	6,904	20,524	8,161	20,759
October.....	20,941	51,290	6,531	6,969	20,601	8,176	20,873
November.....	20,512	50,550	6,490	6,987	20,520	8,370	20,707
December.....	20,514	51,018	6,456	7,009	20,436	8,470	20,861
Cost of materials, fuel, electricity, and contract work.....	\$43,693	\$130,221	\$9,338	\$14,907	\$130,922	\$26,481	\$38,125
Materials, parts, containers, and supplies.....	41,627	124,125	8,466	13,883	134,714	25,865	36,206
Fuels, total.....	427	1,228	167	182	695	182	712
Bituminous coal.....	119	476	85	10	243	30	81
Anthracite.....	9	54		22	20	2	3
Coke.....		15			6	3	3
Fuel oils.....	230	334	10	44	305	70	251
Gas.....	64	298	65	47	57	67	384
Other fuels.....	5	51	1	4	4	1	10
Purchased electric energy.....	593	1,658	209	198	705	270	596
Contract and commission work.....	1,046	3,210	506	699	748	164	611
Value of inventories:							
Beginning of year, total.....	\$30,732	\$84,132	\$8,308	\$9,026	\$37,249	\$10,134	\$41,789
Finished products.....	5,010	14,261	960	1,948	15,184	4,465	13,704
Materials, supplies, and work in process.....	25,722	69,871	7,348	7,078	22,065	11,669	28,085
End of year, total.....	39,403	95,386	8,860	9,776	41,442	18,142	47,526
Finished products.....	7,445	17,317	1,630	2,583	16,302	5,732	18,957
Materials, supplies, and work in process.....	31,958	78,069	7,230	7,193	25,140	12,410	28,569
Expenditures for plant and equipment:							
New plant and equipment.....	\$4,489	\$8,846	\$1,520	\$808	\$5,730	\$2,386	\$3,722
Construction and major alteration of fixed plants.....	1,645	1,706	255	369	1,573	771	1,081
Buildings.....	1,557	1,514	249	296	1,507	654	961
Other construction.....	88	192	6	73	66	117	120
Machinery and equipment.....	2,844	7,140	1,265	529	4,157	1,615	2,641
Production machinery and equipment.....	2,303	5,999	1,216	432	3,380	1,348	2,325
Other machinery and equipment.....	451	1,141	49	97	777	267	316
Used plant and equipment, and land.....	3,566	1,440	331	388	565	90	678
Number of highway-type motor vehicles owned or leased:							
Trucks.....	111	171	10	30	81	30	50
By manufacturer's rated capacity:							
Under 1 1/2 tons.....	65	77	8	21	37	12	20
1 1/2 tons.....	33	62		4	27	8	18
Over 1 1/2 tons and less than 3 1/2 tons.....	10	21	2	5	15	5	3
3 1/2 tons and less than 5 tons.....	1	5			1		8
5 tons and over.....	2	6			1		1
By body type:							
Van.....	7	16		5	9	2	10
Stake or platform.....	28	61	1	4	18	8	15
Panel or light delivery.....	53	61	8	18	48	9	16
All other trucks.....	23	33	1	3	6	11	9
Truck tractors.....	1				3		
Trailers and semitrailers.....		1			6		

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A ^d appears in the column where the figure has been omitted and the combined figure is printed in italics]

ITEM	Total, all establishments	Establishments with an average of—									
		1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees	500-999 employees	1,000-2,499 employees	2,500 employees and over
Scientific instruments:											
Number of establishments	216	51	34	37	47	18	16	6	3	2	2
Number of employees (average for the year)	20,384	104	224	558	1,580	1,184	2,741	2,274	2,035	(d)	9,684
Value added by manufacture	\$83,010	\$483	\$1,010	\$2,562	\$6,550	\$4,642	\$12,147	\$8,911	\$9,526	(d)	\$37,179
Mechanical measuring instruments:											
Number of establishments	463	127	79	63	74	38	31	24	12	14	1
Number of employees (average for the year)	53,237	302	521	852	2,168	2,694	4,770	8,674	9,029	24,227	(d)
Value added by manufacture	\$245,144	\$1,420	\$2,495	\$3,963	\$8,958	\$12,730	\$21,814	\$42,207	\$45,557	\$106,000	(d)
Optical instruments and lenses:											
Number of establishments	114	39	22	19	16	6	9	1		2	
Number of employees (average for the year)	6,488	102	149	271	537	389	1,295	(d)		3,715	
Value added by manufacture	\$26,743	\$470	\$590	\$1,177	\$2,248	\$1,346	\$6,068	(d)		\$14,844	
Surgical and medical instruments:											
Number of establishments	139	43	17	22	26	17	9	4		1	
Number of employees (average for the year)	6,980	102	112	316	769	1,169	1,474	(d)		3,058	
Value added by manufacture	\$30,214	\$457	\$507	\$1,307	\$2,991	\$5,626	\$6,647	(d)		\$12,679	
Surgical appliances and supplies:											
Number of establishments	628	273	118	103	62	37	21	5	4	5	
Number of employees (average for the year)	22,315	591	774	1,393	1,900	2,587	3,352	1,690	2,505	7,493	
Value added by manufacture	\$111,526	\$2,549	\$3,259	\$5,420	\$7,129	\$12,444	\$15,093	\$9,028	\$15,119	\$41,485	
Dental equipment and supplies:											
Number of establishments	213	89	36	38	16	14	12	5	2	1	
Number of employees (average for the year)	9,074	183	236	526	438	946	1,909	1,644	3,122	(d)	
Value added by manufacture	\$42,926	\$1,055	\$1,175	\$2,656	\$2,218	\$5,472	\$7,624	\$0,688	\$16,007	(d)	
Ophthalmic goods:											
Number of establishments	184	36	24	27	39	22	23	7	4		2
Number of employees (average for the year)	22,457	80	147	377	1,341	1,586	3,413	2,320	(d)		13,199
Value added by manufacture	\$81,530	\$432	\$440	\$1,333	\$4,888	\$5,992	\$14,679	\$6,440	(d)		\$47,525

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947

[The first column shows the total value of shipments of the specified industry, divided among: (A) products classified in (primary to) the industry, (B) products classified in other industries (secondary to the specified industry), and (C) miscellaneous receipts. The second column shows the value of shipments of the primary products of the specified industry reported by establishments in other industries. The third column shows the total value of shipments of the primary products of the specified industry by all reporting manufacturers]

[Money figures in thousands of dollars]

SCIENTIFIC INSTRUMENTS INDUSTRY	Shipped by—			SURGICAL AND MEDICAL INSTRUMENTS INDUSTRY	Shipped by—		
	Scientific instruments industry	Other industries	All industries		Surgical and medical instruments industry	Other industries	All industries
Total shipments by the industry	\$126,703			Total shipments by the industry	\$45,121		
A. Laboratory, scientific, and engineering instruments (except electrical quantity measuring, surgical, medical, and dental).....	97,887	\$18,410	\$116,297	A. Surgical and medical instruments.....	36,185	\$5,142	\$41,327
Aircraft flight instruments and automatic pilots.....	(^d)	(^d)	20,478	B. Secondary products.....	7,311		
Surveying and drafting instruments. Other laboratory scientific and engineering instruments.....			27,095	Surgical and orthopedic appliances and supplies.....	3,162		
B. Secondary products.....	21,451		68,724	Other secondary products, including clinical thermometers.....	4,149		
Aircraft and nautical instruments and apparatus, except flight instruments.....	3,194			C. Miscellaneous receipts.....	1,625		
Industrial process instruments.....	1,305						
Other secondary products.....	16,952						
C. Miscellaneous receipts.....	7,365						
Repair work.....	2,726						
Nonmanufacturing activities.....	4,381						
Other receipts.....	258						
MECHANICAL MEASURING INSTRUMENTS INDUSTRY	Shipped by—			SURGICAL APPLIANCES AND SUPPLIES INDUSTRY	Shipped by—		
Mechanical measuring instruments industry	Other industries	All industries	Surgical appliances and supplies industry		Other industries	All industries	
Total shipments by the industry	\$376,473			Total shipments by the industry	\$251,396		
A. Mechanical measuring and controlling instruments.....	302,059	\$58,093	\$360,152	A. Surgical appliances and supplies.....	207,123	\$19,155	\$226,278
Aircraft and nautical instruments.....	28,380	7,488	35,868	Surgical and orthopedic appliances and supplies.....	130,491	14,543	145,034
Integrating meters, nonelectrical types.....	55,922	7,340	63,262	Personal safety devices, n.e.c.....	29,317	2,880	32,197
Industrial process instruments.....	171,308	20,697	192,005	Sanitary napkins and tampons.....	47,315	1,732	49,047
Motor vehicle instruments.....	21,884	17,611	39,495	B. Secondary products.....	42,127		
Other mechanical measuring instruments.....	12,609	4,585	17,194	Professional furniture.....	1,771		
Mechanical measuring and controlling instruments, not reported by kind.....	11,956	372	12,328	Lighting fixtures.....	1,620		
B. Secondary products.....	60,133			Other products (paper products, perfumes, cosmetics, etc.).....	38,736		
Electrical instruments, panel, switchboard, and portable types.....	2,157			C. Miscellaneous receipts.....	2,146		
Scientific and professional instruments.....	3,509						
Other secondary products (box making machines, motor vehicles parts, valves, etc.).....	54,467						
C. Miscellaneous receipts.....	14,281						
Contract and commission work.....	1,817						
Repair work.....	4,914						
Scrap and salable refuse.....	2,191						
Nonmanufacturing activities.....	5,359						
OPTICAL INSTRUMENTS AND LENSES INDUSTRY	Shipped by—			DENTAL EQUIPMENT AND SUPPLIES INDUSTRY	Shipped by—		
Optical instruments and lenses industry	Other industries	All industries	Dental equipment and supplies industry		Other industries	All industries	
Total shipments by the industry	\$36,081			Total shipments by the industry	\$71,102		
A. Optical instruments and lenses.....	31,888	\$13,666	\$45,554	A. Dental instruments, equipments, and supplies.....	67,567	\$4,493	\$72,060
B. Secondary products.....	3,205			B. Secondary products.....	1,814		
C. Miscellaneous receipts.....	988			C. Miscellaneous receipts.....	1,721		
OPTICAL INSTRUMENTS AND LENSES INDUSTRY	Shipped by—			OPHTHALMIC GOODS INDUSTRY	Shipped by—		
Optical instruments and lenses industry	Other industries	All industries	Ophthalmic goods industry		Other industries	All industries	
Total shipments by the industry	\$120,314			Total shipments by the industry	\$120,314		
A. Ophthalmic goods.....	102,126	\$3,212	\$105,338	A. Ophthalmic goods.....	102,126		
B. Secondary products.....	16,316			B. Secondary products.....	16,316		
Optical instruments and lenses.....	11,781			Optical instruments and lenses.....	11,781		
Pressed and blown glassware.....	1,001			Other products.....	3,534		
Other products.....	3,534			C. Miscellaneous receipts.....	1,872		
C. Miscellaneous receipts.....	1,872			Scrap and salable refuse.....	1,435		
Scrap and salable refuse.....	1,435			Other miscellaneous receipts.....	437		
Other miscellaneous receipts.....	437						

^d Withheld to avoid disclosing figures for individual companies.

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	1947		1939	
	Total shipments and interplant transfers		Total production for sale and interplant transfer	
	Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Aircraft and nautical instruments and apparatus, except flight instruments and radio aids	(M units)	\$35,868	(M units)	n.a.
Aircraft engine instruments.....		4,992		n.a.
Other aircraft and nautical instruments, except flight instruments and radio aids.....		30,876		n.a.
Integrating meters, nonelectrical types		63,262		\$19,810
Gas meters.....	1,355	22,459	769	7,503
Water meters.....	1,338	23,246	577	6,650
Other liquid meters, including gasoline dispensing.....		17,557		5,657
Industrial process instruments, including indicating, recording, and controlling instruments (except electrical quantity measuring and automotive types)		192,005		n.a.
Thermometers:				
Industrial and laboratory.....		12,549	n.a.	3,659
Clinical.....	9,296	5,360	n.a.	1,575
Household.....	13,494	4,051	n.a.	1,431
Temperature instruments, other than thermometers.....		74,028		20,076
Pressure and vacuum instruments.....		27,535		n.a.
Fluid flow and liquid instruments.....		19,211		3,942
Other industrial process instruments (except electrical quantity measuring and automotive types).....		36,066		
Physical properties testing and inspection equipment, including hardness, strength of materials, wear, abrasion, and similar testers.....		13,205		
Motor vehicle instruments		39,495		n.a.
Speedometers for motor vehicles.....		11,433		
Other motor vehicle instruments for indicating electrical quantities (fuel level, oil pressure, etc.).....		28,062		
Other mechanical measuring and controlling instruments		17,194		
Mechanical measuring and controlling instruments, not specified by kind.....		12,328		
Laboratory, scientific, and engineering instruments (except electrical quantity measuring, surgical, medical, and dental)		116,297		n.a.
Aircraft flight instruments and automatic pilots, except compasses.....		20,478		
Surveying and drafting instruments.....		27,095		n.a.
Other laboratory, scientific and engineering instruments (except electrical quantity measuring, surgical, medical, and dental).....		68,724		
Optical instruments and lenses		45,554		n.a.
Photographic and projection lenses and prisms.....		21,087		
Optical measuring instruments (refractometers, colorimeters, spectrometers, spectrographs, spectrophotometers, polariscopes, contour projectors, metallographic equipment, etc.).....		3,909		638
Field glasses, prismatic and nonprismatic; terrestrial and celestial telescopes.....		4,293		7,247
Other optical instruments, lenses, parts and accessories, including microscopes, microprojectors, and photomicrographic equipment.....		16,265		
Surgical and medical instruments		41,327		
Surgical instruments:				
Steel instruments for general surgery.....		6,630		
Soft metal instruments such as speculums, etc.....		1,103		
Surgical knives and blades.....		1,016		
Suture needles.....		935		n.a.
Orthopedic instruments, such as bone drills, bone plates, etc.....		1,663		
Veterinary instruments (including instruments for horses, cattle, small animals, and poultry).....		890		
Diagnostic apparatus (including electromedical).....		13,860		
Hypodermic syringes.....		8,394		
Hypodermic needles.....		4,112		
Other surgical and medical instruments and those not specified by type.....		2,734		
Surgical and orthopedic appliances and supplies		145,034		n.a.
Surgical and hospital sterilizers.....		6,029		1,171
Surgical dressings.....		40,705		20,070
Sterile surgical sutures.....		8,436		3,756
Unsterilized suture materials.....		3,791		1,710
Artificial limbs (prosthetic).....		4,865		1,850
Arch supports and other foot appliances.....		3,168		
Trusses.....		3,851		1,929
Adhesive plaster (medicated and nonmedicated).....		20,300		9,739
Elastic stockings, elastic braces, suspensories, and other elastic supports.....		13,174		
Orthopedic appliances (braces).....		2,581		9,908
Other surgical and orthopedic supplies and appliances (catheters, anesthesia apparatus, corn removers, bunion pads, etc.).....		32,144		
Personal safety devices, not elsewhere classified (such as safety kits, snake bite outfits, safety helmets, etc.).....		32,197		n.a.
Sanitary napkins and tampons	(M gross dozens)	49,047		15,710
Sanitary napkins.....	1,832	37,948		n.a.
Tampons.....	638	11,099		

See footnotes at end of table.

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939—Continued

PRODUCT	1947		1939	
	Total shipments and interplant transfers		Total production for sale and interplant transfer	
	Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Dental instruments, equipment, and supplies, total.....		\$72,060		\$29,919
Dental metals ⁴	(M troy ounces) 598	17,910	n.a.	8,256
Dental alloys for amalgams.....	1,172	1,612	n.a.	(⁵)
Porcelain and resinous teeth.....	(M teeth) 123,264	11,248	n.a.	6,951
Denture materials.....		2,943		⁶ 1,412
Waxes, cements, low-fusing alloys, impression materials, and other consumable supplies.....		4,721		2,418
Dental gypsum products (including investments, plasters, stones).....		892		1,160
Burrs, drills, abrasive points, wheels, disks, and similar tools for use with hand pieces.....		3,831		843
Dental hand instruments (forceps, pliers, broaches, cutting instruments, etc.).....		3,267		
Dental office equipment (including dental chairs, equipment units, cabinets, lights, etc.).....		14,588		
Dental laboratory equipment (including furnaces, casting machines, lathes, benches, polishing units, flasks, blow pipes, presses, etc.).....		2,031		⁸ 8,880
Other dental products, n.e.c. ⁷		4,648		
Dental instruments, equipment, and supplies, not specified by kind.....		3,469		
Ophthalmic goods.....	(M units)	105,338		36,246
Ophthalmic metal frames, mountings, and parts:				
Semirimless mountings.....	6,184	12,045		
Other metal frames, mountings, and temples or parts shipped separately ⁹	3,064	8,503		
Other ophthalmic frames, except metal ¹⁰	17,033	16,707	n.a.	16,187
Sun glass frames:				
Quantity reported.....	3,655	2,823		
Quantity not reported.....		652		
Ophthalmic focus lenses:				
Single vision lenses, ground and polished.....	37,773	14,432		
Single vision moulded blanks:				
Quantity reported.....	6,468	947	n.a.	12,264
Quantity not reported.....		284		
Multivision lenses (bifocals and trifocals; finished, semifinished, and blanks).....	15,386	19,890		
Industrial goggles, eye protectors, mountings, and parts.....		5,860		2,534
Sun or glare glasses and sun goggles.....	23,666	11,534		4,372
Other ophthalmic goods, instruments, apparatus, and accessories ¹¹		8,628		2,889
Ophthalmic goods, not specified by type.....		3,033		

n.a.—Not available.

¹ Excludes some speedometers produced by plants of motor vehicle companies for incorporation into cars and trucks of their own assembly.² Includes electrocardiograph, metabolism, blood pressure apparatus, etc.³ Includes cotton gauze and bandages in all their various forms and applications.⁴ Dental metals are made to some extent by secondary smelters and refiners, but the amount of such shipments was not reported separately and is therefore not included in these figures. The 1939 data cover only dental gold.⁵ Included in the \$3,880,000 for other dental products.⁶ Excludes rubber denture materials.⁷ Includes dental sterilizers and excludes dental X-ray machines.⁸ Includes dental alloys and amalgams.⁹ Quantity includes only the total number of metal frames and mountings.¹⁰ Includes zylonite and shell, with and without metal parts.¹¹ Includes slit lamps, test charts, simple readers and magnifiers, cases, holders, etc.

TABLE 7.—SELECTED MATERIALS CONSUMED IN THE MECHANICAL MEASURING INSTRUMENTS INDUSTRY, BY KIND: 1947

[The table below summarizes the consumption of selected metal shapes by manufacturers during 1947. For each shape, manufacturing establishments were required to report consumption, in quantity and cost, provided that such usage during 1947 exceeded the following amounts: for iron castings, steel castings, each of six carbon steel shapes—50 short tons; for alloy steel bars and all other alloy steel—25 short tons; for stainless steel, brass and copper wire mill shapes, copper and brass castings, aluminum mill shapes and aluminum castings—10 short tons]

[Money figures in thousands of dollars]

METAL SHAPE	No. of estabs.	Short tons	Cost	METAL SHAPE	No. of estabs.	Short tons	Cost
Iron castings, rough and semifinished.....	34	13,307	\$3,413	Steel mill shapes and forms—Continued			
Steel castings, rough and semifinished.....	6	7,060	2,211	Alloy steel, except stainless:			
Steel mill shapes and forms.....	n.a.	41,204	5,012	Bars and bar shapes.....	7	854	\$194
Carbon steel:				All other mill shapes and forms.....	25	702	807
Bars and bar shapes.....	18	6,163	744	Stainless steel.....			
Sheet and strip.....	33	22,922	2,961	Copper and copper-base alloy:			
Structural shapes.....	5	1,004	78	Brass and wire mill shapes and forms.....	55	12,511	7,820
Plates.....	7	5,716	548	Castings, rough and semifinished.....	20	2,200	2,381
Wire.....	5	1,812	311	Aluminum:			
All other mill shapes and forms.....	(¹)	1,881	269	Aluminum mill shapes.....	12	652	304
				Castings, rough and semifinished.....	21	1,950	2,059

n.a.—Not available.

¹ Less than 5 establishments.

PHOTOGRAPHIC EQUIPMENT; CLOCKS, WATCHES, AND WATCHCASES

This report shows the 1947 Census of Manufactures statistics for establishments engaged primarily in the production of photographic equipment and supplies; watches, clocks, and parts; and watchcases. These establishments have been classified in three industries described separately below.

Photographic Equipment (*Full Standard Industrial Classification title and number: Photographic Equipment and Supplies, 3861.*)—This industry comprises establishments primarily engaged in manufacturing photographic apparatus, equipment, and supplies. Important products of this industry include apparatus such as still cameras, motion picture cameras, projection apparatus, photocopy and microfilm machines; equipment such as plate and film holders, tripods, film reels, developing tanks and machines, enlargers, and motion picture screens; and supplies such as sensitized film, paper, and plates; and prepared developers, fixers, and toners. Establishments primarily engaged in manufacturing photographic paper stock (unsensitized), paper mats, mounts, easels, and folders are classified in Major Group 26, chemicals for photographic or technical purposes in Major Group 28, photographic glass in Major Group 32, and photographic lenses in Industry 3831. The processing of film and the respooling of film are considered nonmanufacturing activities and are excluded from the census.

Watches and Clocks (*Full Standard Industrial Classification title and number: Watches, Clocks, and Parts (except watchcases), 3871.*)—This industry comprises establishments primarily engaged in manufacturing clocks (including electric), watches, mechanisms for clockwork-operated devices, and clock and watch parts. This industry includes establishments primarily engaged in assembling clocks and watches from purchased movements and cases. Establishments primarily engaged in manufacturing watchcases are classified in Industry 3872, glass crystals in Industry 3231, and unbreakable crystals in Industry 3971. Establishments primarily engaged in manufacturing time-recording clocks, time-stamp machines, and watchmen's clocks are classified in Industry 3579. The purchase of complete watches and the attachment of straps or bands thereto is not considered a manufacturing activity.

Time-recording and time-stamp machines were classified in the Watches and Clocks Industry in 1939. However, the 1939

data have been retabulated and included in Industry 3579, Office and Store Machines, Not Elsewhere Classified.

A review of the 1939 reports for this industry indicates that there was an undercoverage of assemblers of watches with imported movements. The extent of this undercoverage is not known. Prior to 1939, this industry excluded establishments assembling watches from purchased movements and purchased cases. Therefore, data for 1937 and earlier years, also, are not strictly comparable with those for 1947.

There is some duplication in the cost of materials and value of shipments for this industry due to interplant transfers of parts and components of clocks and watches by multi-plant companies. The total value of these transfers is shown separately in table 6-A and amounted to \$28.1 million, or slightly less than 10 percent of the total shipments for the industry.

In any comparison of the Census of Manufactures figures on shipments of watches produced with imported movements and the data on imports of watch movements during 1947 published by the Foreign Trade Division of the Census Bureau, the following differences of coverage should be noted. Watches imported already cased have been excluded from the product data in the 1947 census. Also, the Census of Manufactures has excluded data for establishments with no employees and establishments primarily engaged in retailing, wholesaling or repair work. These nonmanufacturing activities accounted for 10 to 15 percent of the watch movements imported in 1947.

Comparable 1939 data for watches shipped, by type of watchcase, are shown in table 6-B. The 1939 schedules were retabulated to provide such data. However, 1939 figures were not available to show separately watches produced with domestic movements and watches produced with imported movements. For wrist watches, table 6-B shows additional detail for 1947 by the type of material of which the watchcase was made.

Watchcases (*Standard Industrial Classification No. 3872.*)—This industry comprises establishments primarily engaged in the manufacture of watchcases, for sale as such. Establishments whose primary activity is the assembling of watches from purchased movements and watchcases of their own manufacture are classified in Industry 3871, Watches, Clocks, and Parts (Except Watchcases). Where one establishment makes watchcases which are transferred to other establishments of the same company for assembly into complete watches, the establishment producing the watchcases is included in the Watchcases Industry.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year) ⁴	Salaries and wages, total ⁵	Number (average for the year) ⁶	Wages, total ⁷			
Photographic equipment:								
1947	366	50,911	\$154,416	36,273	\$101,765	\$264,784	\$175,350	\$440,134
1939	180	23,248	88,873	16,434	23,868	87,816	45,236	133,052
1937	108	22,212	89,705	18,450	28,876	79,235	36,653	115,888
1935	118	15,460	23,208	12,000	15,807	47,816	26,150	73,966
1933	84	10,789	14,131	8,975	10,155	41,875	11,985	53,860
1929	115	16,302	28,371	12,967	20,507	72,434	30,393	102,827
1921	130	14,376	20,854	10,690	13,771	47,759	22,836	70,595
1919	187	16,300	19,478	13,465	14,900	54,586	33,807	88,393
1914	146	11,143	8,706	8,674	5,545	27,503	11,539	39,042
1909	103	6,537	4,499	5,195	3,037	15,853	6,708	22,561
1899	153	3,913	1,896	3,444	1,441	4,421	3,378	7,799

See footnotes at end of table.

CENSUS OF MANUFACTURES: 1947

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS—Continued

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Watches and clocks:								
1947	194	34,623	\$93,331	30,237	\$70,372	\$100,474	\$171,725	\$341,199
1939	64	n.a.	n.a.	17,335	19,619	47,169	34,306	81,475
1937	75	25,785	33,250	23,223	27,559	59,490	38,444	97,934
1935	76	20,291	22,596	18,026	18,280	38,530	22,674	61,204
1933	53	14,242	12,245	12,850	10,003	22,188	9,468	31,656
1931	75	n.a.	n.a.	16,213	15,086	32,683	12,880	45,563
1929	81	23,924	31,422	21,450	25,750	56,079	21,388	77,467
1927	80	24,726	32,396	22,472	27,284	55,533	16,250	71,783
1925	83	24,412	30,663	22,361	26,274	51,523	15,474	66,997
1923	80	22,983	28,047	21,326	24,120	43,086	17,387	60,473
1921	77	20,810	24,020	19,099	20,585	31,125	12,108	43,233
1919	91	26,752	28,684	24,722	24,873	42,640	14,120	56,766
1914	88	21,186	13,448	19,814	11,557	19,302	7,020	26,322
1909	91	n.a.	n.a.	19,288	10,516	18,586	6,096	24,682
1904	69	19,226	10,864	18,358	9,721	15,719	5,444	21,183
1899	79	13,689	7,057	13,248	6,300	9,901	4,425	14,326
Watchcases:								
1947	82	5,558	16,980	4,880	13,091	24,986	19,508	44,404
1939	42	3,083	4,298	2,409	2,940	5,804	3,988	9,792
1937	29	2,868	4,126	2,451	3,156	6,176	4,182	10,358
1935	29	2,364	3,070	2,016	2,329	4,207	2,776	6,983
1933	20	1,316	1,216	1,169	1,006	1,807	760	2,687
1931	31	n.a.	n.a.	1,669	1,767	2,858	1,361	4,219
1929	40	3,021	5,052	3,404	4,626	8,860	4,631	13,491
1927	40	3,944	5,799	3,360	4,326	8,414	5,311	13,725
1925	45	4,025	5,527	3,480	4,463	8,743	6,050	14,793
1923	57	4,987	6,796	4,325	5,414	10,318	7,409	17,817
1921	37	4,323	5,293	3,698	4,217	8,181	5,625	13,806
1919	33	4,572	5,317	3,900	4,001	11,413	8,206	19,619
1914	31	3,832	2,351	3,514	1,938	3,820	4,002	7,831
1909	29	n.a.	n.a.	4,569	2,428	5,481	5,034	10,515
1904	28	4,602	2,785	4,221	2,171	4,198	4,429	8,627
1899	30	4,142	2,214	3,907	1,925	3,390	4,394	7,784

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.² Figures for years prior to 1935 do not include cost of contract work.³ For 1947, the figures represent value of products shipped; for prior years, the figures represent value of products made except in the case of "Photographic equipment" in 1929 where they represent value of products shipped. See GENERAL EXPLANATIONS—Value of products shipped.⁴ Revised.⁵ The figures for 1914 and later years include data for motion picture machines, whereas those for 1899 and 1909 exclude data for this product. Value added in 1914, excluding data for motion picture machines and on a basis comparable with earlier years, was \$26.3 million.⁶ The returns for 1939, but not for earlier years, have been retabulated to provide figures comparable with those for 1947. Value added for 1939, before retabulation and on a basis comparable with earlier years, was \$49.6 million.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947

[Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Photographic equipment, total¹	366	50,911	\$154,416	36,273	75,452	\$101,765	\$264,784	\$175,350	\$440,134	\$23,145
New England	14	1,647	4,409	1,416	3,111	3,607	7,128	5,073	12,201	358
Massachusetts	8	1,256	3,249	1,110	2,447	2,739	5,319	4,302	9,681	274
Middle Atlantic	139	37,357	114,489	25,814	53,126	73,988	196,900	121,375	318,284	19,780
New York	117	34,566	105,686	23,498	48,622	67,347	180,440	111,614	292,054	18,734
New Jersey	14	2,657	8,491	2,218	4,392	6,420	15,954	9,238	25,192	1,032
Pennsylvania	8	134	312	98	212	221	516	523	1,038	14
East North Central	108	8,060	26,506	6,466	13,946	17,587	44,935	38,594	83,529	1,886
Ohio	13	443	1,257	333	696	785	2,090	1,511	3,601	64
Illinois	72	6,868	21,016	5,069	11,137	13,819	36,197	32,121	68,318	1,467
Michigan	15	1,227	3,852	968	1,916	2,719	6,100	4,511	10,620	283
West North Central	19	1,399	3,574	1,135	2,300	2,703	6,408	4,603	11,011	499
Missouri	11	420	1,121	320	670	679	1,980	1,702	3,682	100
South	11	223	515	162	351	356	544	509	1,053	55
Texas	5	158	336	125	270	273	385	294	679	47
West	75	1,625	4,923	1,280	2,618	3,524	8,860	5,190	14,056	567
California	67	1,229	3,751	962	1,932	2,718	5,980	3,592	9,542	536
Watches and clocks, total¹	194	34,623	93,331	30,237	60,899	70,372	169,474	171,725	341,199	4,743
New York	112	5,574	16,959	3,439	7,116	9,143	46,167	78,288	124,455	297
Illinois	23	8,414	2,767	7,452	14,195	16,666	32,366	28,081	60,447	1,355
Watchcases, total¹	82	5,558	16,980	4,880	10,199	13,091	24,986	19,508	44,494	521
New York	72	2,201	8,230	2,003	4,025	5,789	12,547	11,135	23,082	120

¹ For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.**Photographic equipment:** New England, New Hampshire, 1; Connecticut, 5; East North Central, Indiana, 3 (37); Wisconsin, 5 (85); West North Central, Minnesota, 4 (364); Iowa, 2; South Dakota, 1; Nebraska, 1; South, District of Columbia, 1; West Virginia, 1; Tennessee, 1; Louisiana, 1; Oklahoma, 2; West, Idaho, 1; Colorado, 3 (220); Washington, 1; Oregon, 3.**Watches and clocks:** New Hampshire, 1; Massachusetts, 8 (4,145); Connecticut, 13 (10,080); New Jersey, 5 (315); Pennsylvania, 5 (2,892); Ohio, 6 (696); Indiana, 5 (123); Michigan, 2; Wisconsin, 1; Minnesota, 4 (402); Nebraska, 1; Arkansas, 1; California, 7 (53).**Watchcases:** Rhode Island, 1; Connecticut, 3 (472); New Jersey, 2; Pennsylvania, 1; Ohio, 1; Michigan, 1; Kentucky, 1.

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS]

ITEM	Industry			ITEM	Industry		
	Photo-graphic equipment	Watches and clocks	Watch-cases		Photo-graphic equipment	Watches and clocks	Watch-cases
ALL ESTABLISHMENTS				ESTABLISHMENTS REPORTING DETAILED STATISTICS—Continued			
Number of establishments	366	194	82	Cost of materials, fuel, electricity, and contract work	\$173,864	\$167,908	\$18,472
All employees:				Materials, parts, containers, and supplies	167,276	165,474	17,876
Number (average for the year)	50,911	34,623	5,558	Fuels, total	1,610	549	78
Salaries and wages, total	\$154,416	\$93,331	\$16,980	Bituminous coal	1,120	394	21
Production and related workers:				Anthracite	83	2	2
Number (average for the year)	36,273	30,237	4,880	Coke	1	1	2
Man-hours, total	75,452	60,899	10,199	Fuel oils	193	101	16
Wages, total	\$101,765	\$70,372	\$13,091	Gas	102	47	38
Value added by manufacture	\$264,784	\$169,474	\$24,986	Other fuels	11	5	1
ESTABLISHMENTS REPORTING DETAILED STATISTICS				Purchased electric energy	1,710	597	167
Number of establishments	273	147	50	Contract and commission work	3,168	1,288	351
All employees:				Value of inventories:			
Number (average for the year)	50,454	34,376	5,411	Beginning of year, total	\$86,405	\$56,263	\$12,060
Salaries and wages, total	\$153,324	\$92,639	\$16,537	Finished products	16,446	10,030	1,164
Production and related workers:				Materials, supplies, and work in process	69,959	46,233	10,896
Number (average for the year)	35,831	30,002	4,737	End of year, total	98,503	58,541	11,468
Man-hours, total	74,567	60,424	9,912	Finished products	20,170	12,276	1,336
Wages, total	\$100,736	\$69,655	\$12,674	Materials, supplies, and work in process	78,333	46,266	10,132
Value added by manufacture	\$262,918	\$167,825	\$24,270	Expenditures for plant and equipment:			
Number of employees for pay period ended nearest Oct. 15:				New plant and equipment	\$23,145	\$4,743	\$521
All employees	50,508	34,526	5,586	Construction and major alteration of fixed plants	7,485	338	90
Male	35,388	15,324	3,455	Buildings	7,412	334	89
Female	15,118	19,202	2,131	Other construction	73	4	1
Production and related workers	36,057	30,045	4,916	Machinery and equipment	15,660	4,405	431
Male	25,033	12,751	3,092	Production machinery and equipment	13,415	4,004	411
Female	11,024	17,295	1,824	Other machinery and equipment	2,245	401	20
Force-account construction workers	776	4	670	Used plant and equipment, and land	2,025	546	83
Administrative, supervisory, sales, and all other	13,673	4,476	670	Number of highway-type motor vehicles owned or leased:			
Male	9,606	2,589	363	Trucks	247	51	5
Female	4,067	1,907	307	By manufacturer's rated capacity:			
All employees, number by month:				Under 1½ tons	111	18	2
January	50,772	33,852	5,656	1½ tons	48	16	3
February	50,506	34,457	5,585	Over 1½ tons and less than 3½ tons	32	11	—
March	50,653	34,995	5,519	3½ tons and less than 5 tons	7	3	—
April	50,628	34,375	5,398	5 tons and over	49	3	—
May	50,261	34,566	5,262	By body type:			
June	50,170	34,303	5,247	Van	56	12	—
July	50,362	33,487	5,233	Stake or platform	42	7	2
August	50,621	33,657	5,295	Panel or light delivery	92	21	2
September	50,348	34,177	5,438	All other trucks	57	11	1
October	50,506	34,526	5,586	Truck tractors	7	—	—
November	50,721	35,072	5,470	Trailers and semitrailers	46	—	—
December	50,278	34,925	5,177				

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A ^d appears in the column where the figure has been omitted and the combined figure is printed in italics]

INDUSTRY AND ITEM	Total, all establishments	Establishments with an average of—									
		1-4 em- ployees	5-9 em- ployees	10-19 em- employees	20-49 em- employees	50-99 em- employees	100-249 em- employees	250-499 em- employees	500-999 em- employees	1,000-2,499 employees	2,500 employees and over
Photographic equipment:											
Number of establishments	366	103	57	58	60	29	32	12	7	5	3
Number of employees (average for the year)	50,911	228	371	797	1,866	1,957	5,142	3,803	5,416	31,331	(^d)
Value added by manufacture	\$264,784	\$1,047	\$1,876	\$3,931	\$8,989	\$8,195	\$25,071	\$17,046	\$26,713	\$171,916	(^d)
Watches and clocks:											
Number of establishments	194	49	34	38	27	7	13	10	4	8	4
Number of employees (average for the year)	34,623	105	226	612	871	479	2,068	3,685	3,100	11,431	12,152
Value added by manufacture	\$169,474	\$1,092	\$2,359	\$5,987	\$5,254	\$6,930	\$10,694	\$35,014	\$15,338	\$43,867	\$42,939
Watchcases:											
Number of establishments	82	25	14	12	11	7	8	1	4	—	—
Number of employees (average for the year)	5,558	49	90	190	342	455	1,329	(^d)	3,103	—	—
Value added by manufacture	\$24,986	\$336	\$352	\$1,064	\$2,494	\$2,387	\$6,981	(^d)	\$11,372	—	—

PHOTOGRAPHIC EQUIPMENT; CLOCKS, WATCHES, AND WATCHCASES

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TABLE 6-A.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	Unit of measure	1947		1939	
		Total shipments and interplant transfers		Total production for sale and interplant transfer	
		Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Photographic equipment and supplies, total			\$433, 807		\$126, 613
Motion picture equipment, except film			90, 102		n.a.
Cameras:					
35 mm.....	Number.....	341	1, 820		
16 mm.....	do.....	51, 008	5, 556		4, 607
8 mm.....	do.....	274, 122	14, 904		
Projectors:					
35 mm.....					
Standard projector mechanisms (including unit-type projectors)	do.....	6, 841	4, 035	2, 726	\$1, 287
Sound reproducing equipment.....			2, 822		n.a.
Arc lamphouses.....	do.....	8, 060	1, 965		n.a.
16 mm sound.....	do.....	57, 409	17, 906		
16 mm silent.....	do.....	35, 449	4, 133	134, 515	6, 303
8 mm.....	do.....	215, 533	15, 437		
Motion picture projection screens.....			5, 599		n.a.
Developing and printing equipment for motion picture film.....			1, 679		n.a.
Parts, attachments, accessories, and other miscellaneous equipment (excluding lenses for sale separately).....			14, 246		n.a.
Still picture equipment, except film			95, 822		n.a.
Still cameras (excluding photocopying and microfilming):					
Hand type cameras.....					
Variable focus (or focusing type) with adjustable shutter speeds					
Using roll film, 35 mm or under.....	do.....	322, 392	11, 075		
Using roll film, over 35 mm and sheet and pack film.....	do.....	402, 368	11, 796		
Fixed focus and/or time and single shutter speed					
Using roll film, 35 mm or under.....	do.....	134, 434	934		
Using roll film, over 35 mm.....	do.....	5, 427, 724	15, 450		12, 739
View and studio cameras (designed primarily for use on tripod or stand)	do.....	14, 774	964		
Process cameras for photoengraving and photolithography ¹					
Under 31" x 31".....	do.....	758	1, 530		
31" x 31" and over.....	do.....	105	617		
Other still cameras (excluding photocopying and microfilming).....	do.....	1, 691	1, 940		
Photocopying equipment (including contact type).....			3, 529		n.a.
Blueprinting and Van Dyke equipment, and whiteprinting equipment (direct process type).....			5, 773		
Projectors, including slide, lantern, strip film, etc.....			5, 584		824
Enlargers ⁴	Number of heads.....	79, 825	4, 482	n.a.	n.a.
Other still picture equipment, parts, attachments, accessories (excluding lenses for sale separately), and microfilming equipment (including cameras, readers, and microfilming enlargers).....			31, 444		n.a.
Still picture equipment, except film, not specified by type.....			704		n.a.
Film	TSPSM in 000's ⁵	619, 142	142, 773		66, 588
X-ray film.....	do.....	102, 134	31, 525		10, 237
Photographic glass plates and slides.....	do.....	4, 863	2, 479		868
Sheet film and pack film.....	do.....	32, 078	12, 596	n.a.	55, 493
Graphic arts film (requiring paraformaldehyde developer).....	do.....	29, 271	7, 234		
Other film, including motion picture black and white and color film, amateur roll film, still color film, aerofilm, microfilm, etc. ⁶	do.....	450, 796	88, 939		
Photographic (sensitized) paper and cloth			60, 079		21, 204
Blueprint type.....	do.....	852, 101	5, 945		3, 316
Silver halide type.....					
Designed for continuous-tone reproduction (photo finishing, portraiture, etc.)	do.....	523, 321	30, 034	n.a.	
Designed for line reproduction, photocopying and recording.....	do.....	284, 420	11, 541		
Van Dyke type.....	do.....	41, 410	814		17, 888
Diazo type.....	do.....	895, 255	9, 276		
Photographic (sensitized) paper and cloth, not specified by type.....			2, 469		
Prepared photographic chemicals (developers, fixers, and toners).....			9, 199		(1)
Other photographic equipment and supplies (largely film base, paper base and other raw materials) ⁷			35, 832		n.a.

See footnotes at end of table.

TABLE 6-A.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939—Continued

PRODUCT	Unit of measure	1947		1939	
		Total shipments and interplant transfers		Total production for sale and interplant transfer	
		Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Clocks and clock parts			\$103,634		\$25,933
Electric clocks, complete, frequency motor:					
Alarm.....	Number	4,036,633	13,162	929,336	2,058
Household, except alarm ²	do.	5,693,175	21,376	2,162,916	5,099
Commercial.....	do.	511,992	3,307		
Spring wound and weight operated clocks:					
Alarm.....	do.	14,717,550	27,733	10,070,668	8,034
Household, except alarm ²	do.	436,871	3,118	1,149,420	2,546
Commercial.....	do.	14,145	481		
Automobile, including manual and electro magnet wound.....	do.	2,924,524	13,040	1,559,672	3,374
Other clocks, complete, including tower, street, master, magnet operated secondary clocks, chronometers, etc.....			1,854		859
Clock movements, complete, for timepiece use:					
Electric.....	do.	1,579,670	3,384	416,950	444
Spring wound.....	do.	161,229	288		
Timing mechanisms, not for timepiece use, including interval timers, driving, recording, time switch and other devices, but excluding time-recording and time-stamp machines: ³					
Electric.....	do.	1,922,537	6,791		1,646
Spring wound.....	do.	3,675,266	6,245		
Clock cases and clock parts.....			2,855		973
Watches with domestic movements, and parts			93,728		
Jeweled watches—jeweled lever escapement type:					
Men's wrist.....	do.	1,092,723	28,303	(10)	(10)
Women's wrist.....	do.	1,178,648	31,009		
Pocket.....	do.	121,935	3,507		
Non-jeweled and jeweled watches—pin lever escapement type:					
Wrist.....	do.	4,282,940	17,006		
Pocket.....	do.	4,918,151	7,073		
Watch movements, complete, for sale separately ¹¹			14,021		
Watch parts, except watchcases, for sale separately ¹¹			5,085		
Watches with imported movements			105,018		
Jeweled watches—jeweled lever escapement type:					
7 jewels and under:					
Men's wrist.....	do.	333,297	3,834	(10)	(10)
Women's wrist.....	do.	430,438	5,251		
Pocket.....	do.	4,014	48		
Other.....	do.	14,404	197		
Over 7 jewels:					
Men's wrist.....	do.	1,622,051	35,047		
Women's wrist.....	do.	2,398,287	56,312		
Pocket.....	do.	68,054	1,449		
Other.....	do.	7,832	159		
Watches with imported movements, not specified by type ¹²	do.	179,613	2,121		
Interplant transfers of clock and watch parts and semi-finished components.....			28,126		
Clocks, watches and parts, not specified by type.....			2,014		
Watchcases ¹³			40,385		9,074
Men's wrist—for watches with jeweled lever escapements:					
Karat gold and platinum.....	do.	341,712	4,477	9,929	
Gold filled, rolled gold plate and sterling silver (including R.G.P. with steel back) ¹⁴	do.	3,656,342	11,272		
Women's wrist—for watches with jeweled lever escapements:					
Karat gold and platinum.....	do.	1,043,946	8,060	n.a.	n.a.
Gold filled, rolled gold plate and sterling silver (including R.G.P. with steel back) ¹⁴	do.	4,113,227	1,779		
Pocket—for watches with jeweled lever escapements.....	do.	377,107	2,220		
Wrist—for watches with pin lever escapements ¹⁵	do.	3,432,794	593		
Karat gold and platinum watchcases, not reported by type.....	do.	43,674	1,255		
Other watchcases and watchcases, not specified by type ¹⁶					

n. a.—Not available.

¹ Data for photographic chemicals were not collected separately in 1939 and were not included in this industry in 1939.² Value includes some pedestals, sound reproducing equipment, arc lamphouses, etc. for 35 mm projectors, which were not collected separately in 1939.³ Stands and attachments shipped with process cameras are included in value.⁴ Quantity includes heads shipped separately as well as complete units. Value includes the value of heads shipped separately, stands shipped separately and complete units shipped.⁵ Total square feet of sensitized material.⁶ Motion picture film, amateur roll film and other film have been combined to avoid disclosing the operations of individual companies. Motion picture film was reported in linear feet by width and has been converted to TSFSM. Amateur roll film and other film were collected in TSFSM.⁷ Includes a small amount of photographic equipment and supplies not specified by type.⁸ Includes chime and strike, kitchen, desk, mantle, wall and timers and switch clocks.⁹ Timing mechanisms which also show the time of day are included as clock movements or clock timers.¹⁰ See table 6-B for comparable 1939 data for watches.¹¹ Includes only watch parts and watch movements produced domestically. Watch parts and movements imported by watch assemblers and resold in the same condition are excluded.¹² Includes some watches with pin lever escapements.¹³ Approximately 20 percent of the total number and value of watchcases for 1947 were "transferred to other plants of the same company" where they were used in the assembly of watches.¹⁴ Includes watchcases of "other metals" amounting to less than 1 percent, which are not shown separately to avoid disclosing data for individual companies. R. G. P. represents rolled gold plate.¹⁵ Not shown separately by type of material to avoid disclosing data for individual companies.¹⁶ Includes novelty watchcases not shown separately to avoid disclosing data for individual companies.

TABLE 6-B.—WATCHES (INCLUDING WATCHES PRODUCED WITH DOMESTIC AND IMPORTED MOVEMENTS), BY TYPE OF WATCHCASE: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	1947		1939	
	Total shipments and interplant transfers		Total production for sale and interplant transfer	
	Quantity (number)	Value f.o.b. plant	Quantity (number)	Value f.o.b. plant
Jeweled watches—jeweled lever escapement type.....	7,277,683	\$166,316	3,585,884	\$40,183
Men's wrist watches.....	3,048,071	67,784	2,048,275	18,987
Karat gold and platinum.....	309,125			
Gold filled, rolled gold plate and sterling silver (including R.G.P. with steel back).....	2,615,434	n.a.	n.a.	n.a.
Other metals.....	103,362			
Not specified by type.....	20,160			
Women's wrist watches.....	4,013,373	93,172	1,405,626	19,038
Karat gold and platinum.....	686,462			
Gold filled, rolled gold plate and sterling silver (including R.G.P. with steel back).....	3,192,713	n.a.	n.a.	n.a.
Other metals.....	102,470			
Not specified by type.....	31,728			
Pocket.....	183,244	4,701	131,983	2,158
Other.....	32,995	659		
Non-jeweled and jeweled watches—pin lever escapement type.....	9,201,091	24,979	8,895,539	7,597
Wrist watches.....	4,282,940	17,906	2,007,252	3,084
Gold filled, rolled gold plate and sterling silver (including R.G.P. with steel back).....	1,216,155			
Other metals.....	3,066,785	n.a.	n.a.	n.a.
Pocket.....	4,918,151	7,073	6,888,287	4,513
Watches, complete, not specified by type.....	179,613	2,121		

n.a.—Not available.

NOTE: In order to show the relationship between the watch industry and the watchcase industry, watch plants were requested to report whether the watchcases consumed in the watches shipped were produced in their own plants or were purchased from other companies. In total, 6.0 million watchcases were produced in plants that shipped the completed watches and were classified in the watch industry. Nearly all of these were made by producers of watches with pin lever escapements. The remaining 10.6 million watchcases were purchased from other companies or received from other plants of the same company. Approximately 20 percent of these watchcases were received by the watch plants from other plants of the same company, classified in the watchcase industry.

TABLE 7.—SELECTED MATERIALS CONSUMED, BY KIND, IN THE PHOTOGRAPHIC EQUIPMENT INDUSTRY: 1947

(The table below summarizes the consumption of selected metal shapes by manufacturers during 1947. For each shape, manufacturing establishments were required to report consumption, in quantity and cost, provided that such usage during 1947 exceeded the following amounts: for iron castings, steel castings, each of six carbon steel shapes—50 short tons; for alloy steel bars and all other alloy steel—25 short tons; for stainless steel, brass and copper wire mill shapes, copper and brass castings, aluminum mill shapes and aluminum castings—10 short tons)

[Money figures in thousands of dollars]

METAL SHAPE	Establishments consuming more than specified quantities		
	Number	Short tons	Cost
Iron castings, rough and semi-finished.....	7	628	\$224
Steel castings, rough and semi-finished.....			
Steel mill shapes and forms.....	n.a.	13,785	2,222
Carbon steel:			
Bars and bar shapes.....	5	1,403	252
Sheet and strip.....	19	12,001	1,631
Structural shapes.....			
Plates.....			
Wire.....			
All other mill shapes and forms.....			
Alloy steel, except stainless:			
Bars and bar shapes.....	10	381	339
All other mill shapes and forms.....			
Stainless steel.....			
Copper and copper-base alloy:			
Brass and wire mill shapes and forms.....	12	1,337	722
Castings, rough and semi-finished.....	(1)	23	27
Aluminum:			
Aluminum mill shapes.....	16	870	585
Castings, rough and semi-finished.....	23	989	1,356

n.a.—Not available.

(1) Less than five establishments.

Major Group 39.—MISCELLANEOUS MANUFACTURES

This major group includes establishments primarily engaged in manufacturing products not classified in any other manufacturing major group. Industries in this group fall into the following categories: Jewelry, silverware, and plated ware; musical instruments;

toys, sporting and athletic goods; pens, pencils, and other office and artists' materials; buttons, costume novelties, miscellaneous notions, fabricated plastics products; brooms and brushes; morticians' goods; and other miscellaneous manufacturing industries.

GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

CENSUS YEAR	Number of establishments	All employees		Production workers		Value added by manufacture ¹
		Number (average for the year)	Wages and salaries, total	Number (average for the year)	Wages, total	
1947.....	14,131	464,420	\$1,205,508	307,570	\$920,508	\$2,090,168
1939.....	8,084	n.a.	n.a.	241,725	252,899	629,994

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

² The figures for 1947 are not entirely comparable with those for 1939 because they (a) include data for establishments primarily engaged in manufacture of rubber dolls, carousels and other amusement park rides, electric vibrators, exercisers, and reducers, which are classified for 1939 in other industry groups, and (b) exclude data for establishments primarily engaged in manufacture of cellophane bags. The figures for years prior to 1939 are not shown in this table because of further elements of noncomparability resulting from (a) the inclusion in the earlier figures of data for establishments primarily engaged in manufacture of blasting and detonating caps, safety fuses, and pressed and molded pulp goods, and (b) the exclusion of data for establishments primarily engaged in manufacture of aluminum tags and hair clippers for human use.

JEWELRY, SILVERWARE, AND PLATED WARE

This report shows 1947 Census of Manufactures statistics for establishments engaged primarily in lapidary work and in the production of precious metal jewelry, jewelers' findings, and silverware and plated ware. These establishments have been classified in four industries described separately below.

Jewelry (Precious Metal) (*Standard Industrial Classification No. 3911.*)—This industry comprises establishments primarily engaged in manufacturing jewelry and other articles (to be worn on or carried about the person) made of precious metals with or without precious stones, including cigarette cases and lighters, vanity cases and compacts; trimmings for umbrellas and canes; and jewel settings and mountings. Establishments primarily engaged in manufacturing costume jewelry from nonprecious metal, including base metals electroplated with gold, silver, etc., and other materials are classified in Industry 3961, Costume Jewelry.

Jewelers' Findings (*Full Standard Industrial Classification title and number: Jewelers' Findings and Materials, 3912.*) This industry comprises establishments primarily engaged in manufacturing unassembled jewelry parts, and stock shop products such as sheet, wire, and tubing. Establishments primarily engaged in lapidary work are classified in Industry 3913.

The stock shop products in this industry are classified according to end use, i.e., sheet, wire, and tubing for use in the manufacture of jewelry. Establishments making these products for other uses (such as brazing alloys, etc.) are classified in In-

dustry 3359, Rolling, Drawing, and Alloying of Nonferrous Metals, Not Elsewhere Classified.

Lapidary Work (*Standard Industrial Classification No. 3913.*)—This industry comprises establishments primarily engaged in all types of lapidary work, including cutting and polishing diamonds and other precious stones; drilling pearls; recutting and setting stones; preparing jewels for instruments, tools, and for watches and chronometers; and preparing real and imitation stones for settings. This work is done to some extent on a contract basis on materials owned by others, and such establishments reported their receipts for work done rather than value of products shipped.

Approximately two-thirds of the industry, as measured by employment, is located in New York. The 202 establishments in that State do the bulk of their work in precious stones.

Silverware and Plated Ware (*Standard Industrial Classification No. 3914.*)—This industry comprises establishments primarily engaged in manufacturing flatware (including knives, forks, and spoons), hollow ware, toilet ware, ecclesiastical ware, and related products made of sterling silver; of metal plated with silver, gold, or other metal; of nickel-silver; or of pewter.

For purposes of this census, flatware was defined to cover all knives, forks, spoons, etc. made wholly of metal, including stainless steel knives, forks, and spoons, and carving sets with metal handles. Knives, forks, spoons, etc., with handles of materials other than metal are defined as cutlery and included in the Cutlery Industry, 3421.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Jewelry (precious metal):								
1947	1,344	25,566	\$76,462	20,610	\$54,222	\$140,478	\$107,707	\$248,185
1939	886	15,068	22,388	11,358	14,243	36,822	34,597	71,419
1937	789	n.a.	n.a.	11,077	14,737	36,014	33,512	69,526
Jewelers' findings:								
1947	182	6,056	17,350	5,203	12,389	29,714	43,816	73,530
1939	82	3,412	4,790	2,813	2,975	7,996	14,493	22,489
1937	71	2,949	4,303	2,470	3,002	7,110	14,574	21,684
1935	73	3,099	3,865	2,663	2,728	6,179	10,991	17,170
1933	60	2,115	2,113	1,811	1,604	3,747	5,503	9,250
1931	99	n.a.	n.a.	1,899	2,343	4,855	7,121	11,976
Lapidary work:								
1947	270	1,699	5,524	1,525	4,532	10,860	19,409	30,269
1939	90	317	490	267	391	1,374	3,755	5,129
1937	51	271	426	217	306	1,048	3,343	4,391
1935	60	203	295	153	201	806	1,244	2,050
1933	34	136	154	107	124	340	483	823
1931	53	n.a.	n.a.	205	340	1,097	1,378	2,475
1929	100	629	1,399	506	1,002	3,707	8,225	11,942
1927	92	681	1,587	547	1,221	3,219	9,133	12,362
1925	83	692	1,608	589	1,285	2,850	7,273	10,123
1923	87	788	1,622	644	1,286	3,243	5,887	9,130
1921	64	516	1,112	399	738	1,505	2,840	4,345
1919	124	1,322	3,536	1,155	2,838	10,888	19,363	30,051
1914	89	688	807	584	641	1,419	3,941	5,360
1909	77	796	1,084	627	889	2,613	6,560	9,173
1904	54	609	766	507	657	1,423	6,224	7,647
1899	60	541	550	498	499	1,150	4,656	5,786

See footnotes at end of table.

CENSUS OF MANUFACTURES: 1947

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS—Continued

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Silverware and plated ware:								
1947	235	21,506	\$68,097	18,542	\$55,804	\$121,807	\$97,324	\$219,131
1939	153	n.a.	n.a.	13,166	16,574	30,628	26,415	66,043
1937	136	13,248	17,496	11,361	13,790	34,063	22,670	56,733
1935	139	11,865	14,240	10,194	11,078	28,074	15,298	43,372
1933	126	10,340	9,911	9,177	8,229	21,908	12,425	34,333
1931	163	n.a.	n.a.	11,077	12,713	34,023	11,792	45,815
1929	179	18,697	30,278	15,735	22,578	58,996	26,886	85,882
1927	178	19,558	30,085	16,719	23,945	50,047	31,377	87,424
1925	183	19,827	30,433	16,877	23,844	53,685	33,177	86,802
1923	181	20,182	29,691	17,090	22,971	50,432	30,673	81,105
1921	169	17,573	23,381	14,822	17,815	36,981	21,374	58,355
1919	167	18,976	24,039	15,945	18,273	39,834	30,827	70,761
1914	180	18,344	13,303	15,787	9,706	21,691	16,580	38,271
1909	183	18,060	13,027	16,610	10,282	23,897	18,332	42,229
1904	158	16,185	10,356	14,861	8,625	18,381	14,450	32,840
1899	169	13,334	7,988	12,205	6,531	14,455	11,059	26,114

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.² Figures for years prior to 1935 do not include cost of contract work.³ For 1947 and 1929, value of products shipped; for all other years, value of products made. See GENERAL EXPLANATIONS—Value of products shipped.⁴ For "Jewelry (precious metal)," the figures prior to 1937 are not sufficiently comparable to those for later years to be shown in this table because they include data for costume jewelry.⁵ Prior to 1931, "Jewelers' findings" was included in the "Jewelry" industry. Therefore, no separate figures are available for earlier years.⁶ Revised.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947

[Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Jewelry (precious metal), total¹	1,344	25,566	\$76,462	20,610	42,877	\$54,222	\$140,478	\$107,707	\$248,185	\$2,674
New England	219	9,589	23,921	8,096	17,119	17,876	43,488	23,788	67,276	1,285
Rhode Island	128	5,827	13,600	4,867	10,040	10,083	25,401	13,758	30,159	749
Middle Atlantic	839	11,626	39,424	9,102	18,796	27,024	72,574	65,408	137,982	1,046
New York	693	7,269	25,729	5,690	11,611	17,728	46,597	40,140	95,746	509
New Jersey	98	3,777	12,156	2,928	6,293	8,147	23,665	14,637	38,302	611
Pennsylvania	48	580	1,539	484	992	1,149	2,312	1,622	3,934	26
East North Central	97	2,100	6,723	1,632	3,330	4,735	11,990	10,500	22,490	171
Ohio	29	481	1,344	384	811	960	2,255	1,608	3,801	23
Illinois	43	640	2,232	497	1,019	1,613	3,748	3,250	6,998	46
West North Central	33	880	2,452	657	1,408	1,617	5,241	3,390	8,031	60
South	33	416	1,017	337	693	739	1,917	797	2,714	20
Texas	13	279	664	226	470	467	1,275	480	1,755	24
Mountain	20	295	639	216	400	388	1,053	284	1,337	55
Pacific	103	680	2,286	570	1,136	1,863	4,215	3,540	7,755	31
California	87	580	1,946	488	938	1,565	3,660	3,259	6,019	27
Jewelers' findings, total¹	182	6,058	17,350	5,203	11,001	12,389	29,714	43,816	73,530	2,005
New England	123	4,796	13,550	4,114	8,691	9,630	23,062	30,565	63,027	1,825
Massachusetts	22	1,829	5,595	1,518	3,355	3,887	9,241	19,306	28,547	711
Middle Atlantic	55	1,241	3,753	1,071	2,272	2,712	6,578	13,101	19,879	179
New York	38	578	1,850	479	1,034	1,214	3,782	9,157	12,939	65
Other Divisions	4	19	47	18	38	47	74	150	224	1
Lapidary work, total¹	270	1,699	5,524	1,525	3,068	4,532	10,860	19,409	30,269	148
New England	18	163	388	150	294	281	690	209	799	37
Rhode Island	12	120	285	109	212	210	433	165	508	37
Middle Atlantic	219	1,399	4,755	1,251	2,522	3,917	9,402	18,119	27,521	109
New York	202	1,070	3,912	943	1,856	3,181	8,216	16,619	24,835	50
Other Divisions	33	137	381	124	252	334	868	1,081	1,949	2
Silverware and plated ware, total¹	235	21,506	68,097	18,542	41,723	55,804	121,807	97,324	219,131	5,358
New England	79	12,526	40,892	10,938	25,133	34,707	75,456	72,379	147,835	3,529
Massachusetts	39	3,372	10,069	2,813	6,098	7,963	16,654	12,800	29,514	888
Middle Atlantic	114	7,029	22,109	6,926	12,838	16,890	38,743	19,809	58,552	1,399
New York	84	5,872	18,685	4,909	10,647	14,223	32,813	16,214	49,027	1,087
New Jersey	19	924	2,878	813	1,805	2,205	5,092	2,891	7,893	295
Pennsylvania	11	233	596	204	386	462	1,028	704	1,632	17
North Central	20	1,118	2,926	962	2,151	2,381	4,316	2,903	7,219	250
Illinois	11	423	1,127	339	824	830	1,779	761	2,540	45
South and West	22	833	2,370	716	1,601	1,826	3,292	2,233	5,285	180
California	13	365	1,114	313	627	870	1,607	583	2,190	30

¹ For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.**Jewelry (precious metal):** New England, Maine, 1; New Hampshire, 1; Massachusetts, 82 (3,465); Connecticut, 7; East North Central, Indiana, 9 (599); Michigan, 13 (364); Wisconsin, 3 (6); West North Central, Minnesota, 12 (533); Iowa, 1; Missouri, 12 (262); South Dakota, 3 (60); Nebraska, 2; Kansas, 3 (7); South, Maryland, 2; District of Columbia, 3 (10); West Virginia, 2; North Carolina, 5 (10); Georgia, 2; Kentucky, 2; Alabama, 1; Louisiana, 2; Oklahoma, 1; Idaho, 1; Colorado, 6 (43); New Mexico, 5 (194); Arizona, 3 (6); Utah, 3 (43); Nevada, 1; Pacific, Washington, 11 (67); Oregon, 5 (33).**Jewelers' findings:** New England, New Hampshire, 1; Rhode Island, 99; Connecticut, 1; Middle Atlantic, New Jersey, 16; Pennsylvania, 1; Other Divisions, Minnesota, 1; Louisiana, 1; California, 2.**Lapidary work:** New England, Massachusetts, 5; Connecticut, 1; Middle Atlantic, New Jersey, 8 (241); Pennsylvania, 9 (88); Other Divisions, Ohio, 4 (22); Illinois, 8 (23); Michigan, 3 (11); Missouri, 1; South Dakota, 1; Maryland, 1; New Mexico, 1; Nevada, 1; California, 13 (63).**Silverware and plated ware:** New England, Rhode Island, 9 (1,742); Connecticut, 31 (7,412); North Central, Ohio, 2; Indiana, 2; Wisconsin, 2; Minnesota, 1; Missouri, 2; South and West, Maryland, 4 (309); Virginia, 2; West Virginia, 1; Florida, 1; Nevada, 1.

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

(Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS)

ITEM	Industry				ITEM	Industry			
	Jewelry (precious metal)	Jewelers' findings	Lapidary work	Silverware and plated ware		Jewelry (precious metal)	Jewelers' findings	Lapidary work	Silverware and plated ware
ALL ESTABLISHMENTS					ESTABLISHMENTS REPORTING DETAILED STATISTICS—Continued				
Number of establishments	1,344	182	270	235	Cost of materials, fuel, electricity, and contract work	\$99,173	\$43,816	\$17,944	\$96,612
All employees:					Materials, parts, containers, and supplies	95,905	43,138	17,163	93,867
Number (average for the year)	25,566	6,056	1,699	21,606	Fuels, total	269	172	6	960
Salaries and wages, total	\$76,462	\$17,350	\$5,524	\$68,097	Bituminous coal	39	16		302
Production and related workers:					Anthracite	4			6
Number (average for the year)	20,610	5,203	1,525	18,542	Coke	9	1		3
Man-hours, total—thousands	42,877	11,001	3,068	41,723	Fuel oils	127	47	4	472
Wages, total	\$54,222	\$12,389	\$4,532	\$55,804	Gas	86	104	2	171
Value added by manufacture	\$140,478	\$29,714	\$10,860	\$121,807	Other fuels	4	4		6
ESTABLISHMENTS REPORTING DETAILED STATISTICS					Purchased electric energy	499	279	41	914
Number of establishments	836	182	109	185	Contract and commission work	2,600	227	734	871
All employees:					Value of inventories:				
Number (average for the year)	23,941	6,056	1,244	21,292	Beginning of year, total	\$49,256	\$17,877	\$6,673	\$29,135
Salaries and wages, total	\$72,566	\$17,350	\$4,520	\$67,579	Finished products	n.a.	3,663	4,451	8,600
Production and related workers:					Materials, supplies, and work in process	n.a.	14,214	2,222	20,635
Number (average for the year)	19,013	5,203	1,074	18,336	End of year, total	47,014	15,149	6,345	34,628
Man-hours, total—thousands	39,684	11,001	2,174	41,310	Finished products	n.a.	3,042	4,195	11,617
Wages, total	\$50,465	\$12,389	\$3,562	\$55,333	Materials, supplies, and work in process	n.a.	12,107	2,150	23,011
Value added by manufacture	\$132,792	\$29,714	\$8,555	\$120,940	Expenditures for plant and equipment:				
Number of employees for pay period ended nearest Oct. 15:					New plant and equipment	\$2,674	\$2,005	\$148	\$5,358
All employees	25,328	6,420	1,370	22,640	Construction and major alteration of fixed plants	887	627	8	1,502
Male	15,108	3,927	920	16,550	Buildings	782	626	1	1,418
Female	10,220	2,493	450	6,090	Other construction	105	1	7	84
Production and related workers	20,250	5,568	1,191	19,515	Machinery and equipment	1,787	1,378	140	3,856
Male	12,577	3,434	829	14,946	Production machinery and equipment	1,428	1,230	106	3,476
Female	7,673	2,124	362	4,569	Other machinery and equipment	359	148	34	380
Force-account construction workers	18	4			Used plant and equipment, and land	719	353	62	248
Administrative, supervisory, sales, and all other	5,060	858	179	3,125	Number of highway-type motor vehicles owned or leased:				
Male	2,515	489	91	1,604	Trucks	43	32	1	57
Female	2,545	369	88	1,521	By manufacturer's rated capacity:				
All employees, number by month:					Under 1½ tons	33	28	1	21
January	25,231	6,402	1,211	20,618	1½ tons	7	4		14
February	24,719	6,482	1,277	20,764	Over 1½ tons and less than 3½ tons	3			16
March	24,476	6,420	1,289	20,810	3½ tons and less than 5 tons				4
April	23,412	5,952	1,263	20,713	5 tons and over				2
May	22,605	5,524	1,205	20,418	By body type:				
June	21,992	5,494	1,172	20,421	Van	2	1		5
July	21,617	5,326	985	20,040	Stake or platform	1	1	1	12
August	22,854	5,795	1,040	21,177	Panel or light delivery	25	20		24
September	23,794	6,108	1,272	21,899	All other trucks	15	10		16
October	25,328	6,420	1,370	22,640	Truck tractors				1
November	25,651	6,426	1,424	22,950	Trailers and semitrailers				1
December	25,224	6,268	1,415	23,101					

n.a.—Not available.

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

(Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A ^d appears in the column where the figure has been omitted and the combined figure is printed in italics)

INDUSTRY AND ITEM	Total, all establishments	Establishments with an average of—									
		1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees	500-999 employees	1,000-2,499 employees	2,500 employees and over
Jewelry (precious metal):											
Number of establishments	1,344	597	269	224	160	55	26	8	3	2	
Number of employees (average for the year)	25,566	1,187	1,799	3,071	4,923	3,919	3,970	2,719	<i>3,973</i>	(^d)	
Value added by manufacture	\$140,478	\$7,333	\$9,279	\$16,857	\$26,396	\$21,514	\$17,526	\$18,535	<i>\$22,538</i>	(^d)	
Jewelers' findings:											
Number of establishments	182	60	29	31	31	15	12	3	1		
Number of employees (average for the year)	6,056	121	201	423	1,025	1,079	1,712	1,495	(^d)		
Value added by manufacture	\$29,714	\$570	\$773	\$2,029	\$5,017	\$5,557	\$8,387	<i>\$7,581</i>	(^d)		
Lapidary work:											
Number of establishments	270	189	48	17	11	3	2				
Number of employees (average for the year)	1,699	342	317	230	295	(^d)	<i>515</i>				
Value added by manufacture	\$10,860	\$2,931	\$2,326	\$1,330	\$1,853	(^d)	<i>\$2,410</i>				
Silverware and plated ware:											
Number of establishments	235	56	34	33	48	27	23	5	4	4	1
Number of employees (average for the year)	21,506	121	225	432	1,448	1,907	3,607	1,941	2,597	<i>9,228</i>	(^d)
Value added by manufacture	\$121,807	\$599	\$1,126	\$2,526	\$7,145	\$9,565	\$17,089	\$10,914	\$18,616	<i>\$54,227</i>	(^d)

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947

[The first column shows the total value of shipments of the specified industry, divided among: (A) products classified in (primary to) the industry, (B) products classified in other industries (secondary to the specified industry), and (C) miscellaneous receipts. The second column shows the value of shipments of the primary products of the specified industry reported by establishments in other industries. The third column shows the total value of shipments of the primary products of the specified industry by all reporting manufacturers]

[Money figures in thousands of dollars]

JEWELRY (PRECIOUS METAL) INDUSTRY	Shipped by—			LAPIDARY WORK INDUSTRY	Shipped by—		
	Jewelry (precious metal) industry	Other industries	All industries		Lapidary work industry	Other industries	All industries
Total shipments by the industry	\$248,185			Total shipments by the industry	\$30,269		
A. Jewelry (precious metal).....	219,668	\$11,785	\$231,453	A. Lapidary work (including work done on materials owned by others).....	29,680	\$458	\$30,138
Jewelry made of platinum metals and karat gold.....	129,818	3,436	133,254	B. Secondary products.....	1,589		
Jewelry made of gold filled, rolled gold plate, palladium filled, rolled palladium plate, and sterling silver.....	73,267	8,272	81,539	C. Miscellaneous receipts.....			
Jewelry (precious metal), not specified by kind of material or type of jewelry.....	16,583	77	16,660				
B. Secondary products.....	19,443			SILVERWARE AND PLATED WARE INDUSTRY			
Costume jewelry and costume novelties (except precious metal).....	7,867				Silverware and plated ware industry	Other industries	All industries
Jewelers' findings and materials.....	3,293			Total shipments by the industry	\$219,131		
Other.....	8,283			A. Silverware and plated ware.....	212,362	\$6,243	\$218,605
C. Miscellaneous receipts.....	9,074			B. Secondary products.....	4,620		
Contract and commission work.....	2,175			C. Miscellaneous receipts.....	2,149		
Repair work.....	2,086			Scrap and salable refuse.....	1,210		
Scrap and salable refuse.....	4,099			Other.....	939		
Nonmanufacturing activities.....	714						
JEWELERS' FINDINGS INDUSTRY				Shipped by—			
				Jewelers' findings industry	Other industries	All industries	
Total shipments by the industry	\$73,530						
A. Jewelers' findings and materials.....	66,349	\$4,911	\$71,260				
B. Secondary products.....	5,946						
C. Miscellaneous receipts.....	1,235						

¹ Combined to avoid disclosing figures for individual companies.

JEWELRY, SILVERWARE, AND PLATED WARE

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TABLE 6.—VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	1947	1939	PRODUCT	1947	1939
	Total value of shipments and interplant transfers (f.o.b. plant)	Total value of production for sale and interplant transfer (f.o.b. plant)		Total value of shipments and interplant transfers (f.o.b. plant)	Total value of production for sale and interplant transfer (f.o.b. plant)
Jewelry (precious metal), total	\$231,453	\$62,159	Lapidary work ⁴	\$30,138	
Jewelry made of platinum metals and karat gold	133,254	44,810	Shipments of finished products made from own materials:		
Rings:			Diamonds	20,590	
Rings, complete	71,101	27,690	Other natural precious and semi-precious stones	783	
Ring mountings, for sale separately	17,396		Synthetic stones	3,132	
Men's jewelry, except watch attachments	3,572		Receipts for work done on materials owned by others:		n.a. ⁷
Women's and children's jewelry, except watch attachments ²	15,343	10,881	Receipts for lapidary work on diamonds	1,403	
Watch attachments (bracelets for watches)	8,245		Receipts for lapidary work on other natural precious and semi-precious stones (including the drilling of pearls)	93	
Religious jewelry ³	1,118		Receipts for lapidary work on synthetic stones	206	
Fraternal, college and school jewelry and emblems, including military insignia (except rings)	8,105	4,500	Lapidary work not specified by type of product or by ownership of the material	3,951	
Other jewelry worn or carried about the person ⁵	1,298	536	Silverware and plated ware	218,605	\$39,710
Jewelry made of platinum metals and karat gold, not specified by type	7,076		Flatware: ⁸		
Jewelry made of gold filled, rolled gold plate, palladium filled, rolled palladium plate, and sterling silver	81,539	16,085	Sterling silver	61,516	9,897
Rings, complete and ring mountings, for sale separately	5,041	1,737	Electrosilver plated:		
Men's jewelry, except watch attachments	8,569		Hotel patterns	9,788	2,411
Women's and children's jewelry, except watch attachments ⁴	27,938	10,109	Commercial patterns	62,779	23,060
Watch attachments (bracelets for watches)	28,552		Other flatware ⁹	15,633	5,351
Religious jewelry ³	3,272		Hollow ware, except electrical appliances:		
Fraternal, college and school jewelry and emblems, including military insignia (except rings)	2,800	2,872	Sterling silver	20,074	5,263
Other jewelry worn or carried about the person ⁵	3,046	1,367	Electrosilver plated:		
Jewelry made of gold filled, etc., not specified by type	2,321		Hotel patterns	3,743	1,021
Jewelry (precious metal) not specified by kind of material or type of jewelry	16,660	1,258	Commercial patterns	13,619	4,696
Jewelers' findings and materials	71,260	22,489	Other hollow ware ¹⁰	6,056	2,511
Jewelers' findings, such as joints, pins, clasps, spring rings, ring blanks and other unassembled parts	22,633		Toiletware, ecclesiastical ware, novelties, trophies, baby goods, and other plated ware:		
Machine chain	10,430	n.a.	Sterling silver	4,377	1,949
Stock shop products, such as flat stock, wire and tubing	37,829		Electrosilver plated	3,851	1,639
Jewelers' findings, not specified by kind	368		Other toiletware, ecclesiastical ware, novelties, trophies, and other plated ware	6,569	1,993
			Silverware and plated ware not specified by kind and interplant transfers of parts and components ¹¹	10,600	

n.a.—Not available.

¹ Includes collar and cuff buttons, studs, watch chains, money clips, identification bracelets, scarf pins, tie and collar holders, etc.

² Includes necklaces, bracelets, brooches, pins, clips, earrings, lockets, etc.

³ Includes rosaries, chaplets, religious medals, crosses, etc.

⁴ Data on fraternal jewelry rings are included with rings for 1947. For 1939, fraternal rings were included in the item "Fraternal, college, and school jewelry."

⁵ Includes cigar and cigarette cases and lighters, compacts, vanity cases, etc.

⁶ Includes value of shipments of finished products made from own materials and receipts for work done on materials owned by others.

⁷ The 1939 report form did not collect detailed commodity statistics.

⁸ Flatware includes all knives, forks, spoons, etc., made wholly of metal. Knives, forks, spoons, etc., not made wholly of metal, such as those with plastic handles, are included as table cutlery in the cutlery industry. In 1947, table cutlery amounted to \$14.6 million. Since 1939 classifications for cutlery and flatware were not based on type of handle, 1939 data are not strictly comparable. The \$5.3 million represents the value of other flatware reported by the silverware industry in 1939. However, the total for table and kitchen cutlery and other flatware amounted to \$33.7 million in 1947 as compared to \$10.3 million in 1939.

⁹ Includes other plated flatware, stainless steel and other metal flatware, not plated.

¹⁰ Includes other plated hollow ware, stainless steel, and other metal hollow ware not plated.

¹¹ Includes knife blades sold separately.

MUSICAL INSTRUMENTS AND PARTS; TOYS; SPORTING AND ATHLETIC GOODS

This report shows 1947 Census of Manufactures statistics for establishments engaged primarily in the production of musical instruments and parts; games and toys; dolls; children's vehicles; and sporting and athletic goods. These establishments have been classified in eight industries, described separately below:

Pianos (*Standard Industrial Classification No. 3931.*)—This industry comprises establishments primarily engaged in manufacturing complete pianos, all types. The definition of this industry corresponds to that used for all previous censuses since 1904.

Organs (*Standard Industrial Classification No. 3932.*)—This industry comprises establishments primarily engaged in manufacturing complete pipe organs, reed organs, electronic organs, and organs with electrical amplification. General statistics (table 1) for years prior to 1947 are combined with data for the Piano and Organ Parts Industry. A valid comparison with 1947 cannot be made separately for each of these two industries owing to differences in methods of reporting as compared with previous years. In 1947 separate reports were received from plants which produced organ parts and shipped these components to another plant of the same firm for assembly; these reports have been assigned to the Piano and Organ Parts Industry. In 1939, however, a consolidated report covering both the organ parts plants and the organ assembly plant, was received and assigned to the Organ Industry. As a result of the combination of these industries in table 1, shipments of the organ parts are duplicated in the cost of materials and value of shipments of manufacturers of the assembled organs. The combined "cost of materials, etc." and "value of products shipped" would therefore be misleading and are omitted. In all other tables, separate statistics for the Organ Industry are published.

Piano and Organ Parts (*Standard Industrial Classification No. 3933.*)—This industry comprises establishments primarily engaged in manufacturing piano and organ parts and materials. These products include piano strings, plates, keys, actions, keyboards, back frames, pedal attachments, hammers, sounding boards, organ reeds, pipes, stops, knobs, and music rolls. Establishments primarily engaged in manufacturing complete pianos are classified in Industry 3931, and complete organs in Industry 3932. Statistics for previous years have been combined with those for the Organ Industry in table 1 as described above. As in the case for the general statistics for this industry, the total value of 1947 shipments of organ parts cannot validly be compared with 1939 production. The 1939 total excludes significant quantities of organ parts produced at branch plants for transfer and assembly at a central plant of the same firm.

Musical Instruments, Not Elsewhere Classified (*Standard Industrial Classification No. 3939.*)—This industry comprises establishments primarily engaged in manufacturing all kinds of musical instruments, parts, and materials, except pianos (Industry 3931), organs (Industry 3932), and piano and organ parts and materials (Industry 3933). Included in this industry are products such as saxophones, trumpets, guitars, violins, drums, etc.

Games and Toys, Not Elsewhere Classified (*Full Standard Industrial Classification title and number: Games and Toys (except dolls and children's vehicles), 3941.*)—This industry comprises establishments primarily engaged in manu-

facturing indoor games and game sets for adults and children, and mechanical and nonmechanical toys. Important products of this industry include games such as chess, checkers, dominoes, puzzles, and other indoor games; and toys such as toy furniture, doll carriages and carts, construction sets, mechanical trains, toy guns and air rifles, and other mechanical games and toys. Establishments primarily engaged in manufacturing dolls are classified in Industry 3942, children's outdoor wheel goods and vehicles in Industry 3943, and sporting and athletic goods for children and adults in Industry 3949.

Establishments primarily engaged in the manufacture of stuffed toy animals were classified in this industry for 1939 and earlier census years. Stuffed toy animals are now classified as a part of the dolls industry, since a majority of these products are dolls or are used as dolls. The 1939 reports were retabulated in terms of the 1947 definition of this industry. Data for years prior to 1939 are not available because of the redefinition of the industry.

Dolls (*Standard Industrial Classification No. 3942.*)—This industry comprises establishments primarily engaged in manufacturing dolls, doll parts, and doll clothing. Establishments primarily engaged in manufacturing stuffed toy animals are also classified in this industry.

In 1939, stuffed toy animals were classified in the Games and Toys Industry. The 1939 reports have been retabulated in terms of this redefinition of the industry. However, the 1947 industry also includes the production of rubber dolls, which were classified in the Rubber Products, Not Elsewhere Classified Industry in 1939. The reporting form in 1939 was such that it was not possible to reclassify the reports in terms of the 1947 definition of the dolls industry. Therefore, the general statistics for 1939 for this industry are not strictly comparable with the 1947 data. The degree of noncomparability is believed to be about 10 percent. Data for years earlier than 1939 are not available.

A significant part (15 percent) of the shipments of the establishments in the industry were products other than dolls.

Children's Vehicles (*Standard Industrial Classification No. 3943.*)—This industry comprises establishments primarily engaged in manufacturing baby carriages, strollers, and go-carts; children's velocipedes and tricycles, coaster wagons, play cars, sleds, and other children's outdoor wheel goods and vehicles. Beginning with the 1899 census and continuing through 1937, this industry was designated as Carriages and Sleds, Children's. In 1939 it was changed to Children's Vehicles.

A significant part (19 percent) of the shipments of establishments in this industry were products other than children's vehicles, consisting principally of infants' and children's wood furniture and games and toys. Of the \$86.5 million of children's vehicles shipped in 1947, 21 percent were shipped by establishments classified in other industries.

Sporting and Athletic Goods (*Full Standard Industrial Classification title and number: Sporting and Athletic Goods, Not Elsewhere Classified, 3949.*)—This industry comprises establishments primarily engaged in manufacturing sporting and athletic goods, not elsewhere classified, such as fishing tackle; golf and tennis goods; baseball, football, basketball, and boxing equipment; roller skates and ice skates; gymnasium and playground equipment; billiard and pool tables; and bowling alleys and equipment. Establishments primarily engaged in manufacturing athletic apparel are classified in Major Group 23, small arms ammunition in Industry 1961, and firearms in Industry 1951.

MUSICAL INSTRUMENTS AND PARTS; TOYS; SPORTING AND ATHLETIC GOODS 799

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Pianos:								
1947	27	6,978	\$20,573	6,170	\$16,948	\$31,097	\$24,835	\$35,086
1939	35	5,987	7,013	5,311	6,123	10,369	11,124	20,493
1937	38	6,259	8,183	5,698	7,062	11,936	9,767	21,703
1935	36	4,698	4,914	4,110	4,069	7,082	2,606	12,688
1933	36	2,975	2,838	2,700	2,382	4,415	2,828	7,243
1931	50	n.a.	n.a.	4,737	5,157	9,401	5,892	15,293
1929	81	11,092	17,359	9,970	14,001	23,635	14,866	42,561
1927	124	15,325	28,375	16,582	23,891	41,592	33,869	75,491
1925	142	21,886	32,670	20,079	28,096	51,883	49,296	101,181
1923	160	24,069	35,378	22,208	30,679	56,980	54,179	111,159
1921	185	17,845	23,542	15,836	18,887	34,068	28,652	73,640
1919	191	25,727	31,872	22,957	25,474	52,723	54,367	107,498
1914	255	26,743	20,415	23,877	16,705	37,684	29,091	62,773
1909	294	28,289	20,193	25,497	15,737	33,750	32,819	66,569
1904	249	23,070	15,017	21,002	12,170	27,334	19,588	46,922
Organs and Piano and organ parts:								
1947	64	4,546	11,764	4,059	9,832	18,137		
1939	57	2,752	3,501	2,304	2,485	4,965		
1937	66	3,215	3,929	2,664	2,951	6,027		
1935	62	2,184	2,364	1,831	1,640	3,069		
1933	62	1,537	1,347	1,342	1,037	2,388		
1931	92	n.a.	n.a.	2,673	2,941	6,166		
1929	129	6,309	9,781	5,479	7,201	15,867		
1927	148	9,224	14,116	8,169	10,968	23,533		
1925	161	12,386	17,133	11,078	13,741	30,076		
1923	188	12,620	16,796	11,527	13,905	28,620		
1921	145	8,724	11,390	7,915	9,313	16,826		
1919	181	14,077	15,012	12,950	12,446	23,853		
1914	223	14,759	9,421	13,679	7,648	14,011		
1909	213	13,296	8,121	12,523	7,025	12,275		
1904	195	12,733	7,238	12,079	6,357	10,771		
Musical instruments, n. e. c.:								
1947	169	5,365	14,471	4,585	11,418	22,122	9,244	31,366
1939	101	4,104	5,710	3,191	3,917	8,108	3,444	11,532
1937	83	4,096	5,486	3,409	4,075	8,142	3,806	11,948
1935	94	3,519	4,225	2,864	3,010	6,295	2,765	9,960
1933	72	2,504	2,237	2,084	1,678	3,490	1,624	5,114
1931	88	n.a.	n.a.	2,593	3,053	5,876	2,238	8,114
1929	106	3,931	6,332	3,176	4,581	10,449	3,825	14,274
1927	99	4,718	7,291	4,018	5,737	13,251	4,641	17,892
1925	100	5,171	7,853	4,556	6,520	14,754	5,575	26,329
1923	106	4,721	7,021	4,103	5,842	11,270	4,349	15,619
1921	116	3,945	5,611	3,424	4,520	9,029	3,325	12,354
1919	240	4,734	5,017	4,113	3,985	8,061	4,445	12,506
1914	241	2,176	1,546	1,831	1,161	2,602	1,023	3,625
1909	187	2,082	1,335	1,822	992	2,338	890	3,228
1904	181	2,364	1,414	2,139	1,162	2,352	1,139	3,482
1899	229	2,563	1,374	2,405	1,232	2,190	1,203	3,395
Games and toys, n. e. c.:								
1947	837	27,140	60,554	24,174	47,493	105,414	76,525	181,939
1939	294	n.a.	n.a.	13,778	11,098	27,364	21,744	49,198
Dolls:								
1947	377	9,797	21,847	8,886	17,739	37,577	32,269	69,786
1939	136	n.a.	n.a.	4,890	4,405	8,874	9,608	18,482
Children's vehicles:								
1947	120	8,783	24,735	7,773	19,423	44,204	41,627	85,831
1939	44	4,952	6,172	4,319	4,713	9,177	9,949	19,117
1937	54	5,731	6,537	5,218	5,415	9,695	9,960	19,655
1935	55	5,456	5,411	4,918	4,360	8,079	7,432	15,511
1933	46	4,280	3,290	3,971	2,877	5,314	5,671	10,985
1931	59	n.a.	n.a.	4,159	4,479	9,675	7,091	16,769
1929	79	7,894	10,274	7,102	8,313	15,303	13,515	28,818
1927	89	7,788	9,571	7,030	7,814	14,773	13,965	29,668
1925	86	7,706	9,659	6,926	7,923	16,521	13,553	30,174
1923	100	9,174	10,557	8,324	8,856	19,237	15,866	34,173
1921	89	6,156	6,996	5,460	5,578	12,200	9,517	21,717
1919	103	7,443	7,973	6,688	6,229	12,807	11,790	24,567
1914	92	6,434	3,927	5,900	3,151	6,070	5,682	11,752
1909	84	5,719	2,707	5,309	2,217	4,676	4,129	8,905
1904	78	4,327	2,124	4,003	1,753	3,531	2,849	6,371
1899	77	2,898	1,249	2,726	1,060	2,294	1,996	4,290
Sporting and athletic goods:								
1947	864	29,773	66,697	26,395	53,755	167,532	94,930	262,462
1939	350	16,633	19,813	13,816	14,221	38,064	26,690	64,754
1937	247	n.a.	n.a.	12,178	12,542	27,519	24,555	52,074
1935	213	11,667	12,421	9,979	9,308	20,229	17,780	38,009
1933	193	9,859	8,604	8,622	6,751	15,306	11,694	26,290
1931	249	n.a.	n.a.	10,768	11,832	31,525	21,494	53,619
1929	282	14,227	19,958	12,183	14,998	39,389	27,721	67,110
1927	222	12,630	17,078	10,873	13,145	30,267	21,788	52,055
1925	214	11,120	15,034	9,781	11,616	28,589	19,655	48,244
1923	202	12,185	15,106	10,559	11,841	27,312	20,721	48,033

See footnotes at end of table.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS—Continued

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Sporting and athletic goods—Continued								
1921	188	9,227	\$11,017	7,988	\$8,457	\$20,400	\$18,779	\$39,179
1919	237	9,631	10,055	8,513	8,178	21,503	18,070	39,573
1914	216	7,948	4,837	7,055	3,755	8,689	9,440	18,129
1909	234	7,566	4,145	7,049	3,176	7,907	8,933	16,930
1904	200	5,533	2,612	5,056	2,142	5,355	3,900	9,255
1899	217	2,934	1,360	2,678	1,088	2,746	2,531	5,277

NOTE: Statistics for the "Organs" and the "Piano and organ parts and materials" industries have been combined in table 1. Data for years prior to 1947 are not shown separately for each of these two industries due to lack of comparability (see text for the "Organs" industry).

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture. For "Pianos," "Organs," and "Piano and organ parts," see GENERAL EXPLANATIONS—Method of calculating value added by manufacture for selected industries in 1947.

² Figures for years prior to 1935 do not include cost of contract work.

³ For 1947 and 1929, value of products shipped; for all other years, value of products made. See GENERAL EXPLANATIONS—Value of products shipped.

⁴ For 1899, "Pianos," "Organs," and "Piano and organ parts" constituted a single industry. Separate figures for these industries are, therefore, not available for 1899.

⁵ Omitted because of duplication between cost of materials and value of products shipped. See text on industry.

⁶ Value of products shipped and cost of materials, etc. are omitted for this industry because each of these measures contains extensive duplication. The duplication arises because the products of some establishments are used as materials by other establishments classified in the same industry. (See text on industry and also GENERAL EXPLANATIONS—Duplication in cost of materials and value of products.)

⁷ The returns for 1939 have been retabulated to provide figures comparable with those for 1947. No comparable figures are available for years prior to 1939.

⁸ The returns for 1939 for the "Dolls" industry were retabulated to account for the reclassification of stuffed toy animals to the "Dolls" industry. Rubber dolls were also reclassified to this industry from "Rubber products, n. e. c.," but the 1939 returns for that industry did not provide sufficient information for retabulation. (See text.)

⁹ The figures for 1937, 1939, and 1947 are not entirely comparable with those for earlier years because they include data for establishments primarily engaged in the manufacture of playground equipment. Value added for 1937, excluding data for these establishments, amounted to \$26,312,000.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947
[Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Pianos, total¹	27	6,978	\$20,573	6,170	13,204	\$16,948	\$31,097	\$24,835	\$55,086	\$1,138
Northeast	14	2,584	7,913	2,277	4,801	6,510	13,779	9,568	22,549	325
New York	10	1,977	6,069	1,721	3,552	4,823	10,251	5,707	15,197	319
East North Central	13	4,394	12,660	3,893	8,403	10,438	17,318	15,267	32,537	813
Illinois	7	1,980	5,930	1,733	3,668	4,806	8,355	7,283	15,613	379
Organs, total¹	27	1,337	3,362	1,131	2,428	2,647	5,190	7,182	12,372	241
Northeast	10	412	946	355	744	736	1,429	877	2,306	45
Other Divisions	17	925	2,416	776	1,684	1,911	3,761	6,305	10,066	196
Piano and organ parts, total¹	37	3,209	8,402	2,928	6,223	7,185	12,947	6,918	19,865	565
Northeast	16	1,299	3,392	1,145	2,312	2,705	4,327	2,556	6,893	293
Other Divisions	21	1,910	5,010	1,783	3,911	4,480	8,620	4,362	12,972	272
Illinois	9	1,166	3,180	1,083	2,500	2,855	5,980	2,473	8,453	137
Musical instruments, n. e. c., total¹	169	5,365	14,471	4,585	9,414	11,418	22,122	9,244	31,366	501
New England	13	270	733	237	509	579	1,077	396	1,473	24
Massachusetts	8	222	612	195	426	402	886	289	1,185	19
Middle Atlantic	61	1,269	3,298	1,092	2,224	2,610	6,008	2,979	8,287	174
New York	43	547	1,575	454	989	1,173	2,678	1,221	3,899	21
North Central	80	3,495	9,595	2,953	6,053	7,487	13,771	5,765	19,536	262
Indiana	19	1,515	4,319	1,209	2,410	3,249	6,318	1,452	7,770	53
South and West	15	331	845	303	628	742	1,266	804	2,070	41
Games and toys, n. e. c., total¹	837	27,140	60,554	24,174	47,093	47,403	105,414	76,825	181,939	6,811
New England	95	4,904	11,119	4,183	8,220	7,865	16,663	10,983	27,051	742
Middle Atlantic	362	12,180	27,932	10,996	21,883	22,422	62,216	36,955	89,171	2,853
New York	228	4,620	10,022	4,107	7,725	7,500	20,168	10,218	39,376	1,404
New Jersey	65	3,900	10,066	3,492	7,595	8,342	18,756	8,525	27,281	893
Pennsylvania	69	3,660	7,844	3,397	6,563	6,580	13,302	9,212	22,614	556
East North Central	195	6,728	15,079	6,036	11,382	12,082	26,234	19,762	45,996	2,223
Ohio	48	1,608	3,180	1,440	2,710	2,639	6,161	4,372	10,533	933
Michigan	37	1,698	4,213	1,572	2,861	3,615	6,833	5,345	11,178	479
West North Central	51	842	1,530	731	1,405	942	2,589	2,434	5,023	247
South	50	1,549	2,952	1,433	2,685	2,560	4,089	3,514	7,603	610
West	84	937	1,942	795	1,518	1,532	3,623	2,872	6,495	236
California	75	798	1,668	673	1,287	1,322	3,273	2,641	5,914	217
Dolls, total¹	377	9,797	21,847	8,886	17,386	17,739	37,577	32,209	69,786	1,107
New England	20	463	881	434	724	453	1,017	712	1,729	19
Massachusetts	13	320	334	301	464	236	562	411	963	10
Middle Atlantic	300	6,984	16,309	6,348	12,789	13,365	29,101	27,063	56,154	726
New York	266	5,659	13,675	5,170	10,271	11,120	24,073	24,227	49,200	601
New Jersey	19	966	2,149	854	1,897	1,846	3,250	1,931	5,181	47
Pennsylvania	15	349	485	324	621	399	878	895	1,773	18
Other Divisions	57	2,350	4,957	2,104	3,873	3,921	7,459	4,444	11,903	362
Children's vehicles, total¹	120	8,783	24,735	7,773	15,972	19,423	44,204	41,627	85,831	1,560
New England	14	2,343	7,409	2,082	4,375	5,786	12,351	12,218	24,569	341
Middle Atlantic	38	1,350	3,357	1,162	2,318	2,613	5,099	5,849	11,548	226
New York	25	1,002	2,661	845	1,673	2,022	4,833	4,855	9,688	178
New Jersey	5	112	212	106	207	185	421	295	456	11
Pennsylvania	8	236	484	211	438	406	705	699	1,404	37
North Central	56	4,893	13,450	4,377	9,003	10,650	25,374	22,690	48,064	922
Minnesota	6	254	556	227	464	408	853	605	1,458	56
South and West	12	197	510	152	276	374	780	870	1,650	71

See footnotes at end of table.

MUSICAL INSTRUMENTS AND PARTS; TOYS; SPORTING AND ATHLETIC GOODS 801

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947—Continued

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Sporting and athletic goods, total ¹	864	29,773	\$66,697	26,395	52,019	\$53,785	\$107,532	\$94,930	\$202,462	\$7,351
New England.....	81	6,019	13,901	5,441	11,283	11,799	21,964	16,813	38,777	1,687
Maine.....	15	327	561	207	633	464	794	636	1,430	26
Vermont.....	6	180	389	165	381	364	721	551	1,272	12
Connecticut.....	21	1,666	4,267	1,470	3,192	3,484	6,678	3,544	10,222	145
Middle Atlantic.....	180	6,001	12,746	5,390	10,168	10,239	18,994	17,577	56,571	1,723
New York.....	117	3,951	8,427	3,529	6,670	6,662	11,873	11,407	23,280	823
New Jersey.....	15	306	679	277	528	472	846	935	1,781	39
Pennsylvania.....	48	1,744	3,740	1,584	2,968	3,105	6,275	5,235	11,510	661
East North Central.....	274	11,374	27,843	9,874	19,336	21,954	46,046	42,654	88,100	2,372
Ohio.....	56	3,782	8,662	3,172	5,833	6,740	13,326	13,235	26,561	555
Indiana.....	25	553	1,541	465	996	1,206	1,638	2,221	3,850	57
Illinois.....	73	2,524	7,034	2,250	4,511	5,687	12,130	12,637	24,157	496
Michigan.....	78	3,619	9,387	3,162	6,574	7,363	16,910	13,548	36,458	782
Wisconsin.....	42	896	1,219	825	1,422	956	2,652	1,013	3,065	82
West North Central.....	76	1,608	3,941	1,698	3,449	3,015	6,732	6,339	13,068	486
Minnesota.....	28	454	1,003	393	843	834	1,664	1,240	2,504	138
Missouri.....	28	1,044	2,265	910	1,826	1,609	3,755	4,236	7,991	211
South Atlantic.....	25	967	1,692	830	1,534	1,272	2,389	2,454	4,843	680
Florida.....	13	214	399	179	351	287	465	206	671	18
East South Central.....	12	902	1,696	810	1,668	1,342	3,333	2,889	6,222	92
West South Central.....	49	700	1,135	625	1,262	972	1,919	1,769	3,679	116
Arkansas.....	6	287	476	244	502	392	920	454	1,374	76
Texas.....	31	324	544	302	609	480	826	951	1,777	12
Mountain.....	24	837	1,523	784	1,746	1,344	2,392	1,679	4,671	64
Pacific.....	143	1,065	2,220	943	1,675	1,848	3,763	3,368	7,191	179
California.....	95	739	1,625	652	1,152	1,330	2,614	2,546	5,160	142

¹ For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.

Pianos: *Northeast*, Massachusetts, 1; New Jersey, 1; Pennsylvania, 2; *East North Central*, Ohio, 1; Indiana, 3 (578); Michigan, 2.

Organs: *Northeast*, Vermont, 2; Massachusetts, 2; Connecticut, 1; New York, 3 (27); Pennsylvania, 2; *Other Divisions*, Ohio, 3 (62); Indiana, 1; Illinois, 5 (272); Michigan, 1; Wisconsin, 2; Missouri, 1; Kansas, 2; Maryland, 1; District of Columbia, 1.

Piano and Organ Parts: *Northeast*, Massachusetts, 4; Connecticut, 2; New York, 7 (451); New Jersey, 1; Pennsylvania, 2; *Other Divisions*, Ohio, 3 (200); Indiana, 1; Michigan, 1; Wisconsin, 3 (178); Maryland, 1; Virginia, 1; Washington, 1; California, 1.

Musical instruments, n. e. c.: *New England*, New Hampshire, 1; Rhode Island, 1; Connecticut, 3; *Middle Atlantic*, New Jersey, 12 (433); Pennsylvania, 6; *North Central*, Ohio, 4 (437); Illinois, 37 (876); Michigan, 13 (391); Wisconsin, 2; Minnesota, 1; Missouri, 3 (20); Nebraska, 1; *South and West*, Maryland, 2; Texas, 1; Colorado, 2; California, 10 (305).

Games and toys, n. e. c.: *New England*, Maine, 6; New Hampshire, 6; Vermont, 4; Massachusetts, 48; Rhode Island, 11; Connecticut, 20; *East North Central*, Indiana, 13 (609); Illinois, 73 (2,212); Wisconsin, 24 (601); *West North Central*, Minnesota, 15 (181); Iowa, 5 (175); Missouri, 22 (423); South Dakota, 1; Nebraska, 4 (37); Kansas, 4; *South Atlantic*, Delaware, 1; Maryland, 6 (262); Virginia, 1; West Virginia, 9 (966); North Carolina, 2; Georgia, 5 (15); Florida, 5 (47); Kentucky, 1; Tennessee, 4 (38); Alabama, 4 (163); Mississippi, 1; Louisiana, 1; Oklahoma, 1; Texas, 9 (48); *West*, Idaho, 1; Colorado, 3; Utah, 1; Nevada, 1; Washington, 1; Oregon, 2.

Dolls: *New England*, New Hampshire, 1; Vermont, 1; Connecticut, 5; *Other Divisions*, Ohio, 7 (1,520); Illinois, 6 (47); Michigan, 1; Wisconsin, 2; Minnesota, 1; Missouri, 3 (14); Nebraska, 1; Maryland, 1; District of Columbia, 1; Georgia, 6 (325); Florida, 1; Kentucky, 1; Tennessee, 2; Texas, 1; Colorado, 2; Washington, 1; Oregon, 1; California, 19 (362).

Children's vehicles: *New England*, Massachusetts, 11; Connecticut, 3; *North Central*, Ohio, 9 (1,271); Indiana, 6 (1,187); Illinois, 5 (464); Michigan, 18 (708); Wisconsin, 4 (520); Iowa, 2; Missouri, 3 (425); Nebraska, 1; Kansas, 2; *South and West*, Virginia, 1; Kentucky, 1; California, 10.

Sporting and athletic goods: *New England*, New Hampshire, 2; Massachusetts, 33; Rhode Island, 4; *West North Central*, Iowa, 10 (333); Nebraska, 2; Kansas, 8 (91); *South Atlantic*, Maryland, 3 (73); Virginia, 3 (321); West Virginia, 1; South Carolina, 3 (251); Georgia, 2; *East South Central*, Kentucky, 4; Tennessee, 6 (485); Mississippi, 2; *West North Central*, Louisiana, 6 (52); Oklahoma, 8 (37); *Mountain*, Montana, 4 (21); Idaho, 2; Wyoming, 1; Colorado, 16 (702); Utah, 1; *Pacific*, Washington, 31 (213); Oregon, 17 (113).

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS]

ITEM	Industry							
	Pianos	Organs	Piano and organ parts	Musical instruments, n. e. c.	Games and toys, n. e. c.	Dolls	Children's vehicles	Sporting and athletic goods
ALL ESTABLISHMENTS								
Number of establishments	27	27	37	169	837	377	120	864
All employees:								
Number (average for the year)	6,978	1,337	3,209	5,365	27,140	9,797	8,783	29,778
Salaries and wages, total	\$20,573	\$3,362	\$8,402	\$13,471	\$50,554	\$21,847	\$24,785	\$66,697
Production and related workers:								
Number (average for the year)	6,170	1,131	2,928	4,585	24,174	8,886	7,773	26,395
Man-hours, total	13,204	2,428	6,223	9,414	47,093	17,386	15,972	52,019
Wages, total	\$16,948	\$2,647	\$7,185	\$11,418	\$47,403	\$17,739	\$19,423	\$53,785
Value added by manufacture	\$31,097	\$5,190	\$12,947	\$22,122	\$105,414	\$37,577	\$44,204	\$107,532
ESTABLISHMENTS REPORTING DETAILED STATISTICS								
Number of establishments	27	27	37	90	419	236	94	422
All employees:								
Number (average for the year)	6,978	1,337	3,209	4,998	25,245	9,105	8,678	27,655
Salaries and wages, total	\$20,573	\$3,362	\$8,402	\$13,712	\$57,734	\$20,925	\$24,563	\$63,377
Production and related workers:								
Number (average for the year)	6,170	1,131	2,928	4,231	22,377	8,204	7,671	24,324
Man-hours, total	13,204	2,428	6,223	8,724	43,589	16,060	15,769	47,980
Wages, total	\$16,948	\$2,647	\$7,185	\$10,708	\$44,691	\$16,845	\$19,255	\$50,692
Value added by manufacture	\$31,097	\$5,190	\$12,947	\$21,115	\$100,933	\$35,747	\$44,016	\$102,496
Number of employees for pay period ended nearest Oct. 15:								
All employees:								
Male	7,250	1,472	3,320	5,200	30,606	12,234	9,935	27,236
Female	6,395	1,133	2,345	3,715	13,861	4,748	7,201	15,138
Production and related workers:								
Male	8,855	339	975	1,485	16,745	7,486	2,644	12,098
Female	6,405	1,260	3,051	4,368	27,600	11,291	8,864	23,793
Force-account construction workers:								
Male	5,811	1,005	2,177	3,275	12,176	4,256	6,677	13,230
Female	594	265	874	1,093	15,424	7,035	2,187	10,563
Administrative, supervisory, sales, and all other:								
Male	845	212	269	832	2,694	943	1,071	3,429
Female	584	128	168	440	1,673	492	614	1,894
All employees, number by month:								
January	6,583	1,229	3,172	4,410	22,404	6,971	8,506	27,888
February	6,743	1,224	3,198	5,095	22,807	7,354	8,339	28,576
March	6,831	1,247	3,212	5,180	23,676	7,604	8,187	28,952
April	6,847	1,251	3,305	4,982	23,598	7,710	8,211	28,969
May	6,853	1,247	3,300	4,996	22,865	7,922	8,204	28,689
June	6,932	1,273	3,298	4,868	22,712	8,246	7,816	27,949
July	6,823	1,322	3,098	4,797	23,810	7,670	7,718	25,925
August	6,901	1,363	2,556	4,972	25,382	9,510	8,640	26,514
September	7,086	1,414	3,232	5,004	28,230	10,315	9,168	26,479
October	7,250	1,472	3,320	5,200	30,606	12,234	9,931	27,236
November	7,417	1,477	3,405	5,251	30,563	12,322	10,137	27,345
December	7,458	1,503	3,402	5,230	26,162	11,220	9,265	27,077
Cost of materials, fuel, electricity, and contract work	\$24,835	\$7,182	\$6,918	\$8,412	\$72,346	\$30,812	\$41,422	\$89,835
Materials, parts, containers, and supplies	24,262	7,099	6,649	7,881	69,563	29,105	39,794	85,691
Fuels, total	571	47	163	143	572	174	336	790
Bituminous coal	301	35	85	88	189	75	105	328
Anthracite	9			4	46	2	3	32
Coke	5		49		40		1	10
Fuel oils	55	9	18	19	156	35	139	289
Gas	1	3	7	32	117	55	78	103
Other fuels	4		4		24	6	11	28
Purchased electric energy	202	32	103	186	753	341	392	990
Contract and commission work		4	3	202	1,458	1,192	900	2,364
Value of inventories:								
Beginning of year, total	\$11,664	\$1,477	\$2,802	\$5,258	\$22,741	\$5,646	\$9,310	\$38,368
Finished products	280	205	304	731	n.a.	n.a.	2,195	n.a.
Materials, supplies, and work in process	11,384	1,272	2,498	4,527	n.a.	n.a.	7,115	n.a.
End of year, total	14,510	2,012	3,430	5,583	27,106	6,471	9,036	51,868
Finished products	411	270	415	979	n.a.	n.a.	1,964	n.a.
Materials, supplies, and work in process	14,099	1,742	3,015	4,604	n.a.	n.a.	7,072	n.a.
Expenditures for plant and equipment:								
New plant and equipment	\$1,138	\$241	\$565	\$501	\$6,811	\$1,107	\$1,560	\$7,351
Construction and major alteration of fixed plants	714	178	191	58	1,879	159	300	3,588
Buildings	595	119	186	47	1,694	96	280	3,223
Other construction	119	59	5	11	185	63	20	365
Machinery and equipment	424	63	374	443	4,932	948	1,260	3,763
Production machinery and equipment	377	55	290	390	4,555	848	1,152	3,140
Other machinery and equipment	47	8	84	53	377	100	108	623
Used plant and equipment, and land	325	4	22	40	315	63	1,145	666
Number of highway-type motor vehicles owned or leased:								
Trucks	21	10	17	17	164	9	66	189
By manufacturer's rated capacity:								
Under 1½ tons	3	2	8	15	68	6	19	92
1½ tons	8	4	4	2	59	2	29	59
Over 1½ tons and less than 3½ tons	6	4	1		36	1	14	22
3½ tons and less than 5 tons	4		1		1		4	11
5 tons and over			3					5
By body type:								
Van	8	2	4	1	13		11	10
Stake or platform	7	4	7	8	68	3	34	74
Panel or light delivery	4	2	4	4	59	6	18	73
All other trucks	2	2	2	4	24		3	32
Truck tractors	3	1			3		10	4
Trailers and semitrailers	3				4		13	4

n.a.—Not available.

MUSICAL INSTRUMENTS AND PARTS; TOYS; SPORTING AND ATHLETIC GOODS 803

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A ^d appears in the column where the figure has been omitted and the combined figure is printed in italics]

INDUSTRY AND ITEM	Total, all establishments	Establishments with an average of—									
		1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees	500-999 employees	1,000-2,499 employees	2,500 employees and over
Pianos:											
Number of establishments.....	27				7	5	5	5	4	1	
Number of employees (average for the year).....	6,973				193	323	819	1,725	3,908	(d)	
Value added by manufacture.....	\$31,097				\$1,153	\$1,754	\$3,485	\$9,234	\$16,421	(d)	
Organs:											
Number of establishments.....	27	7	4	3	5	3	4	1			
Number of employees (average for the year).....	1,337	14	31	41	143	223	680	(d)			
Value added by manufacture.....	\$5,180	\$42	\$89	\$122	\$431	\$879	\$3,627	(d)			
Piano and organ parts:											
Number of establishments.....	37	5	6	5	9	3	5	2	2		
Number of employees (average for the year).....	3,209	11	44	69	233	212	724	1,916	(d)		
Value added by manufacture.....	\$12,947	\$64	\$160	\$344	\$830	\$872	\$4,073	\$6,546	(d)		
Musical instruments, n. e. c.:											
Number of establishments.....	169	68	28	24	31	16	9	2	1		
Number of employees (average for the year).....	5,365	133	181	343	920	1,125	1,310	(d)	1,343		
Value added by manufacture.....	\$22,122	\$479	\$673	\$1,494	\$3,681	\$5,375	\$5,350	(d)	\$6,070		
Games and toys, n. e. c.:											
Number of establishments.....	837	327	143	136	121	61	34	8	5	2	
Number of employees (average for the year).....	27,140	699	1,034	1,938	3,721	4,369	5,154	3,254	6,971	(d)	
Value added by manufacture.....	\$105,414	\$2,924	\$3,226	\$6,130	\$13,515	\$16,631	\$20,740	\$15,018	\$27,230	(d)	
Dolls:											
Number of establishments.....	377	130	90	56	70	19	7	3		2	
Number of employees (average for the year).....	9,797	320	612	813	2,050	1,270	1,118	3,614		(d)	
Value added by manufacture.....	\$37,577	\$1,156	\$2,029	\$2,615	\$7,168	\$4,759	\$4,338	\$16,512		(d)	
Children's vehicles:											
Number of establishments.....	120	28	11	21	25	12	13	7	3		
Number of employees (average for the year).....	8,783	57	83	284	523	877	2,124	2,624	1,906		
Value added by manufacture.....	\$44,204	\$190	\$258	\$906	\$2,939	\$4,127	\$11,670	\$15,376	\$5,738		
Sporting and athletic goods:											
Number of establishments.....	864	352	147	137	108	51	46	14	7	2	
Number of employees (average for the year).....	29,773	711	961	1,872	3,253	3,519	7,030	4,583	7,344	(d)	
Value added by manufacture.....	\$107,532	\$2,395	\$2,673	\$6,541	\$10,675	\$12,878	\$22,905	\$18,491	\$30,974	(d)	

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947

[The first column shows the total value of shipments of the specified industry, divided among: (A) products classified in (primary to) the industry, (B) products classified in other industries (secondary to the specified industry), and (C) miscellaneous receipts. The second column shows the value of shipments of the primary products of the specified industry reported by establishments in other industries. The third column shows the total value of shipments of the primary products of the specified industry by all reporting manufacturers.]

[Money figures in thousands of dollars]

PIANOS INDUSTRY	Shipped by—			MUSICAL INSTRUMENTS, N. E. C., INDUSTRY	Shipped by—		
	Pianos industry	Other industries	All industries		Musical instruments n. e. c., industry	Other industries	All industries
Total shipments by the industry.....	\$55,086		\$51,921	Total shipments by the industry.....	\$31,366		
A. Pianos.....	51,621			A. Musical instruments and parts, except pianos and organs.....	23,437	\$3,216	\$31,653
B. Secondary products.....	3,044			B. Secondary products.....	1,991		
Piano and organ parts and materials.....	1,591			C. Miscellaneous receipts.....	938		
Other.....	1,453						
C. Miscellaneous receipts.....	421						

ORGANS INDUSTRY	Shipped by—			GAMES AND TOYS, N. E. C., INDUSTRY	Shipped by—		
	Organs industry	Other industries	All industries		Games and toys, n. e. c., industry	Other industries	All industries
Total shipments by the industry.....	\$12,372		\$14,453	Total shipments by the industry.....	\$181,939		
A. Organs.....	10,187	\$4,266		A. Games and toys, except dolls and children's vehicles.....	166,411	\$10,517	\$186,928
B. Secondary products (piano and organ parts and materials).....	1,793			B. Secondary products.....	13,888		
C. Miscellaneous receipts.....	392			C. Miscellaneous receipts.....	1,640		

PIANO AND ORGAN PARTS INDUSTRY	Shipped by—			DOLLS INDUSTRY	Shipped by—		
	Piano and organ parts industry	Other industries	All industries		Dolls industry	Other industries	All industries
Total shipments by the industry.....	\$19,865		\$22,947	Total shipments by the industry.....	\$69,786		
A. Piano and organ parts and materials.....	18,741	\$4,206		A. Dolls.....	61,711	\$1,488	\$63,199
B. Secondary products.....	934			B. Secondary products.....	7,327		
C. Miscellaneous receipts.....	190			C. Miscellaneous receipts.....	748		

See footnotes at end of table.

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947—Continued

CHILDREN'S VEHICLES INDUSTRY	Shipped by—			SPORTING AND ATHLETIC GOODS INDUSTRY	Shipped by—		
	Children's vehicles industry	Other industries	All industries		Sporting and athletic goods industry	Other industries	All industries
Total shipments by the industry	\$85,831			Total shipments by the industry	\$202,462		
A. Children's vehicles.....	68,380	\$18,078	\$86,458	A. Sporting and athletic goods.....	188,005	\$21,520	\$210,125
Baby carriages, walkers, strollers, and tenders.....	20,812	3,384	24,196	Fishing tackle.....	56,506	2,223	58,729
All other children's vehicles.....	47,157	14,321	61,478	Golf, tennis and baseball equipment; footballs, basketballs, etc....	64,346	9,750	74,096
Children's vehicles, not specified by kind.....	411	373	784	All other sporting and athletic goods.....	56,105	9,196	65,301
B. Secondary products.....	16,107			Sporting and athletic goods, not specified by kind.....	11,648	351	11,999
Infants' and children's wood furniture.....	1,576			B. Secondary products.....	12,419		
Games and toys (except dolls and children's vehicles).....	4,145			C. Miscellaneous receipts.....	1,438		
Other.....	10,386						
C. Miscellaneous receipts.....	1,344						

¹ Includes sale of reconditioned pianos not identified as to type.

² Includes value of a negligible quantity of miscellaneous wood products, combined to avoid disclosure.

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	1947			1939	
	Total shipments and interplant transfers		Production	Total production for sale and interplant transfer	
	Quantity (units)	Value f.o.b. plant	Quantity	Quantity	Value f.o.b. plant
Pianos, total	147,393	\$51,621	148,252	111,245	\$18,031
Verticals, uprights, or consoles, 37 inches or less in height.....	70,709	21,329	70,846	95,205	13,286
Verticals, uprights, or consoles, over 37 inches in height.....	72,401	26,059	72,652		
Grand pianos, six feet and under in length.....	4,051	3,910	4,504	15,589	4,513
Grand pianos, over six feet in length.....	232	323	250	451	232
Organs, total		14,453			4,128
Pipe and reed.....	(¹)	14,516		(¹)	12,032
Electronic.....	8,843	9,937	8,846	(²)	2,096
Piano and organ parts and materials, total		22,947			n.a.
Piano parts and materials.....		16,567			4,983
Organ parts and materials.....		6,380			(³)
Musical instruments and parts, except pianos and organs		31,653			11,384

PRODUCT	Unit of measure	1947		1939	
		Total shipments and interplant transfers		Total production for sale and interplant transfer	
		Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Toys and games, except dolls and children's vehicles, total			\$185,928		\$50,449
Toy trains and equipment (mechanical and electrical).....			22,774		4,800
Mechanical toys, except trains (propelled by springs or electricity, gear driven, miniature steam engines, etc.).....			15,957		2,472
Structural toy sets.....			4,866		2,265
Doll carriages and doll carts.....	Thousand	1,970	8,778	1,281	2,190
Model sets, construction (airplanes, ships, trains, etc.).....			5,187	(⁵)	(⁵)
Metal toys, other than those listed above.....			39,372		11,737
Wooden toys, other than those listed above.....			20,076		5,090
Other toys and games, including parts.....			55,915		21,895
Toys and games, not specified by kind.....			13,003		
Dolls, total			63,199		n.a.
Dolls, complete (except rubber dolls).....	Thousand	17,154	21,271	11,495	9,378
Rubber dolls.....	do	15,287	18,526	(⁵)	(⁵)
Doll clothes and doll parts.....			7,661		3,151
Stuffed toy animals.....	Thousand	9,123	11,737	n.a.	3,934
Dolls and doll parts, not specified by kind.....			4,004		

See footnotes at end of table.

MUSICAL INSTRUMENTS AND PARTS; TOYS; SPORTING AND ATHLETIC GOODS 805

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939—Continued

PRODUCT	Unit of measure	1947		1939	
		Total shipments and interplant transfers		Total production for sale and interplant transfer	
		Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Baby carriages, walkers, strollers, and tenders, total			\$21,196		\$5,030
Baby carriages, including combination carriage-strollers.....	Thousand	807	17,657	587	4,777
Strollers.....	do.	227	2,590		
Baby walkers.....	do.	810	3,943	511	1,253
All other children's vehicles, total			61,478		11,865
Velocipedes and tricycles, excluding chain-driven tricycles.....	Thousand	4,024	28,078	1,259	4,312
Chain-driven tricycles.....	do.	233	3,947		
Scooters.....	do.	1,130	2,431	589	865
Children's wagons (coaster, express, and other).....	do.	2,625	12,536	2,398	3,021
Steds.....	do.	1,770	4,622	908	975
Other children's vehicles (including children's automobiles, sidewalk cycles, three-wheel play cars, etc.).....			5,785		2,027
Parts for children's vehicles, sold separately.....			4,079		605
Children's vehicles, not specified by kind.....			784		
Fishing tackle, total			58,729		12,574
Wood and bamboo fishing rods.....	Thousand	954	6,096	n.a.	1,849
Metal fishing rods.....	do.	2,895	10,546	1,204	1,633
Fishing reels.....	do.	5,227	16,816	2,595	3,599
Flies, snelled hooks, leaders, and artificial bait.....	do.		14,136		5,493
Other fishing tackle (including fishing poles, fish hooks, floats, furnished lines, and sinkers).....	do.		10,184		
Fishing tackle, not specified by kind.....			951		
Golf, tennis, and baseball equipment; footballs and basketballs, etc.			74,096		n.a.
Golf balls:					
Up to and including \$5.60 per dozen.....	Thousand doz.	628	2,725	2,882	5,603
Over \$5.60 per dozen.....	do.	1,779	10,703		
Golf clubs:					
Irons:					
Up to and including \$3.60 each.....	Thousand	685	1,902		
Over \$3.60 each.....	do.	2,043	8,854		
Woods:				2,856	6,558
Up to and including \$4.20 each.....	do.	125	441		
Over \$4.20 each.....	do.	1,015	5,885		
Tennis balls.....	Thousand doz.	671	2,461	609	1,452
Tennis racket frames, sold separately.....	Thousand	310	807	253	677
Tennis rackets, complete.....	do.	357	1,081	687	1,421
Baseballs:					
Up to and including \$10.80 per dozen.....	Thousand doz.	273	1,265	537	1,991
Over \$10.80 per dozen.....	do.	381	5,139		
Soft or indoor type baseballs.....	do.	405	3,819	311	1,280
Baseball bats (including indoor bats).....	Thousand	3,332	3,188		(¹)
Baseball mitts and gloves.....	Thousand doz.	182	8,236	90	1,585
Footballs.....	do.	308	6,950	216	1,963
Basketballs.....	do.	90	5,114	42	1,244
Inflated athletic balls, other than footballs and basketballs.....	do.	72	1,607	19	203
All other golf, tennis, etc. equipment.....			3,913		
All other sporting and athletic goods, total			65,301		n.a.
Billiard and pool tables and accessories.....			5,306		2,968
Bowling alleys.....	Units	2,652	4,997	n.a.	(¹)
Bowling alley playing supplies, including bowling balls, pins, etc.....			11,395		(¹)
Skates:					
Roller:					
Sidewalk roller skates.....		(²)	7,976		
Rink roller skates.....	Thousand prs.	466	2,018	n.a.	3,508
Ice:					
Figure ice skates.....			1,593		1,844
Tubular ice skates.....			1,476		
Playground equipment.....			3,214		1,734
Winter sports equipment, including skis and ski equipment, snow shoes, sleighs, bobsleds, toboggans, etc.....			3,577		n.a.
Other sporting and athletic goods, including boxing goods, caddy bags, etc. (but excluding athletic clothing and shoes).....			23,039		19,301
All other sporting and athletic goods, not specified by kind.....			710		
Sporting and athletic goods, not specified by kind			11,999		

n.a.—Not available.
¹ Value of pipe and reed organs combined to avoid disclosing the operations of individual companies. The value of pipe organs constitutes the major portion of the total value shown. Quantity is not shown because of combination of dissimilar items.
² Includes a relatively small value of electric guitars and other electric musical instruments, combined to avoid disclosing the operations of individual firms. Quantity is not shown because of combination of dissimilar items.
³ A valid comparison between 1947 and 1939 cannot be made due to differences in method of reporting (see text).
⁴ This classification includes model construction sets, consisting of prefabricated materials and parts, sold as a unit for assembly by the final user. It excludes parts and accessories sold separately, such as wood, motors, rubber, glue, paint, etc. which may be used for model construction.
⁵ Not collected separately.
⁶ Comparable data not available. Included with "other sporting and athletic goods, etc." in 1939.
⁷ Includes golf club shafts sold separately, which cannot be published without disclosing the operations of individual companies. Also includes golf, tennis, baseball, basketball, etc. equipment not specified by kind.
⁸ Not reported by a sufficient number of establishments to permit publication of data on quantity.
⁹ Quantity not shown because of an unknown amount of duplication resulting from the reporting of skates, and shoe and skate combination outfits for the same skates. The value also contains an unknown amount of duplication.

OFFICE SUPPLIES; COSTUME JEWELRY; AND MISCELLANEOUS NOTIONS

This report shows 1947 Census of Manufactures statistics for establishments primarily engaged in the production of pens, mechanical pencils and pen points, lead pencils and crayons, hand stamps and stencils, artists' materials, carbon paper and inked ribbons, costume jewelry, artificial flowers, buttons, and needles and pins. These establishments have been classified in nine industries, described separately below.

Pens and Mechanical Pencils (*Full Standard Industrial Classification title and number: Pens, Mechanical Pencils, and Pen Points, 3951.*)—This industry comprises establishments primarily engaged in manufacturing fountain pens, stylographic pens, mechanical pencils, pen points, penholders, and parts for pens and mechanical pencils.

Lead Pencils and Crayons (*Standard Industrial Classification No. 3952.*)—This industry comprises establishments primarily engaged in manufacturing lead pencils, pencil leads, and crayons. Establishments primarily engaged in manufacturing mechanical pencils are classified in Industry 3951.

A considerable amount of the products primary to this industry was made in 1947 by establishments classified in other industries. Of the total value of \$45.5 million of lead pencils and crayons shipped during 1947, approximately 10 percent was shipped by establishments classified in other industries.

Hand Stamps and Stencils (*Full Standard Industrial Classification title and number: Hand Stamps, Stencils, and Brands, 3953.*)—This industry comprises establishments primarily engaged in manufacturing rubber and metal hand stamps, dies, and seals; steel letters and figures; stencils for use in painting or marking; and branding irons.

Of the total value of hand stamps and stencils shown in table 6, approximately 89 percent was made in the Hand Stamps and Stencils Industry and the remaining 11 percent was made in all other industries.

Artists' Materials (*Standard Industrial Classification No. 3954.*)—This industry comprises establishments primarily engaged in manufacturing materials and equipment for art work, such as airbrushes, drawing tables and boards, palettes, sketch boxes, pantographs, artists' colors and waxes, pyrography goods, drawing inks, and drafting materials. Establishments primarily engaged in manufacturing drafting instruments are classified in Industry 3811 (Laboratory, Scientific, and Engineering Instruments).

Carbon Paper and Inked Ribbons (*Standard Industrial Classification No. 3955.*)—This industry comprises establishments primarily engaged in the manufacturing of carbon paper, spirit and gelatin process stencil paper, and inked ribbons for typewriters, adding, and other business machines. Comparable 1939 commodity statistics for this industry are not available.

Costume Jewelry (*Full Standard Industrial Classification title and number: Costume Jewelry and Costume Novelties (Except Precious Metal), 3961.*)—This industry comprises establishments primarily engaged in manufacturing costume jewelry, costume novelties, and ornaments made of all materials, except precious metal and precious or semiprecious stones (Industry 3911).

For this 1947 census, two products classified in other industries by the Standard Industrial Classification have been included in this industry. These are cigarette lighters and compacts. The former is included in Industry 3999, Miscellaneous Fabricated Products, N.E.C., and the latter is included in Industry 3986, Jewelry Cases and Instrument Cases, by the Standard Industrial Classification system. These were classified in the Costume Jewelry Industry in this census after a review of the establishments making these products indicated that they were more closely connected with the Costume Jewelry Industry than the other industries mentioned.

Of the total value of costume jewelry shown in table 6, approximately 91 percent was made in the Costume Jewelry Industry and the remaining 9 percent was made in all other industries. In addition to shipping over \$149 million worth of costume jewelry, establishments classified in the Costume Jewelry Industry also shipped substantial quantities of other items, 10 percent of the total shipments of the industry consisting of products such as jewelry made of precious metals, lighting fixtures, etc.

Artificial Flowers (*Full Standard Industrial Classification title and number: Feathers, Plumes, and Artificial Flowers, 3962.*)—This industry comprises establishments primarily engaged in manufacturing artificial flowers, fruits, and foliage made from all materials, except glass (Industry 3231, Glass Products Made of Purchased Glass); in producing fancy feathers, plumes, and articles made principally of feathers and plumes; and curling, dyeing, and renovating ostrich feathers for the trade.

The scope of this industry in 1947 is identical with 1939, but prior to 1939 artificial flowers and plants were in a separate industry from feathers, plumes, and manufactures thereof. Data for previous years, however, have been combined to facilitate comparison.

Buttons (*Standard Industrial Classification No. 3963.*)—This industry comprises establishments primarily engaged in manufacturing buttons, button parts, and button blanks and molds, of all materials, except precious metal and precious and semiprecious stones (Industry 3911).

The value of shipments for this industry includes some duplication, representing chiefly the value of button blanks and molds sold to other establishments in the industry for completion. For a measure of the extent of this duplication see the figure for button blanks and molds in table 6.

Needles, Pins, and Fasteners (*Full Standard Industrial Classification title and number: Needles, Pins, Hooks and Eyes, and Similar Notions, 3964.*)—This industry comprises establishments primarily engaged in manufacturing notions such as machine and hand needles, pins, hooks and eyes, eyelets, buckles, and slide and snap fasteners.

Buckles and hair curlers, which are classified in this industry by the Standard Industrial Classification, were classified in other industries in the 1939 Census of Manufactures. In that census the buckles were included in Miscellaneous Fabricated Products, N.E.C., and the hair curlers were in Beauty and Barber Shop Equipment. The 1939 reports have been retabulated on the basis of the 1947 definition of this industry.

Of the total value of needles, pins, hooks and eyes, and similar notions shown in table 6, approximately 89 percent was made in the Needles, Pins, and Fasteners Industry and the remaining 11 percent was made in all other industries.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

[Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
3951 Pens and mechanical pencils:	184	15,553	\$40,606	12,527	\$28,207	\$89,897	\$57,471	\$147,368
1947	70	6,323	7,860	4,463	4,329	16,181	8,700	24,881
1939	55	n.a.	n.a.	5,703	5,356	16,732	9,238	25,970
1937 ⁴								
3952 Lead pencils and crayons:	50	6,279	14,726	5,190	10,409	23,633	21,404	45,037
1947	40	4,977	6,028	3,779	3,434	8,680	7,280	15,860
1939	33	n.a.	n.a.	4,416	4,212	10,275	8,013	18,288
1937 ⁴								
Total for Pens and mechanical pencils and Lead pencils and crayons:⁴	234	21,832	55,332	17,717	38,616	113,530	78,875	192,405
1947	110	11,300	13,888	8,242	7,763	24,761	15,980	40,741
1939	88	11,673	12,926	10,119	9,568	27,007	17,251	44,258
1937	98	10,663	11,096	8,962	7,663	23,835	14,052	37,887
1935	97	n.a.	n.a.	7,147	5,508	16,733	9,259	25,992
1933								
1931	114	n.a.	n.a.	7,914	8,064	27,689	13,347	41,036
1929 ⁴	131	12,907	17,463	10,847	12,231	42,131	23,373	65,504
1927	95	11,081	15,138	9,332	10,677	29,839	20,306	50,145
1925	103	11,535	15,210	9,839	10,884	33,883	17,753	51,646
1923	93	12,043	14,167	10,127	10,272	30,296	18,002	48,288
1921	81	10,334	12,450	8,537	8,784	22,674	13,684	36,358
1919	87	11,946	13,081	10,400	9,476	27,366	16,246	48,612
1914	86	7,565	4,690	6,303	3,079	6,752	6,597	16,349
1909	81	7,033	3,991	6,058	2,654	6,757	5,937	12,694
1904	62	5,240	2,452	4,661	1,797	4,601	3,073	7,674
1899	55	3,571	1,474	3,331	1,192	2,474	1,748	4,222
3953 Hands stamps and stencils:	426	4,684	12,900	3,462	8,729	20,047	8,011	28,058
1947	289	3,333	4,697	2,211	2,615	7,607	3,205	10,812
1939	266	3,284	4,793	2,375	2,929	7,339	3,047	10,386
1937	277	3,118	4,145	2,255	2,532	6,588	2,750	9,338
1935	256	2,866	2,990	2,196	2,062	5,782	1,855	7,637
1933								
1931	288	n.a.	n.a.	2,496	3,371	7,650	2,395	10,045
1929	332	3,901	6,428	2,971	4,081	11,225	3,811	15,038
1927	293	3,743	6,240	2,668	3,842	10,422	3,734	14,156
1925	323	4,077	6,624	2,930	4,015	11,251	4,070	15,321
1923	255	3,214	4,865	2,312	3,035	8,023	3,103	11,131
1921	234	2,786	4,186	2,068	2,657	6,293	2,786	9,079
1919	382	2,964	3,666	2,136	2,261	6,188	3,149	9,337
1914	384	2,338	1,734	1,767	1,149	3,059	1,426	4,485
1909	361	2,164	1,384	1,651	952	2,546	1,127	3,673
1904	327	1,786	1,021	1,506	797	2,074	737	2,811
1899	360	1,641	837	1,470	696	1,948	663	2,611
3954 Artists' materials:	60	1,360	3,220	997	1,944	5,968	7,330	13,298
1947	42	614	911	397	464	2,051	2,019	4,070
1939	40	516	726	372	403	1,501	1,282	2,783
1937	47	526	712	350	337	1,202	1,229	2,431
1935	38	n.a.	n.a.	265	259	1,148	988	2,137
1933	45	n.a.	n.a.	328	368	1,393	1,211	2,544
1931	45	798	1,324	623	794	2,942	2,998	5,940
1929 ⁴	51							
3955 Carbon paper and inked ribbons:	67	3,681	10,622	2,558	6,264	23,615	25,021	48,636
1947	58	3,014	4,970	1,741	2,132	10,620	10,157	20,777
1939	50	2,119	3,361	1,627	1,991	8,682	9,178	17,860
1937	56	1,954	3,011	1,425	1,629	7,193	7,502	14,695
1935	47	1,608	1,988	1,171	1,243	6,068	5,167	11,225
1933	54	n.a.	n.a.	1,463	1,742	6,034	6,034	13,476
1931	57	1,760	3,233	1,251	1,702	9,304	7,991	17,265
1929	49	1,499	2,628	1,078	1,514	7,773	6,020	13,793
1927 ⁴								
3961 Costume jewelry:	859	25,371	59,487	22,266	45,979	107,224	63,070	170,294
1947	299	n.a.	n.a.	12,228	10,118	28,439	15,322	38,761
1939								
3962 Artificial flowers:	445	7,130	13,448	6,569	10,713	23,813	15,650	39,463
1947	314	7,723	6,522	6,850	4,582	11,080	7,424	18,504
1939	250	6,780	6,511	6,218	4,330	9,329	7,369	16,698
1937	171	2,915	2,138	1,832	4,572	2,708	2,708	7,280
1935	230	3,960	4,912	3,473	3,527	9,653	5,914	15,567
1933								
1931	338	6,639	7,373	5,947	5,966	12,927	10,148	23,075
1929	440	8,827	7,642	7,642	7,147	17,822	13,699	31,521
1927	456	10,358	5,274	9,291	3,979	9,756	9,309	19,065
1925	412	11,063	5,134	10,016	3,974	10,354	13,627	23,981
1923	224	5,616	1,853	5,331	1,561	3,530	2,793	6,293
1921								
3963 Buttons:	453	10,418	21,835	9,417	17,542	34,356	24,580	58,916
1947	316	12,418	11,764	10,972	8,623	17,344	12,473	29,817
1939	291	13,081	11,674	12,026	9,256	17,713	13,578	31,291
1937	200	10,454	7,661	9,888	6,706	13,798	8,614	22,412
1935	242	9,928	11,256	9,034	8,814	17,477	11,501	28,978
1933								
1931	346	10,794	10,824	9,686	8,511	16,128	10,406	26,534
1929	557	17,183	17,122	15,577	13,773	25,095	16,745	41,840
1927	517	15,760	8,075	14,511	6,424	12,010	8,702	20,712
1925	444	17,485	8,088	16,427	6,789	13,167	9,541	22,708
1923	238	9,024	3,123	8,685	2,826	4,893	2,803	7,696

See footnotes at end of table.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS—Continued

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Needles, pins, and fasteners:								
1947	277	22,959	\$58,791	19,341	\$44,328	\$97,292	\$49,929	\$147,221
1939 ⁴	79	n.a.	n.a.	11,139	12,428	27,287	14,609	41,876
1937	52	11,211	13,665	9,580	10,154	25,949	10,291	36,240
1935	50	11,294	12,474	10,104	9,494	23,447	9,383	32,830
1933	45	7,044	7,132	6,412	5,708	16,940	5,818	22,758
1931	46	n.a.	n.a.	5,354	5,667	15,500	4,842	20,342
1929	43	7,014	8,587	6,242	6,566	15,843	6,188	22,031
1927	45	6,328	7,964	5,606	6,098	14,402	5,923	20,325
1925	48	6,463	7,357	5,850	5,856	12,248	5,926	18,174
1923	49	7,660	8,720	6,834	6,703	14,351	7,796	22,147
1921	68	7,358	7,350	6,542	5,542	12,733	6,163	18,896
1919	92	10,350	11,316	9,294	8,810	19,078	10,227	29,305
1914	49	5,730	3,105	5,339	2,607	4,649	3,242	7,891
1909 ¹⁰	49	4,951	2,458	4,638	2,064	4,365	2,329	6,694
1904	46	4,065	1,849	3,965	1,596	3,167	1,584	4,751
1899	52	2,761	1,215	2,653	1,067	2,010	1,228	3,238

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.² Figures for years prior to 1935 do not include cost of contract work.³ For 1947 and 1929, value of products shipped; for all other years, value of products made. See GENERAL EXPLANATIONS—Value of products shipped.⁴ For "Pens and mechanical pencils" and "Lead pencils and crayons," the figures prior to 1937 are not sufficiently comparable with those for later years to be shown in this table because of the transfer of mechanical pencils from the latter to the former industry. These industries have been combined in a portion of the table in order that a series could be shown for the entire period 1899-1947.⁵ The figures for 1929-47 include data for crayons, whereas those for earlier years do not include data for this item. Value added for 1929, excluding data for crayons and on a basis comparable with earlier years, was \$39.8 million.⁶ The figures for 1899-1933 do not include data for numbering machines.⁷ The figures for years prior to 1929 are not sufficiently comparable with those for later years to be shown in this table because they include data for crayons which are no longer classified in "Artists' materials."⁸ "Carbon paper and inked ribbons" was formerly included in "Typewriters." Therefore, separate statistics are not available for years prior to 1927.⁹ The returns for 1939 have been retabulated to provide figures comparable with those for 1947. No comparable figures for "Costume jewelry" are available for prior years. For "Needles, pins, and fasteners," value added for 1939, before retabulation and therefore on a basis comparable with earlier years, was \$24.7 million.¹⁰ The figures for 1899-1909 do not include data for metal hairpins.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947

[Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Pens and mechanical pencils, total¹	184	15,553	\$40,606	12,527	24,795	\$28,207	\$89,897	\$57,471	\$147,368	\$3,865
New England	26	818	1,908	741	1,462	1,365	3,389	2,329	5,718	262
Massachusetts	5	147	320	129	243	237	669	295	964	(c)
Rhode Island	18	468	1,173	427	841	784	2,208	1,603	3,811	77
Connecticut	3	203	415	185	378	344	512	431	943	(c)
Middle Atlantic	94	4,126	10,484	3,427	6,987	7,493	21,248	16,203	37,451	764
New York	71	2,164	5,263	1,817	3,542	3,829	12,039	11,557	23,596	345
North Central	43	9,051	25,146	7,064	13,762	17,471	59,543	35,926	95,469	2,213
South	9	1,559	2,209	1,145	2,207	1,569	4,375	1,969	6,344	547
Pacific	12	199	639	150	287	309	1,342	1,044	2,386	89
California	12	199	639	150	287	309	1,342	1,044	2,386	89
Lead pencils and crayons, total¹	50	6,279	14,726	5,190	10,726	10,409	23,633	21,404	45,037	1,105
New England	8	174	376	158	284	310	599	657	1,256	48
Middle Atlantic	22	4,262	11,140	3,380	6,794	7,867	16,904	13,563	30,487	738
New York	12	2,145	5,910	1,557	3,227	3,513	7,988	5,737	13,725	235
North Central	5	256	649	209	463	427	1,096	1,069	2,185	101
South	11	1,441	2,198	1,319	2,857	1,738	4,338	5,676	9,914	181
Pacific	4	146	363	124	228	267	696	539	1,235	37
Hand stamps and stencils, total¹	426	4,684	12,990	3,462	7,406	8,729	20,047	8,011	28,058	924
Northeast	163	2,327	6,542	1,780	3,511	4,468	9,677	3,632	13,309	425
Massachusetts	34	276	702	213	470	467	1,077	294	1,371	24
New York	64	899	2,584	680	1,511	1,792	3,864	1,495	5,359	250
Pennsylvania	30	788	2,188	577	1,195	1,437	3,103	1,147	4,250	96
East North Central	112	1,155	3,467	831	1,794	2,296	5,451	2,172	7,623	270
Ohio	30	214	649	140	302	352	921	313	1,234	23
Illinois	44	596	1,750	423	839	1,170	2,649	1,372	4,021	176
Michigan	25	254	832	194	402	584	1,458	400	1,858	52
West North Central	37	457	1,098	327	654	760	1,732	834	2,566	61
Missouri	15	298	749	218	429	533	1,107	590	1,697	46
South and West	114	745	1,793	524	1,147	1,205	3,187	1,373	4,560	168
Washington	8	100	264	66	134	185	374	146	520	21
California	34	189	505	140	307	376	997	386	1,383	58
Artists' materials, total¹	60	1,360	3,229	997	2,006	1,944	5,968	7,330	13,298	265
Northeast	38	577	1,446	452	857	818	2,955	4,336	7,291	159
New York	24	210	544	174	342	338	1,268	1,036	2,304	27
North Central	19	773	1,753	636	1,100	1,006	2,996	2,969	5,965	98
Pacific	3	10	21	9	19	20	17	25	42	8

See footnotes at end of table.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947—Continued

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Carbon paper and inked ribbons, total ¹	67	3,681	\$10,622	2,558	5,677	\$6,264	\$23,615	\$25,021	\$48,636	\$940
New England	7	573	1,332	429	905	943	4,324	4,806	9,130	154
Middle Atlantic	31	2,128	6,522	1,435	3,267	3,605	12,009	13,095	25,045	536
New York	23	1,501	5,001	985	2,240	2,639	8,956	9,851	18,837	204
North Central	21	767	2,254	540	1,191	1,362	6,122	5,854	11,976	301
Illinois	10	362	951	264	602	653	3,121	2,470	5,591	55
South and West	8	213	514	154	314	354	1,160	1,325	2,485	47
Costume jewelry, total ¹	859	25,371	59,487	22,266	46,532	45,979	107,224	63,970	170,294	3,146
New England	287	12,257	26,737	10,850	22,292	21,241	47,616	24,444	72,660	1,463
Rhode Island	232	8,808	18,535	7,912	16,128	14,964	33,632	18,313	51,945	818
Middle Atlantic	471	10,699	25,804	9,379	20,184	19,774	48,727	33,975	82,702	1,150
New York	429	7,252	17,096	6,274	12,780	12,292	30,228	24,050	54,278	440
North Central	39	1,804	5,353	1,524	3,052	4,061	8,673	3,488	12,161	447
Illinois	21	1,008	4,870	1,353	2,708	3,692	7,741	3,117	10,858	440
Michigan	6	137	376	123	250	309	634	272	906	6
South	17	303	807	242	458	382	1,040	557	1,597	39
Mountain	8	66	190	54	103	64	232	49	281	—
Pacific	37	242	536	217	443	457	936	557	1,498	47
California	32	234	507	210	426	430	868	502	1,370	47
Artificial flowers, total ¹	445	7,130	13,448	5,569	12,348	10,713	23,813	15,650	39,453	515
Northeast	369	6,090	11,614	5,637	10,721	9,364	20,149	13,446	33,595	263
New York	331	5,114	9,865	4,739	8,810	8,023	17,104	11,717	28,821	340
Pennsylvania	11	436	870	385	843	616	1,503	872	2,375	13
North Central	53	877	1,553	783	1,310	1,135	3,189	1,801	4,990	123
Indiana	5	153	333	128	154	250	650	449	1,069	11
Illinois	23	372	649	341	548	469	1,414	599	2,013	(4)
Iowa	4	101	151	89	164	104	263	76	399	75
Missouri	7	158	290	142	271	195	595	486	1,081	2
South and West	23	163	281	149	317	214	475	403	878	29
Buttons, total ¹	453	10,418	21,835	9,417	19,055	17,542	34,356	24,560	58,516	1,131
Northeast	309	6,300	14,493	5,603	11,527	11,393	23,135	16,531	39,666	519
Massachusetts	14	347	635	312	555	491	738	524	1,262	33
Connecticut	12	638	1,225	515	1,136	1,186	2,548	1,737	4,345	165
New York	236	4,242	9,747	3,777	7,737	7,737	16,714	11,239	27,553	311
New Jersey	26	794	1,800	736	1,491	1,529	2,423	2,352	4,775	48
East North Central	34	903	2,028	786	1,564	1,553	2,874	1,521	4,395	297
Illinois	20	492	897	441	848	701	1,156	659	1,815	(4)
West North Central	46	2,017	3,410	1,892	3,740	2,865	5,372	4,380	9,752	102
Iowa	41	1,902	3,288	1,784	3,516	2,750	5,171	4,178	8,348	99
South	53	1,158	1,828	1,098	2,148	1,641	2,779	2,026	4,805	212
West	11	40	76	38	76	70	196	102	298	1
Needles, pins, and fasteners, total ¹	277	22,959	59,791	19,341	39,309	44,328	97,292	49,429	147,221	5,578
New England	59	8,845	21,988	7,746	16,176	17,810	36,258	18,950	52,208	2,295
Massachusetts	13	1,698	4,769	1,479	3,528	3,976	9,120	4,665	13,785	400
Rhode Island	8	917	2,121	807	1,616	1,695	3,625	1,333	5,283	304
Connecticut	20	5,438	13,789	4,704	9,639	10,951	21,846	9,475	31,321	1,666
Middle Atlantic	181	11,642	31,172	9,534	18,955	22,557	50,745	30,068	80,813	2,999
New York	150	5,108	13,608	4,335	8,783	10,365	19,452	14,247	33,669	1,621
North Central	18	1,844	4,333	1,498	3,092	2,899	8,149	2,416	10,565	153
Illinois	10	1,389	3,353	1,093	2,330	2,275	6,823	1,816	8,639	144
South and West	19	628	1,298	563	1,086	1,062	2,140	1,495	2,635	131

¹ Withheld to avoid disclosing figures for individual companies.
² For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.
Carbon paper and inked ribbons: Middle Atlantic, New Jersey, 21; Pennsylvania, 2; North Central, Ohio, 4 (37); Illinois, 24 (3,202); Michigan, 1; Wisconsin, 3 (2,329); Minnesota, 2; Iowa, 2; Missouri, 7 (664); South, Virginia, 4 (237); South Carolina, 1; Georgia, 1; Tennessee, 1; Oklahoma, 1; Texas, 1.
Lead pencils and crayons: New England, Massachusetts, 6; Connecticut, 2; Middle Atlantic, New Jersey, 7 (1,563); Pennsylvania, 3 (554); North Central, Ohio, 2; Illinois, 2; Missouri, 1; South, West Virginia, 1; Georgia, 1; Kentucky, 1; Tennessee, 8 (952); Pacific, Oregon, 1; California, 3.
Hand stamps and stencils: Northeast, Maine, 2; Rhode Island, 6; Connecticut, 8 (44); New Jersey, 19 (297); East North Central, Indiana, 5 (12); Wisconsin, 8 (79); West North Central, Minnesota, 9 (97); Iowa, 8 (28); North Dakota, 1; Nebraska, 2; Kansas, 2; South and West, Delaware, 1; Maryland, 3 (62); District of Columbia, 2; Virginia, 3 (30); West Virginia, 2; North Carolina, 4 (13); South Carolina, 2; Georgia, 4 (23); Florida, 8 (24); Kentucky, 2; Tennessee, 4 (24); Alabama, 2; Mississippi, 1; Arkansas, 2; Louisiana, 4 (30); Oklahoma, 2; Texas, 19 (100); Colorado, 2; Utah, 1; Oregon, 4 (16).
Artists' materials: Northeast, Maine, 1; Massachusetts, 1; Rhode Island, 1; Connecticut, 1; New Jersey, 6 (113); Pennsylvania, 4 (124); North Central, Ohio, 5 (472); Indiana, 2; Illinois, 7 (56); Michigan, 3; Wisconsin, 2; Iowa, 1; Pacific, California, 3 (10).
Carbon paper and inked ribbons: New England, Massachusetts, 4 (263); Connecticut, 3 (310); Middle Atlantic, New Jersey, 6; Pennsylvania, 2; North Central, Ohio, 4 (38); Michigan, 1; Iowa, 1; Missouri, 1; South and West, Texas, 2; Colorado, 1; Oregon, 1; California, 4 (67).
Costume jewelry: New England, Massachusetts, 49 (2,992); Connecticut, 6 (459); Middle Atlantic, New Jersey, 26 (2,724); Pennsylvania, 16 (723); North Central, Ohio, 4 (38); Indiana, 1; Wisconsin, 5 (14); Minnesota, 1; Missouri, 1; South, Delaware, 1; Florida, 11; Kentucky, 4 (214); Texas, 1; Mountain, Colorado, 5 (14); New Mexico, 3 (52); Pacific, Washington, 5 (8).
Artificial flowers: Northeast, Massachusetts, 5 (37); Rhode Island, 1; Connecticut, 2; New Jersey, 19 (241); North Central, Ohio, 3 (23); Michigan, 5 (43); Wisconsin, 2; Minnesota, 2; Nebraska, 1; Kansas, 1; South and West, Maryland, 1; Virginia, 1; Florida, 3 (60); Kentucky, 1; Texas, 4 (17); Colorado, 1; California, 12 (75).
Buttons: Northeast, Maine, 1; Rhode Island, 15 (106); Pennsylvania, 5; East North Central, Ohio, 4 (53); Indiana, 6; Michigan, 3 (318); Wisconsin, 1; West North Central, Minnesota, 2; Missouri, 3; South, Arkansas, 23 (156); Delaware, 16 (258); Maryland, 4 (433); Virginia, 2; Kentucky, 2; Tennessee, 3 (218); Texas, 1; West, Utah, 1; California, 10.
Needles, pins, and fasteners: New England, Maine, 1; New Hampshire, 7; Vermont, 1; Middle Atlantic, New Jersey, 18 (1,837); Pennsylvania, 13 (4,697); North Central, Ohio, 2; Michigan, 2; Wisconsin, 2; Missouri, 2; Nebraska, 1; South and West, Maryland, 1; Virginia, 1; South Carolina, 1; Georgia, 2; Texas, 2; Colorado, 1; California, 11 (241).

CENSUS OF MANUFACTURES: 1947

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

(Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS)

ITEM	Industry								
	Pens and mechanical pencils	Lead pencils and crayons	Hand stamps and stencils	Artists' materials	Carbon paper and inked ribbons	Costume jewelry	Artificial flowers	Buttons	Needles, pins, and fasteners
ALL ESTABLISHMENTS									
Number of establishments.....	184	50	426	60	67	859	445	453	277
All employees:									
Number (average for the year).....	15,553	6,279	4,684	1,369	3,681	25,371	7,130	10,418	22,959
Salaries and wages, total.....	\$40,906	\$14,726	\$12,900	\$3,220	\$10,622	\$59,487	\$13,448	\$21,835	\$58,791
Production and related workers:									
Number (average for the year).....	12,527	5,190	3,462	997	2,558	22,266	6,569	9,417	19,341
Man-hours, total..... thousands.....	24,705	10,726	7,406	2,006	5,677	46,532	12,348	19,055	39,309
Wages, total.....	\$28,207	\$10,409	\$8,729	\$1,944	\$6,264	\$45,970	\$10,713	\$17,542	\$44,323
Value added by manufacture.....	\$89,897	\$23,633	\$20,047	\$5,968	\$23,615	\$107,224	\$23,813	\$34,356	\$97,292
ESTABLISHMENTS REPORTING DETAILED STATISTICS									
Number of establishments.....	184	50	346	60	67	513	273	310	187
All employees:									
Number (average for the year).....	15,553	6,279	4,442	1,360	3,681	23,718	6,102	9,603	22,338
Salaries and wages, total.....	\$40,906	\$14,726	\$12,359	\$3,220	\$10,622	\$56,706	\$11,804	\$20,607	\$57,456
Production and related workers:									
Number (average for the year).....	12,527	5,190	3,238	997	2,558	20,645	5,558	8,620	18,750
Man-hours, total..... thousands.....	24,705	10,726	6,966	2,006	5,677	43,295	10,329	17,464	38,127
Wages, total.....	\$28,207	\$10,409	\$8,268	\$1,944	\$6,264	\$43,317	\$9,133	\$16,353	\$43,128
Value added by manufacture.....	\$89,897	\$23,633	\$19,023	\$5,968	\$23,615	\$101,923	\$20,955	\$32,199	\$95,246
Number of employees for pay period ended nearest Oct. 15:									
All employees.....	14,836	6,270	4,473	1,327	3,646	29,315	6,625	9,514	22,754
Male.....	5,586	3,102	3,374	711	2,277	12,765	1,792	6,090	10,564
Female.....	9,250	3,168	1,099	616	1,369	16,550	4,833	4,424	12,190
Production and related workers.....	11,953	5,206	3,235	973	2,524	25,993	6,061	8,556	19,179
Male.....	4,627	2,462	2,642	523	1,615	11,018	1,457	4,487	8,593
Female.....	7,431	2,744	593	450	909	14,975	4,604	4,069	10,586
Force-account construction workers.....	2,878	1,064	1,238	354	1,122	3,322	564	858	3,575
Administrative, supervisory, sales, and all other.....	1,059	640	732	188	622	1,747	335	603	1,971
Male.....	1,819	424	506	166	460	1,675	229	855	1,604
Female.....									
All employees, number by month:									
January.....	16,902	6,303	4,431	1,360	3,757	23,375	6,817	10,867	23,398
February.....	17,717	6,335	4,433	1,391	3,754	23,368	6,678	10,808	23,272
March.....	17,700	6,453	4,482	1,427	3,770	23,304	6,520	10,089	23,177
April.....	17,102	6,378	4,460	1,427	3,663	21,446	5,737	9,078	22,145
May.....	15,991	6,371	4,411	1,388	3,590	19,446	5,414	8,990	21,305
June.....	15,149	6,319	4,388	1,378	3,626	19,436	5,168	8,951	20,807
July.....	13,869	6,143	4,379	1,299	3,678	20,051	5,348	8,933	20,984
August.....	13,381	6,221	4,389	1,330	3,684	23,043	5,727	9,131	21,640
September.....	13,626	6,167	4,421	1,363	3,645	25,805	5,892	9,287	22,339
October.....	14,836	6,270	4,473	1,327	3,646	29,315	6,625	9,514	23,754
November.....	15,342	6,225	4,476	1,314	3,638	29,160	6,531	9,718	23,056
December.....	14,898	6,119	4,565	1,299	3,664	26,617	6,543	10,080	23,343
Cost of materials, fuel, electricity, and contract work									
Materials, parts, containers, and supplies.....	\$57,471	\$21,404	\$7,065	\$7,330	\$25,021	\$59,401	\$13,793	\$23,171	\$48,766
Fuels, total.....	53,878	20,948	6,708	7,193	24,681	54,414	13,131	22,042	46,571
Bituminous coal.....	149	94	18	42	125	351	69	269	612
Anthracite.....	1	33	2	1	10	5	15	136	126
Coke.....		16	1			1	2	12	86
Fuel oils.....	76	67	28	7	52	167	30	44	186
Gas.....	20	34	38	3	12	9	13	42	108
Other fuels.....	7	13	9		12	7	9	25	7
Purchased electric energy.....	317	199	134	67	154	580	115	441	727
Contract and commission work.....	3,127	3	129	28	61	4,056	478	429	956
Value of inventories:									
Beginning of year, total.....	\$33,061	\$10,369	\$2,765	\$2,800	\$10,280	\$19,357	\$4,006	\$6,820	\$22,362
Finished products.....	5,576	2,174	1,058	n.a.	2,499	4,768	1,950	2,261	6,490
Materials, supplies, and work in process.....	27,485	8,195	1,707	n.a.	7,781	14,589	2,056	4,559	15,872
End of year, total.....	31,491	13,301	2,959	2,849	11,609	17,427	3,638	8,738	26,981
Finished products.....	6,300	3,576	1,140	n.a.	2,761	5,090	1,862	3,429	9,169
Materials, supplies, and work in process.....	25,191	9,725	1,819	n.a.	8,848	12,337	1,776	5,309	17,812
Expenditures for plant and equipment:									
New plant and equipment.....	\$3,865	\$1,105	\$924	\$265	\$940	\$3,146	\$515	\$1,131	\$5,578
Construction and major alteration of fixed plants.....	869	315	363	26	255	759	118	106	889
Buildings.....	699	299	365	25	208	698	101	98	817
Other construction.....	170	16	8	1	47	61	17	8	72
Machinery and equipment.....	2,996	790	561	239	685	2,387	397	1,025	4,689
Production machinery and equipment.....	2,550	715	471	212	656	1,917	347	944	4,187
Other machinery and equipment.....	446	75	90	27	129	470	50	81	502
Used plant and equipment, and land.....	141	27	84	15	110	181	263	42	306
Number of highway-type motor vehicles owned or leased:									
Trucks.....	25	32	20	14	27	79	56	39	69
By manufacturer's rated capacity.....									
Under 1½ tons.....	11	12	15	6	16	43	24	14	30
1½ tons.....	12	13	5	8	7	14	12	19	21
Over 1½ tons and less than 3½ tons.....	1	3			4	15	4	3	10
3½ tons and less than 5 tons.....	2	3				3	4	1	2
5 tons and over.....							2	2	6
By body type.....									
Van.....	6	3			2	18	10	2	13
Stake or platform.....	8	10	1		2	10	22	11	8
Panel or light delivery.....	8	11	14	2	19	45	21	19	35
All other trucks.....	3	8	5	3	4	11	3	7	13
Truck tractors.....	1								
Trailers and semitrailers.....	1								

n.a.—Not available.

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A 4 appears in the column where the figure has been omitted and the combined figure is printed in italics]

INDUSTRY AND ITEM	Total, all establishments	Establishments with an average of—									
		1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees	500-999 employees	1,000-2,499 employees	2,500 employees and over
Pens and mechanical pencils:											
Number of establishments.....	184	42	34	28	39	16	14	6	1	3	1
Number of employees (average for the year).....	15,553	101	248	389	1,226	1,059	2,004	2,179	(d)	8,347	(d)
Value added by manufacture.....	\$89,897	\$549	\$868	\$1,399	\$5,612	\$5,729	\$12,274	\$11,821	(d)	\$51,646	(d)
Lead pencils and crayons:											
Number of establishments.....	50	8	4	6	7	10	8	3	3	1	
Number of employees (average for the year).....	6,279	20	31	93	209	654	1,195	958	3,119	(d)	
Value added by manufacture.....	\$23,633	\$110	\$82	\$294	\$746	\$2,658	\$4,006	\$2,215	\$13,522	(d)	
Hand stamps and stencils:											
Number of establishments.....	426	204	101	59	49	7	5	1			
Number of employees (average for the year).....	4,684	413	668	802	1,452	439	919	(d)			
Value added by manufacture.....	\$20,047	\$2,250	\$2,971	\$3,339	\$6,286	\$2,010	\$3,191	(d)			
Artists' materials:											
Number of establishments.....	60	25	13	9	5	6	1	1			
Number of employees (average for the year).....	1,360	44	83	133	166	934	(d)	(d)			
Value added by manufacture.....	\$5,968	\$189	\$329	\$657	\$884	\$3,969	(d)	(d)			
Carbon paper and inked ribbons:											
Number of establishments.....	67	15	9	9	13	11	8	2			
Number of employees (average for the year).....	3,681	30	56	135	440	801	2,219	(d)			
Value added by manufacture.....	\$23,615	\$222	\$303	\$814	\$2,438	\$5,472	\$14,366	(d)			
Costume jewelry:											
Number of establishments.....	859	308	182	157	132	37	24	12	3	4	
Number of employees (average for the year).....	25,371	637	1,227	2,143	4,058	2,547	3,921	4,052	1,873	4,913	
Value added by manufacture.....	\$107,224	\$3,136	\$4,880	\$8,046	\$14,861	\$9,782	\$15,800	\$18,421	\$6,347	\$26,861	
Artificial flowers:											
Number of establishments.....	445	125	121	108	64	21	4	2			
Number of employees (average for the year).....	7,130	282	816	1,500	1,929	1,527	1,076	(d)			
Value added by manufacture.....	\$23,813	\$1,179	\$3,102	\$4,030	\$7,267	\$4,768	\$2,867	(d)			
Buttons:											
Number of establishments.....	463	140	103	88	70	28	20	4			
Number of employees (average for the year).....	10,418	297	708	1,198	2,056	1,945	2,854	1,360			
Value added by manufacture.....	\$34,356	\$1,162	\$2,711	\$3,368	\$6,118	\$6,463	\$9,901	\$4,613			
Needles, pins, and fasteners:											
Number of establishments.....	277	78	43	41	41	26	29	12	2	4	1
Number of employees (average for the year).....	22,959	196	291	586	1,327	1,771	4,258	6,502	(d)	8,088	(d)
Value added by manufacture.....	\$97,292	\$896	\$913	\$2,400	\$4,968	\$7,456	\$14,086	\$29,759	(d)	\$36,814	(d)

CENSUS OF MANUFACTURES: 1947

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947

[The first column shows the total value of shipments of the specified industry, divided among: (A) products classified in (primary to) the industry, (B) products classified in other industries (secondary to the specified industry), and (C) miscellaneous receipts. The second column shows the value of shipments of the primary products of the specified industry reported by establishments in other industries. The third column shows the total value of shipments of the primary products of the specified industry by all reporting manufacturers]

[Money figures in thousands of dollars]

PENS AND MECHANICAL PENCILS INDUSTRY	Shipped by—			ARTISTS' MATERIALS INDUSTRY	Shipped by—		
	Pens and mechanical pencils industry	Other industries	All industries		Artists' materials industry	Other industries	All industries
Total shipments by the industry	\$147,368			Total shipments by the industry	\$13,298		
A. Pens and mechanical pencils.....	131,145	\$6,429	\$137,574	A. Artists' materials.....	10,439	\$3,590	\$14,029
B. Secondary products.....	10,026			B. Secondary products.....	2,724		
Chemical specialties.....	2,833			C. Miscellaneous receipts.....	135		
Lead pencils and crayons.....	1,637						
Other secondary products.....	5,556						
C. Miscellaneous receipts.....	6,197						
Contract and commission work.....	703						
Repair work.....	2,091						
Scrap and salable refuse.....	3,493						
LEAD PENCILS AND CRAYONS INDUSTRY	Shipped by—			CARBON PAPER AND INKED RIBBONS INDUSTRY	Shipped by—		
	Lead pencils and crayons industry	Other industries	All industries		Carbon paper and inked ribbons industry	Other industries	All industries
Total shipments by the industry	\$45,037			Total shipments by the industry	\$48,636		
A. Lead pencils and crayons.....	41,088	\$4,404	\$45,492	A. Carbon paper and inked ribbons.....	147,563	(d)	\$47,563
B. Secondary products.....	3,900			B. Secondary products and miscellaneous receipts.....	(d)		
C. Miscellaneous receipts.....	49						
HAND STAMPS AND STENCILS INDUSTRY	Shipped by—			ARTIFICIAL FLOWERS INDUSTRY	Shipped by—		
	Hand stamps and stencils industry	Other industries	All industries		Artificial flowers industry	Other industries	All industries
Total shipments by the industry	\$28,058			Total shipments by the industry	\$39,463		
A. Hand stamps, stencils, and brands.....	24,514	\$3,041	\$27,555	A. Feathers, plumes, and artificial flowers.....	37,854	\$437	\$38,291
B. Secondary products.....	2,811			B. Secondary products.....	1,061		
C. Miscellaneous receipts.....	733			C. Miscellaneous receipts.....	548		
COSTUME JEWELRY INDUSTRY	Shipped by—			BUTTONS INDUSTRY	Shipped by—		
	Costume jewelry industry	Other industries	All industries		Buttons industry	Other industries	All industries
Total shipments by the industry	\$170,294			Total shipments by the industry	\$58,916		
A. Costume jewelry and costume novelties (except precious metals).....	149,237	\$14,769	\$164,006	A. Buttons and parts.....	53,785	\$3,260	\$57,045
B. Secondary products.....	16,257			B. Secondary products.....	4,125		
Jewelry made of gold or palladium filled, rolled gold or palladium plate, and sterling silver.....	5,391			C. Miscellaneous receipts.....	1,006		
All other secondary products.....	10,866						
C. Miscellaneous receipts.....	4,600						
NEEDLES, PINS, AND FASTENERS INDUSTRY	Shipped by—			NEEDLES, PINS, AND FASTENERS INDUSTRY	Shipped by—		
	Needles, pins, and fasteners industry	Other industries	All industries		Needles, pins, and fasteners industry	Other industries	All industries
Total shipments by the industry	\$147,221			Total shipments by the industry	\$147,221		
A. Needles, pins, fasteners, and similar notions.....	130,557	\$16,680	\$147,137	A. Needles, pins, fasteners, and similar notions.....	130,557		
B. Secondary products.....	13,403			B. Secondary products.....	13,403		
C. Miscellaneous receipts.....	3,261			C. Miscellaneous receipts.....	3,261		
Scrap and salable refuse.....	1,730			Scrap and salable refuse.....	1,730		
Other miscellaneous receipts.....	1,531			Other miscellaneous receipts.....	1,531		

^d Withheld to avoid disclosing figures for individual companies.

¹ Includes an insignificant amount of the products of this industry produced in other industries.

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	Unit of measure	1947		1939	
		Total shipments and interplant transfers		Total production for sale and interplant transfer	
		Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Pens and mechanical pencils			\$137,574		\$21,744
Fountain pens, complete, all types, except ball	M	36,931	63,741	29,852	12,220
Ball-point type pens, complete	do	30,437	23,149	(1)	(1)
Desk pen sets:				489	686
Fountain pen type (including ball-point pen type)	M sets	707	2,308		
Inkwell-reservoir (dip) type	do	1,042	1,450		
Pen points for use with ordinary penholders, for sale separately, excluding pen points for fountain pen or desk pen set use	M gross	1,286	1,200		2,815
Miscellaneous pen and mechanical pencil parts, for sale separately ²			15,117		
Pencils, mechanical	M	70,404	28,201	43,353	6,923
Pens and mechanical pencils, not specified by type			2,498		
Lead pencils and crayons			45,492		14,349
Pencils, nonmechanical:					
Black lead	M gross	9,677	26,100	5,223	7,545
Other (indelible, colored, etc.)	do	1,213	5,081	569	1,701
Refill leads for mechanical pencils, for sale separately			2,569		1,949
Other pencil leads and pencil parts, for sale separately (except erasers)			2,672		712
Crayons, including chalk, pastel, charcoal, etc.			6,692		2,940
Wax			1,352		1,302
Other materials (chalk, gypsum, etc.)			1,026		
Lead pencils, pencil parts, and crayons, not specified by type					
Hand stamps, stencils, and brands			27,555		
Rubber stamps			9,335		
Metal stamps, marking dies, and seals (including hand presses for seals and marking dies)			8,248		(3)
Other marking devices, such as stencils, letters, figures, and numerals, stamp pads, branding irons, etc.			6,419		
Hand stamps, stencils, and brands, not specified by type			3,553		
Artists' materials			14,029		(3)
Carbon paper and inked ribbons			47,563		N.A.
Typewriter ribbons			11,017		5,427
Other inked ribbons			2,569		1,755
Coated carbon paper (roll and flat stock) ⁴			18,428		11,727
One-time carbon paper (roll and flat stock) ⁴			8,614		
Spirit process master copies ⁵			3,321		
Gelatin process master copies ⁵			2,371		N.A.
Carbon paper and inked ribbons, not specified by type			1,243		
Costume jewelry and costume novelties (except precious metal)			164,006		
Base metal, whether or not electroplated with gold, silver, chromium, etc.			2,236		
Rings			9,296		
Men's jewelry, except watch attachments ⁷			61,585		
Women's and children's jewelry and costume novelties, except watch attachments			2,983		
Watch attachments (bracelets for watches)			3,508		(4)
Fraternal, college, and school jewelry and emblems, including military insignia (except rings)			992		
Religious jewelry ⁸			47,095		
Other jewelry worn or carried about the person ⁹			13,272		
Imitation pearls (including necklaces)			8,583		
Other costume jewelry and costume novelties (made of plastic, wood, leather, etc.)			14,376		
Costume jewelry and costume novelties, not specified by type			38,291		(5)
Feathers, plumes and artificial flowers			57,045		20,423
Buttons and button blanks					
Buttons:					
Metal	M gross	8,083	6,668	6,966	3,241
Plastic:					
Metal	do	7,124	5,217	13,828	3,066
Casein and casein compound					
Other plastics:					
Thermosetting	do	31,743	5,538	23,072	10,877
Thermoplastic	do	9,003	4,729		
Pearl or shell:					
Fresh water	do	8,254	8,166	11,228	3,048
Ocean	do	5,087	7,902	9,131	5,207
Vegetable ivory	do	778	756	2,702	1,535
Other buttons (fabric covered, wood, bone and hoof, leather, etc.)			4,637		11,421 ⁶
Button blanks or molds, backs and parts for sale as such			8,185		3,135
Buttons and button blanks, not specified by type			5,227		(11)

See footnotes at end of table.

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939—Continued

PRODUCT	Unit of measure	1947		1939	
		Total shipments and interplant transfers		Total production for sale and interplant transfer	
		Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Needles, pins, fasteners, and similar notions			\$147,137		n.a.
Needles					
Knitting machine:					
Latch	M	98,538	4,941	74,313	\$2,737
Spring-beard	do	174,257	2,489	152,112	1,710
Sewing machine (household and industrial dry-thread)	do	265,747	6,046	180,221	2,130
Other needles (shoe machine, hand sewing, hand knitting, crocheting, darning, etc.)			3,684		1,061
Pins (except jewelry):					
Common or toilet (including stuck pins)	M lbs.	3,224	3,043	(12)	1,530
Hairpins, metal:					
"Bobby" type	do	7,330	8,320	3,726	1,892
Other types	do	1,089	1,049	6,400	1,246
Safety pins	M gross	16,828	5,075	12,004	1,627
Other pins (hat-pins, glass-head pins, plastic hairpins, etc.)			1,328		n.a.
Fasteners, buckles, and apparel trimming:					
Zippers or slide fasteners	M ¹¹	617,284	57,630	n.a.	18,876
Snap fasteners:					
Sew on type	Great gross	642,692	1,634		2,463
Other snap fasteners			8,577		
Metal buckles for wearing apparel (excluding costume jewelry)			7,111		n.a.
Other fasteners, buckles, and apparel trimming (including hooks and eyes)			20,851		n.a.
Tape (hook and eye and snap fastener)	Gross yds.	149,269	4,191		n.a.
Hair curlers, except those designed for beauty parlor use ¹⁴			3,083		2,042
Needles, pins, fasteners, and similar notions, not specified by kind			7,485		

n.a.—Not available.

¹ Not produced in 1939.² Comparable 1939 data for individual products not available.³ Includes parts such as penholders, pen points for fountain pen or desk pen set use, renewal parts, etc.⁴ Data for 1939 were retabulated to exclude mechanical pencil parts from the classification "Other pencil parts."⁵ The 1939 reporting form did not request detailed commodity statistics.⁶ A total of 18,139 tons of paper was used in the manufacture of these items.⁷ Men's dress belt buckles, sold separately, are included under costume jewelry. Metal buckles for attachment to bells by manufacturers are included under "Needles, Pins, Fasteners, and Similar Notions."⁸ Includes rosaries, chaplets, religious medals, crosses, etc.⁹ Includes cigar and cigarette cases and lighters, compacts, vanity cases, etc.¹⁰ Revised 1939 data. These data include 7,356,000 gross of plastic buttons, valued at \$1.7 million produced by establishments classified in the "Fabricated Plastic Products" industry. These plastic buttons, which were other than casein or casein compound type, were not included in the commodity totals previously published.¹¹ Buttons not reported by type included with other buttons in 1939.¹² Common or toilet pins were reported in 1939 with two units of measure: 2,827,000 pounds valued at \$1.0 million and 2,101,000 packs of 3,360 pins valued at \$0.5 million.¹³ When zippers or slide fasteners were sold in continuous chains, they were reported on the basis of 12 inches constituting one unit.¹⁴ Excludes curlers sold with home-type permanent wave kits.

TABLE 7.—SELECTED MATERIALS CONSUMED, BY KIND, IN THE NEEDLES, PINS, AND FASTENERS INDUSTRY: 1947

[The table below summarizes the consumption of selected metal shapes by manufacturers during 1947. For each shape, manufacturing establishments were required to report consumption, in quantity and cost, provided that such usage during 1947 exceeded the following amounts: for iron castings, steel castings, each of six carbon steel shapes—50 short tons; for alloy steel bars and all other alloy steel—25 short tons; for stainless steel, brass and copper wire mill shapes, copper and brass castings, aluminum mill shapes and aluminum castings—10 short tons]

[Money figures in thousands of dollars]

METAL SHAPE	Establishments consuming more than specified quantities			METAL SHAPE	Establishments consuming more than specified quantities		
	Number	Short tons	Cost		Number	Short tons	Cost
Iron castings, rough and semifinished	(1)	(4)	(4)	Steel mill shapes and forms—Continued			
Steel castings, rough and semifinished				Carbon steel—Continued			
Steel mill shapes and forms	n.a.	23,205	\$4,136	All other mill shapes and forms			
Carbon steel:				Alloy steel, except stainless:	(1)	470	\$92
Bars and bar shapes				Bars and bar shapes			
Sheet and strip	26	13,027	1,975	All other mill shapes and forms			
Structural shapes				Stainless steel			
Plates				Copper and copper-base alloy:			
Wire	24	9,708	2,069	Brass and wire mill shapes and forms	47	17,635	11,018
				Castings, rough and semifinished			
				Aluminum:			
				Aluminum mill shapes	24	1,881	1,296
				Castings, rough and semifinished			

n.a.—Not available.

¹ Withheld to avoid disclosing figures for individual companies.² Less than 5 establishments.

FABRICATED PLASTICS PRODUCTS, NOT ELSEWHERE CLASSIFIED, AND OTHER MISCELLANEOUS MANUFACTURED PRODUCTS

This report shows the 1947 Census of Manufactures statistics for establishments engaged primarily in the production of plastics products, brooms and brushes, cork products, matches, candles, fireworks and pyrotechnics, jewelry and instrument cases, lampshades, and morticians' goods. These establishments have been classified in nine industries described separately below.

Plastics Products, Not Elsewhere Classified (*Full Standard Industrial Classification title and number: Fabricated Plastics Products, Not Elsewhere Classified, 3971.*)—This industry comprises establishments primarily engaged in molding primary plastics for the trade, and manufacturing finished plastics products, not elsewhere classified. Establishments primarily engaged in manufacturing plastics materials in the form of sheets, rods, tubes, granules, powders, or liquids are classified in the Plastics Materials Industry (2823). Establishments making plastics products primary to other industries are classified in those industries, for example, plastic jewelry cases in the Jewelry and Instrument Cases Industry (3986).

The plants classified in this industry generally mold, shape, stamp, or fabricate by specialized equipment a variety of plastic parts or products according to customer's specifications.

Separate reports covering the manufacture of plastic parts, when incorporated in other products in the same establishment, were not secured. Detailed product information is lacking for 472 small establishments which did not report shipment data by the prescribed classes. Total shipments for these establishments amounting to \$14,387,000 are included in "Plastics products, not elsewhere classified, not specified by kind" in tables 5 and 6.

Data showing monthly production and shipment figures for plastic caps used on nonfood containers appear in "Facts for Industry," series M75C, Canning and Packaging Closures.

Brooms and Brushes (*Standard Industrial Classification No. 3981.*)—This industry comprises establishments primarily engaged in manufacturing household, industrial, and street-sweeping brooms; and brushes such as paint brushes, tooth brushes, toilet brushes, and household and industrial brushes. In 1939 and previous years, manufacturers of brooms and of brushes constituted separate industries, but their statistics have been combined to conform to the 1947 classification. There are no data included in this report for any year for institutions for the blind engaged in making brooms. In 1939, the value of their broom production amounted to approximately \$1,000,000.

Cork Products (*Standard Industrial Classification No. 3982.*)—This industry comprises establishments primarily engaged in manufacturing cork products from whole or ground cork. Important products of this industry include

bottle corks, life preservers, insulating materials, tile, and other articles made of cork. Establishments primarily engaged in manufacturing cork gaskets are classified in the Gaskets and Asbestos Insulations Industry (3293), and manufacturers of cork linoleum products in the Hard Surface Floor Coverings Industry (2274).

Cork discs made by closure manufacturers (Industry 3643, Metal Stampings) for use within the same plant are excluded from table 6 below, but those sold as such or shipped to affiliated plants are included.

There has been a marked shift in the industrial classification of establishments that reported in the 1939 Census of Manufactures. These shifts materially affect the comparability of the 1947 and 1939 data on employment, pay rolls, cost of materials, value of product, etc. Industry classification of establishments in the census for both years was made on the same basis, i.e., major product of the plant. However, several large plants in the "Cork Products" industry in 1939 manufactured cork gaskets as a major activity in 1947, which assigned those plants to the newly created "Gaskets and Asbestos Insulations" industry. In addition to these shifts, other plants whose major product was cork discs in 1939 reported beverage crowns as their major item in 1947 and were classified in the "Metal Stampings" industry.

Matches (*Standard Industrial Classification No. 3983.*)—This industry comprises establishments primarily engaged in manufacturing matches, regardless of the material used.

Candles (*Standard Industrial Classification No. 3984.*)—This industry comprises establishments primarily engaged in manufacturing candles for lighting or for decorative and ceremonial purposes from such materials as fatty acids, beeswax, or mineral and animal waxes.

Fireworks and Pyrotechnics (*Standard Industrial Classification No. 3985.*)—This industry comprises establishments primarily engaged in manufacturing fireworks of all kinds, flares and railroad torpedoes and fuses. Establishments primarily engaged in manufacturing safety fuses and detonators are classified in the Explosives Industry (2826). Squibs formerly classified in this industry are now classified in the Explosives Industry.

Jewelry and Instrument Cases (*Standard Industrial Classification No. 3986.*)—This industry comprises establishments primarily engaged in manufacturing cases, fancy boxes, and trays for jewelry, instruments, cutlery, eyeglasses, combs, pipes, toilet sets, etc. Establishments primarily engaged in manufacturing similar cases of leather are classified in Women's Handbags and Purses Industry (3172), and precious metals in the Jewelry, Silverware, and Plated Ware Industries (Group 891). Cigar and cigarette cases, compacts, and vanity cases not made of precious metals are classified in the Costume Jewelry Industry (3961).

Lamp Shades (*Standard Industrial Classification No. 3987.*)—This industry comprises establishments primarily engaged in manufacturing lamp shades of all materials except glass and metal. Glass lamp shades are classified in the Pressed and Blown Glassware, Not Elsewhere Classified, Industry (3229) and metal in the Lighting Fixtures Industry (3471).

Morticians' Goods (*Standard Industrial Classification No. 3988.*)—This industry comprises establishments primarily engaged in manufacturing caskets, coffins, burial cases, and coffin shipping cases, whether of wood or other materials (except concrete—Concrete Products Industry, No. 3271);

morticians' supplies and accessories such as burial garments, gloves, slippers, casket linings, and embalming fluids; and morticians' paraphernalia and equipment. Firms manufacturing caskets and coffins under Government contract for the return of World War II dead are included. It is possible that statistics for completed caskets and coffins in table 6 contain some duplication. Some firms do not sell directly to funeral directors, but distribute their caskets and coffins through other manufacturers, who may have also reported these products. However, a check has been made of the major producers to assure that this did not occur. Such duplication, if it exists, is therefore believed to be relatively small.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

(Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS)

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Plastics products, n.e.c.:								
1947	1,360	60,092	\$159,024	51,512	\$123,583	\$289,594	\$213,455	\$503,049
1939	216	17,953	24,289	15,094	17,888	40,157	31,747	71,904
1937	129	n.a.	n.a.	14,184	16,965	35,499	26,640	62,139
Brooms and brushes:								
1947	706	18,551	44,875	15,543	31,162	87,288	92,523	179,811
1939	565	14,406	16,151	11,078	10,746	29,002	31,307	60,309
1937	532	13,544	13,446	11,982	10,155	25,753	30,411	56,164
1935	598	12,745	12,947	10,976	9,079	30,058	26,372	56,430
1933	481	10,660	8,631	9,566	6,932	16,848	16,801	33,049
1931	598	n.a.	n.a.	9,977	9,318	23,470	20,492	43,962
1929	710	13,775	17,469	11,803	12,132	33,380	31,336	64,716
1927	696	14,257	17,428	12,123	12,519	34,660	31,729	86,289
1925	723	14,974	16,153	12,561	13,106	34,303	33,235	67,538
1923	750	15,991	18,727	13,449	13,690	36,271	40,502	76,773
1921	736	12,785	14,311	10,782	10,287	24,651	29,082	53,733
1919	1,413	31,928	18,417	14,281	12,822	32,248	36,963	69,211
1914	1,227	14,780	8,386	12,855	6,085	14,769	17,210	31,979
1909	1,282	13,692	7,065	12,153	6,404	13,548	15,578	29,126
1904	1,316	12,407	5,305	11,425	4,380	10,105	10,999	21,104
1899	1,523	11,246	4,545	10,346	3,788	8,940	9,544	18,494
Cork products:								
1947	36	2,485	6,802	2,180	5,427	11,657	18,420	30,077
1939	35	3,597	4,881	2,923	3,302	9,311	8,413	17,724
1937	35	4,015	5,113	3,599	4,136	7,878	13,935	21,733
1935	34	3,370	3,511	3,033	2,776	6,719	7,268	13,087
1933	30	3,059	2,638	2,797	2,189	6,327	5,277	11,604
1931	31	n.a.	n.a.	3,018	3,027	8,260	6,617	14,977
1929	35	4,253	5,111	3,642	4,209	10,420	12,603	23,023
1927	27	3,558	4,434	3,185	3,560	7,974	9,395	17,860
1925	33	3,725	4,471	3,297	3,538	8,761	7,269	16,020
1923	39	3,887	4,513	3,478	3,594	7,520	8,046	15,568
1921	45	3,114	3,516	2,774	2,672	6,195	6,773	12,968
1919	62	4,031	4,415	3,545	3,387	7,147	9,135	16,282
1914	52	3,705	1,980	3,454	1,582	3,124	4,761	7,875
1909	62	3,327	1,365	3,142	1,098	2,505	3,435	5,940
1904	50	3,031	1,086	2,895	888	2,032	2,459	4,491
1899	62	2,476	883	2,340	688	1,988	2,404	4,392
Matches:								
1947	29	7,350	16,422	6,612	13,406	31,302	25,355	56,657
1939	28	5,940	6,708	5,426	5,598	11,479	14,098	25,577
1937	25	5,693	6,268	5,261	5,392	10,688	20,214	30,902
1935	24	5,495	5,492	4,693	4,693	11,401	19,039	30,440
1933	18	4,987	4,510	4,729	4,037	14,604	11,679	26,373
1931	19	n.a.	n.a.	3,369	3,493	7,598	10,875	18,473
1929	21	4,121	4,920	3,760	4,118	7,825	12,626	20,351
1927	19	4,181	4,688	3,905	4,131	13,022	11,884	24,906
1925	25	4,939	5,406	4,627	4,707	10,828	12,913	23,741
1923	22	5,173	5,409	4,712	4,425	12,164	11,786	23,940
1921	22	5,802	6,233	4,539	4,280	17,034	13,240	30,274
1919	21	5,123	4,866	5,726	3,060	11,643	8,853	18,466
1914	20	4,542	2,811	3,800	1,758	7,354	5,202	12,556
1909	26	4,174	2,113	3,631	1,390	4,599	4,599	11,353
1904	23	3,361	1,279	3,185	1,101	2,362	3,285	5,847
1899	22	2,113	700	2,047	613	2,585	3,421	6,006

See footnotes at end of table.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS—Continued

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year) ⁴	Salaries and wages, total	Number (average for the year) ⁵	Wages, total			
Candles:								
1947	54	2,405	\$5,596	1,933	\$3,704	\$8,911	\$8,995	\$17,906
1939	28	1,188	1,752	840	817	2,991	3,238	6,329
1937	22	903	1,194	725	686	2,728	2,624	5,352
1935	23	900	1,076	713	599	2,334	2,400	4,734
1933	19	811	746	673	561	2,284	1,844	4,128
1931	23	n.a.	n.a.	713	711	2,915	2,481	5,396
1929	20	937	1,425	781	923	3,435	3,251	6,686
1927	17	921	1,404	709	761	3,392	2,959	6,351
1925	20	827	1,207	626	673	2,328	2,788	5,114
1923	21	889	1,081	746	754	2,687	2,393	5,080
1921	20	707	848	609	590	1,686	2,091	3,777
1919	19	653	725	541	438	1,172	2,170	3,361
1914	15	478	356	387	183	612	1,119	1,731
1909	16	642	408	639	246	955	2,176	3,131
1904	17	905	428	816	294	978	2,011	3,889
Fireworks and pyrotechnics:								
1947	73	3,251	6,894	2,982	5,706	8,826	6,593	15,219
1939	59	1,394	1,512	1,158	987	2,775	1,853	4,628
1937	46	n.a.	n.a.	1,451	1,201	3,302	2,064	5,366
Jewelry and instrument cases:								
1947	165	7,383	16,446	6,651	13,280	26,460	18,652	45,112
1939	124	n.a.	n.a.	4,099	3,810	8,318	6,369	13,687
Lamp shades:								
1947	291	4,488	8,473	4,100	7,043	14,668	12,831	27,499
1939	128	3,105	2,474	2,671	1,715	3,991	4,385	8,376
1937	121	n.a.	n.a.	2,819	1,821	4,050	4,182	8,242
Morticians' goods:								
1947	568	22,375	60,002	18,242	42,388	92,395	96,434	188,829
1939	599	16,615	23,007	12,447	13,392	36,491	31,862	70,353
1937	521	16,093	20,949	13,678	15,120	38,129	33,628	71,757
1935	548	16,126	19,534	13,779	13,817	36,174	29,479	65,653
1933	396	13,857	14,948	12,155	11,837	33,066	25,674	58,740
1931	399	n.a.	n.a.	11,932	14,225	41,291	28,519	69,810
1929	414	15,206	22,887	13,033	16,411	48,932	39,350	85,282
1927	340	13,709	20,070	11,665	14,421	41,564	33,327	74,891
1925	326	13,385	19,052	11,479	14,057	37,642	32,771	70,413
1923	327	13,732	18,576	11,593	13,334	34,017	31,541	65,558
1921	314	11,799	15,066	9,956	10,586	27,779	27,017	54,796
1919	351	14,321	17,282	11,890	11,451	32,782	31,595	64,377
1914	287	11,332	7,894	9,468	5,382	13,068	13,257	26,325
1909	284	11,287	7,044	9,339	4,633	12,582	11,964	24,526
1904	239	9,629	5,465	8,468	4,120	10,765	9,501	20,266
1899	217	7,788	4,101	6,840	3,077	7,007	6,945	13,952

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

² Figures for years prior to 1935 do not include cost of contract work.

³ For 1947 and 1929, value of products shipped; for all other years, value of products made. See GENERAL EXPLANATIONS—Value of products shipped.

⁴ "Plastics products, n.e.c.," was formerly included in the discontinued classification, "Synthetic-resin, cellulose-plastic, vulcanized fiber, and molded and pressed pulp fabricated articles, n.e.c." Separate figures for years prior to 1937 are, therefore, not available.

⁵ For "Cork products," the 1947 figures are not strictly comparable with the figures for previous years because of a change in the classification of cork gaskets and in the primary product of several large firms (see text on industry).

⁶ Due to the inclusion of excise taxes in both the cost of materials and value of products for 1937 and 1935, the statistics for these years are not strictly comparable with the statistics for other years.

⁷ In 1899 "Candles" was included with "Soap and glycerin." Separate figures for the former industry are not available for 1899.

⁸ The figures prior to 1937 include data for safety fuses and, therefore, are not sufficiently comparable with the figures for later years to be shown in this table.

⁹ Returns for 1939 have been retabulated to provide figures comparable with those for 1947. No comparable figures are available for prior years.

¹⁰ "Lamp shades" was formerly classified in the discontinued industry, "Miscellaneous articles, n.e.c." Figures for years prior to 1937 are, therefore, not available.

¹¹ The figures for 1925 and prior years do not include data for metal burial vaults, whereas the figures for later years include data for this product.

CENSUS OF MANUFACTURES: 1947.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947

[Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS]

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Plastics products, n.e.c., total 1	1,360	60,092	\$159,024	51,512	106,373	\$123,583	\$289,594	\$213,455	\$503,049	\$27,042
New England	180	13,525	34,743	11,833	23,572	25,792	51,014	45,718	96,732	4,216
Massachusetts	108	7,839	19,395	6,514	13,812	14,070	28,409	28,129	56,538	1,911
Rhode Island	14	432	861	368	736	639	1,720	1,442	3,162	169
Connecticut	50	4,606	13,104	3,922	8,011	10,070	19,301	13,135	32,436	1,734
Middle Atlantic	519	18,951	51,197	16,189	32,869	39,682	89,338	62,191	151,529	7,558
New York	324	8,246	21,934	7,009	13,795	16,640	39,622	23,315	62,937	2,027
New Jersey	115	6,015	16,598	5,163	10,337	13,184	28,257	20,323	48,580	3,866
Pennsylvania	80	4,690	12,665	4,017	8,737	9,858	21,459	18,553	40,012	1,665
North Central	402	22,270	59,151	19,428	40,379	47,573	124,858	84,285	209,143	12,653
Ohio	79	6,637	17,650	5,507	11,699	13,200	27,140	25,566	52,706	4,550
Indiana	26	2,421	6,011	2,108	4,248	4,965	9,839	6,526	16,365	874
Illinois	158	6,695	18,556	5,835	12,313	14,678	32,205	23,910	56,115	2,515
Michigan	49	1,398	3,649	1,169	2,308	2,601	6,485	4,738	11,223	573
Missouri	32	437	1,083	381	793	869	1,844	1,344	3,188	101
South Atlantic	34	1,961	4,499	1,719	3,700	3,433	7,956	8,651	16,607	880
Maryland	10	925	2,403	801	1,806	1,683	4,347	5,714	10,061	502
East South Central	12	165	270	135	210	189	431	420	851	(d)
Kentucky	9	141	229	116	176	165	370	363	733	43
West South Central	22	287	958	250	643	684	1,642	1,282	2,924	158
Texas	17	264	910	230	596	651	1,568	1,228	2,786	151
Mountain	18	148	259	130	250	213	346	187	533	(d)
Colorado	10	124	224	109	211	183	261	107	368	(d)
Pacific	173	2,785	7,947	2,328	4,750	6,017	14,009	10,721	24,730	1,417
California	159	2,721	7,809	2,267	4,631	5,883	13,815	10,624	24,439	1,406
Brooms and brushes, total 1	706	18,551	44,875	15,543	30,617	31,162	87,288	92,523	179,811	4,715
New England	69	3,302	8,623	2,705	5,274	6,131	17,257	17,354	34,611	1,296
Vermont	5	114	247	103	215	199	406	474	880	11
Massachusetts	41	2,175	5,383	1,734	3,296	3,662	12,301	9,146	21,447	775
Middle Atlantic	199	6,391	15,923	5,420	10,916	11,169	31,439	33,729	65,168	1,875
New York	117	4,442	10,804	3,831	7,497	7,610	21,518	23,464	44,982	1,434
New Jersey	38	1,209	3,556	1,027	2,164	2,492	6,875	6,762	13,637	357
Pennsylvania	44	680	1,563	562	1,255	1,067	3,046	3,503	6,549	94
East North Central	139	4,161	10,566	3,319	6,274	6,660	19,840	22,311	42,151	867
Ohio	33	1,659	4,859	1,219	2,389	2,771	6,735	8,501	15,236	334
Indiana	12	645	1,055	474	826	876	3,058	3,695	6,753	61
Illinois	56	1,505	3,501	1,253	2,279	2,231	7,725	8,130	15,855	331
West North Central	67	1,106	2,238	958	1,849	1,597	4,229	3,664	7,893	84
Minnesota	12	343	830	294	536	577	2,060	1,568	3,628	25
Nebraska	11	377	682	348	689	530	877	1,016	1,893	29
South	173	2,761	5,486	2,424	4,876	4,155	10,993	11,269	22,262	399
Maryland	17	1,276	3,123	1,047	2,224	2,089	6,256	5,755	12,011	217
Texas	43	339	586	309	594	515	1,774	1,250	3,024	31
Mountain	10	176	319	155	313	243	474	693	1,187	
Pacific	49	654	1,720	562	1,115	1,207	3,056	3,503	6,559	194
California	35	459	1,191	386	766	830	2,134	2,394	4,528	162
Cork products, total 1	36	2,485	6,802	2,150	4,562	5,427	11,657	18,420	30,077	985
New York	16	498	1,131	437	895	805	1,383	1,857	3,240	36
New Jersey	9	1,262	3,843	1,085	2,435	3,147	6,434	10,289	16,723	675
Matches, total 1	29	7,350	16,422	6,612	13,724	13,406	31,302	25,355	56,657	2,748
Northeast	9	2,288	5,345	2,066	4,474	4,417	9,994	7,962	17,856	1,090
New York	3	1,154	2,809	1,022	2,339	2,188	5,381	4,097	9,478	(d)
East North Central	10	3,372	7,793	2,964	5,964	6,138	15,560	11,837	27,397	1,053
West North Central	4	1,020	1,934	961	1,980	1,677	3,779	2,906	6,685	261
South and West	6	670	1,350	621	1,306	1,174	1,969	2,650	4,619	344
Candles, total 1	54	2,405	5,596	1,933	3,972	3,704	8,911	8,995	17,906	1,299
New England	4	94	126	82	122	92	285	157	442	6
Middle Atlantic	26	2,028	4,883	1,621	3,408	3,215	7,826	7,813	15,639	1,246
New York	21	1,670	4,077	1,331	2,809	2,671	6,519	6,572	13,091	(d)
Other Divisions	24	283	587	230	442	397	800	1,025	1,825	48
Fireworks and pyrotechnics, total 1	73	3,251	6,694	2,982	5,954	5,706	8,626	6,593	15,219	649
Northeast and North Central	54	2,695	5,811	2,452	4,928	4,936	7,194	5,317	12,511	599
New Jersey	7	379	898	351	692	811	1,525	1,017	2,542	
Pennsylvania	9	393	809	335	685	599	1,083	907	2,080	(d)
Ohio	10	944	1,896	859	1,737	1,557	2,259	943	2,202	181
Illinois	8	248	645	201	399	395	779	798	1,577	223
South Atlantic	12	407	590	384	747	491	976	796	1,772	36
West South Central	3	29	43	28	34	41	70	118	185	6
Pacific	4	120	250	118	245	238	386	362	748	9

See footnotes at end of table.

FABRICATED PLASTICS PRODUCTS, NOT ELSEWHERE CLASSIFIED

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TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947—Continued

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Jewelry and instrument cases, total¹	165	7,383	\$16,446	6,681	13,603	\$13,286	\$26,460	\$18,652	\$45,112	\$764
New England	33	3,390	7,430	3,118	6,335	6,289	11,597	8,176	19,773	463
Massachusetts	16	1,882	3,932	1,779	3,624	3,456	6,319	4,220	10,539	264
Middle Atlantic	100	2,895	6,646	2,612	5,304	5,129	10,711	7,828	18,539	209
New York	82	2,191	5,031	2,011	4,117	4,008	8,531	5,828	14,359	187
North Central	24	1,077	2,334	930	1,924	1,826	4,067	2,581	6,668	92
Illinois	12	694	1,430	590	1,240	1,138	2,599	1,511	4,110	69
South and West	8	21	36	21	40	36	65	67	132	
Lamp shades, total¹	291	4,488	8,473	4,100	8,275	7,043	14,668	12,831	27,499	327
New England	12	289	603	262	532	520	1,035	559	1,564	49
Middle Atlantic	188	2,708	5,042	2,482	4,987	4,132	9,049	7,767	16,816	202
New York	148	1,463	2,882	1,337	2,703	2,363	4,842	3,946	8,868	18
New Jersey	16	343	613	308	595	441	1,030	1,125	2,155	23
Pennsylvania	26	902	1,547	837	1,689	1,328	3,077	2,696	5,773	161
East North Central	51	1,205	2,380	1,087	2,256	1,993	3,791	3,972	7,763	64
Illinois	42	931	1,849	841	1,704	1,558	3,084	3,428	6,492	38
West North Central	6	24	34	24	44	34	56	41	97	
South and West	34	262	414	245	456	364	767	492	1,259	12
California	29	239	389	222	413	339	729	468	1,197	12
Morticians' goods, total¹	568	22,375	60,002	18,242	38,987	42,388	92,395	96,434	188,829	3,441
New England	35	1,035	2,707	798	1,784	1,762	4,640	3,374	8,014	114
Massachusetts	18	627	1,744	501	1,089	1,176	2,964	2,091	5,055	72
Connecticut	5	159	448	100	248	223	998	598	1,596	18
Middle Atlantic	88	4,324	12,045	3,718	8,114	9,525	22,364	22,623	44,987	726
New York	45	1,968	5,696	1,668	3,643	4,445	9,350	12,483	21,833	272
New Jersey	8	133	357	110	225	290	956	483	1,439	11
Pennsylvania	35	2,223	5,992	1,940	4,246	4,790	12,058	9,657	21,715	442
East North Central	170	9,378	26,997	7,233	15,090	17,989	37,971	38,525	76,496	1,294
Ohio	57	5,401	15,788	3,976	8,104	10,315	19,748	21,681	41,429	732
Indiana	29	1,224	2,964	1,037	2,236	2,123	5,157	4,785	9,942	275
Illinois	45	1,730	5,330	1,379	2,942	3,610	8,453	6,964	15,437	222
Michigan	25	642	1,831	531	1,143	1,292	2,854	3,233	6,087	113
Wisconsin	14	381	1,084	310	665	649	1,759	1,842	3,601	52
West North Central	64	2,496	6,358	2,105	4,527	4,575	8,931	9,971	18,902	424
Iowa	11	267	799	219	502	514	1,183	1,157	2,340	18
Missouri	32	1,651	4,119	1,408	2,927	3,007	4,872	6,798	11,670	261
South Atlantic	55	1,570	3,329	1,342	2,904	2,303	4,676	6,057	10,733	122
Maryland	5	173	446	136	323	322	759	789	1,548	9
Virginia	11	182	432	158	341	279	661	816	1,477	32
North Carolina	12	412	795	357	740	522	1,078	1,322	2,490	39
Florida	8	152	359	124	275	218	528	847	1,375	14
East South Central	45	1,128	2,091	982	2,134	1,544	2,770	4,019	6,789	210
Kentucky	10	216	443	184	421	318	695	487	1,182	33
Tennessee	20	542	1,027	474	1,016	772	1,360	2,081	3,441	121
Alabama	11	316	525	276	584	376	640	1,189	1,829	48
West South Central	48	1,223	2,664	1,015	2,197	1,743	4,885	4,769	9,654	229
Arkansas	7	214	443	183	374	282	643	1,026	1,669	18
Texas	29	722	1,582	589	1,268	1,020	3,166	2,685	5,901	188
Mountain	9	110	295	95	199	219	503	684	1,187	12
Pacific	54	1,105	3,516	954	2,038	2,728	5,655	6,412	12,067	210
California	41	740	2,405	629	1,352	1,780	4,074	4,531	8,605	187

^d Withheld to avoid disclosing figures for individual companies.

¹ For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.

Plastics products, n.e.c.: *New England*, Maine, 2; *New Hampshire*, 3; *Vermont*, 3 (529); *North Central*, Wisconsin, 27 (900); *Minnesota*, 24 (3,640); *Iowa*, 2; *Nebraska*, 3 (111); *Kansas*, 2; *South Atlantic*, Delaware, 3 (755); *District of Columbia*, 1; *Virginia*, 2; *West Virginia*, 1; *North Carolina*, 2; *South Carolina*, 2; *Georgia*, 5 (28); *Florida*, 7 (26); *East South Central*, Tennessee, 3; *West South Central*, Louisiana, 1; *Oklahoma*, 4; *Mountain*, Wyoming, 1; *Arizona*, 2; *Utah*, 5 (13); *Pacific*, Washington, 10 (46); *Oregon*, 4 (18).

Brooms and brushes: *New England*, Maine, 3 (10); *New Hampshire*, 5 (197); *Rhode Island*, 8 (78); *Connecticut*, 7 (728); *East North Central*, Michigan, 20 (164); *Wisconsin*, 18 (288); *West North Central*, Iowa, 15 (758); *Missouri*, 20 (165); *Kansas*, 9 (80); *South*, Delaware, 3 (39); *Virginia*, 3 (52); *West Virginia*, 3 (14); *North Carolina*, 19 (174); *South Carolina*, 3 (23); *Georgia*, 13 (179); *Florida*, 9 (67); *Kentucky*, 8 (98); *Tennessee*, 10 (173); *Alabama*, 7 (93); *Mississippi*, 7 (53); *Arkansas*, 9 (59); *Louisiana*, 12 (84); *Oklahoma*, 7 (38); *Mountain*, Montana, 1; *Colorado*, 6 (156); *New Mexico*, 1; *Arizona*, 2; *Pacific*, Washington, 6 (70); *Oregon*, 8 (125).

Cork products: Massachusetts, 2; Pennsylvania, 4 (384); Illinois, 1; Michigan, 1; Wisconsin, 1; Delaware, 1; California, 1.

Matches: *Northeast*, Maine, 1; *New Hampshire*, 1; *Massachusetts*, 1; *New Jersey*, 2; *Pennsylvania*, 1; *East North Central*, Ohio, 5 (2,334); *Illinois*, 4; *Wisconsin*, 1; *West North Central*, Minnesota, 2; *Missouri*, 2; *South and West*, Maryland, 1; *West Virginia*, 1; *Washington*, 1; *California*, 3 (306).

Candles: *New England*, Massachusetts, 3; *Connecticut*, 1; *Middle Atlantic*, New Jersey, 3; *Pennsylvania*, 2; *Other Divisions*, Ohio, 3 (154); *Illinois*, 2; *Wisconsin*, 2; *Minnesota*, 1; *Maryland*, 1; *Texas*, 6 (41); *New Mexico*, 1; *California*, 8 (57).

Fireworks and pyrotechnics: *Northeast and North Central*, Massachusetts, 4 (394); *Rhode Island*, 1; *Connecticut*, 4; *New York*, 4 (17); *Indiana*, 3; *Iowa*, 1; *Missouri*, 1; *South Dakota*, 1; *Nebraska*, 1; *South Atlantic*, Maryland, 6 (330); *Virginia*, 1; *West Virginia*, 1; *North Carolina*, 2; *South Carolina*, 1; *Florida*, 1; *West South Central*, Arkansas, 1; *Texas*, 2; *Pacific*, Washington, 1; *California*, 3.

Jewelry and instrument cases: *New England*, Rhode Island, 8 (157); *Connecticut*, 9 (1,351); *Middle Atlantic*, New Jersey, 15 (548); *Pennsylvania*, 3 (156); *North Central*, Ohio, 2; *Indiana*, 3 (63); *Michigan*, 2; *Wisconsin*, 4 (26); *Minnesota*, 1; *South and West*, Maryland, 1; *Tennessee*, 1; *California*, 6.

Lamp shades: *New England*, Massachusetts, 6 (41); *Connecticut*, 6 (248); *East North Central*, Ohio, 4 (127); *Indiana*, 2; *Michigan*, 3; *West North Central*, Minnesota, 4; *Missouri*, 1; *Kansas*, 1; *South and West*, Maryland, 1; *Georgia*, 1; *Texas*, 1; *Colorado*, 1; *Utah*, 1.

Morticians' goods: *New England*, Maine, 5; *New Hampshire*, 5 (125); *Rhode Island*, 2; *West North Central*, Minnesota, 9 (222); *North Dakota*, 1; *South Dakota*, 1; *Nebraska*, 5 (249); *Kansas*, 5; *South Atlantic*, District of Columbia, 1; *Virginia*, 2; *South Carolina*, 4 (281); *Georgia*, 12 (309); *East South Central*, Mississippi, 4 (54); *West South Central*, Louisiana, 8 (216); *Oklahoma*, 4 (71); *Mountain*, Montana, 1; *Colorado*, 4 (64); *Arizona*, 1; *Utah*, 3; *Pacific*, Washington, 9 (175); *Oregon*, 4 (160).

CENSUS OF MANUFACTURES: 1947

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS]

ITEM	Industry								
	Plastics products, n.e.c.	Brooms and brushes	Cork products	Matches	Candles	Fireworks and pyrotechnics	Jewelry and instrument cases	Lamp shades	Morticians' goods
ALL ESTABLISHMENTS	1,360	706	36	29	54	73	165	291	508
Number of establishments	1,360	706	36	29	54	73	165	291	508
All employees:	60,092	18,551	2,485	7,350	2,405	3,251	7,383	4,488	22,375
Number (average for the year)	\$159,024	\$44,875	\$6,802	\$16,422	\$5,596	\$6,694	\$16,446	\$8,473	\$60,002
Salaries and wages, total	51,512	15,543	2,150	6,612	1,933	2,982	6,681	4,100	18,242
Production and related workers:	105,373	30,617	4,562	13,724	3,972	5,954	13,603	8,275	38,087
Number (average for the year)	thousands	thousands	thousands	thousands	thousands	thousands	thousands	thousands	thousands
Man-hours, total	\$123,583	\$31,162	\$5,427	\$13,406	\$3,704	\$5,706	\$13,280	\$7,043	\$42,388
Wages, total	\$289,594	\$87,288	\$11,657	\$31,302	\$8,911	\$8,626	\$26,460	\$14,668	\$62,395
Value added by manufacture									
ESTABLISHMENTS REPORTING DETAILED STATISTICS	888	474	36	29	54	73	87	154	482
Number of establishments	888	474	36	29	54	73	87	154	482
All employees:	57,881	17,672	2,485	7,350	2,405	3,251	6,995	3,731	21,084
Number (average for the year)	\$154,600	\$43,447	\$6,802	\$16,422	\$5,596	\$6,694	\$15,715	\$7,261	\$59,202
Salaries and wages, total	49,362	14,683	2,150	6,612	1,933	2,982	6,297	3,373	17,860
Production and related workers:	102,088	28,901	4,562	13,724	3,972	5,954	12,835	6,820	38,235
Number (average for the year)	thousands	thousands	thousands	thousands	thousands	thousands	thousands	thousands	thousands
Man-hours, total	\$119,404	\$29,811	\$5,427	\$13,406	\$3,704	\$5,706	\$12,551	\$5,904	\$41,601
Wages, total	\$282,118	\$84,432	\$11,657	\$31,302	\$8,911	\$8,626	\$25,112	\$12,681	\$61,076
Value added by manufacture									
Number of employees for pay period ended nearest Oct. 15:	59,918	17,391	2,424	7,273	2,469	3,316	6,698	4,542	22,642
All employees:	37,876	10,561	1,848	4,006	1,247	1,883	3,002	1,966	16,194
Male	22,042	6,830	578	3,267	1,222	1,433	3,096	3,676	4,448
Female	14,323	2,093	6,472	1,955	3,019	5,976	4,155	18,510	15,119
Production and related workers:	32,348	8,729	1,619	3,515	934	1,693	2,586	795	3,391
Male	18,824	5,594	474	2,957	1,021	1,326	3,390	3,360	32
Female	8	5				35			4,100
Force-account construction workers	8,742	3,063	331	801	614	262	722	387	3,043
Administrative, supervisory, sales, and all other	5,524	1,827	229	491	313	155	416	171	1,057
Male	3,218	1,236	102	310	201	107	308	216	
Female									
All employees, number by month:	59,754	19,209	2,889	8,121	2,667	3,376	7,635	3,340	20,700
January	59,388	19,196	2,869	7,913	2,625	3,263	7,668	3,418	21,099
February	59,362	18,885	2,674	7,812	2,588	3,263	7,552	3,671	21,711
March	58,286	18,402	2,506	7,285	2,477	3,378	7,328	3,278	22,162
April	56,698	17,721	2,492	7,220	2,295	3,521	6,995	2,990	20,831
May	54,247	16,763	2,362	7,019	2,214	3,388	6,563	3,079	21,475
June	53,224	16,041	2,072	6,647	2,152	2,788	6,278	3,264	21,937
July	56,287	16,216	2,248	6,910	2,212	2,955	6,410	3,717	22,310
August	57,115	16,814	2,320	7,065	2,385	3,099	6,610	4,118	22,023
September	59,918	17,391	2,424	7,273	2,469	3,316	6,698	4,542	22,642
October	60,840	17,744	2,454	7,406	2,427	3,306	7,025	4,808	22,822
November	59,814	17,480	2,490	7,512	2,356	3,283	7,117	4,564	23,180
December									
Cost of materials, fuel, electricity, and contract work	\$206,544	\$89,082	\$18,420	\$25,355	\$8,995	\$6,593	\$17,003	\$11,038	\$64,820
Materials, parts, containers, and supplies	194,572	87,790	17,535	24,485	8,801	6,350	17,050	10,892	62,001
Fuels, total	3,642	370	551	694	131	154	140	30	874
Bituminous coal	1,119	142	119	630	68	75	62	2	530
Anthracite	383	20	1			7	1		68
Coke	1,867	110	404	22	67	49	55	0	123
Fuel oil	241	49	26	4	6	15	11	27	134
Gas	32	45	1	38			11	1	26
Other fuels	4,615	548	253	175	63	86	214	90	691
Purchased electric energy	3,715	356	81	1		3	250	38	54
Contract and commission work									
Value of inventories:	\$64,390	\$35,271	\$4,753	\$6,782	\$3,038	\$3,348	\$4,862	\$1,735	\$27,858
Beginning of year, total	14,658	10,002	1,941	1,494	1,307	1,155	918	309	4,893
Finished products	49,732	25,269	2,812	5,288	1,731	2,193	3,944	1,339	22,965
Materials, supplies, and work in process	68,318	38,337	5,160	11,398	3,295	4,457	3,395	1,381	35,771
End of year, total	16,096	13,333	2,216	4,018	1,587	1,560	994	422	6,604
Finished products	52,222	25,004	2,944	7,380	1,708	2,897	2,401	1,400	20,167
Materials, supplies, and work in process									
Expenditures for plant and equipment:	\$27,042	\$4,715	\$986	\$2,748	\$1,200	\$649	\$764	\$327	\$3,441
New plant and equipment	7,691	1,490	266	989	671	240	133	150	1,045
Construction and major alteration of fixed plants	7,248	1,369	259	868	659	223	114	127	924
Buildings	443	121	7	121	12	17	19	23	121
Other construction	19,351	3,225	720	1,759	628	409	631	177	2,396
Machinery and equipment	18,035	2,629	684	1,708	579	374	515	137	1,768
Production machinery and equipment	1,316	596	36	51	49	35	116	40	680
Other machinery and equipment	2,206	453	163	12	46	18	54	51	278
Used plant and equipment, and land									
Number of highway-type motor vehicles owned or leased:	305	222	24	22	22	103	51	14	633
Trucks	305	222	24	22	22	103	51	14	633
By manufacturer's rated capacity:									
Under 1½ tons	139	129	6	4	7	41	14	7	226
1½ tons	118	72	12	14	6	35	17	4	338
Over 1½ tons and less than 3½ tons	36	17		3	6	21	18	1	53
3½ tons and less than 5 tons	9	1	2	1	2	2	1	1	12
5 tons and over	5	3		1	2	4	1	1	4
By body type:									
Van	23	29	2		9	17	17	2	26
Stake or platform	114	69	9		2	42	16	3	486
Panel or light delivery	114	91	7		9	25	15	3	86
All other trucks	54	33	6		2	19	3	6	36
Truck tractors	8	3	8			6			27
Trailers and semitrailers	8	3	15		3	11			37

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947—
Continued

CANDLES INDUSTRY	Shipped by—			JEWELRY AND INSTRUMENT CASES INDUSTRY	Shipped by—		
	Candles industry	Other industries	All industries		Jewelry and instrument cases industry	Other industries	All industries
Total shipments by the industry	\$17,906			\$45,112			
A. Candles.....	16,232	\$2,434	\$18,666	37,132	\$8,024	\$45,156	
B. Secondary products.....	1,674			7,710			
C. Miscellaneous receipts.....				270			

FIREWORKS AND PYROTECHNICS INDUSTRY	Shipped by—			MORTICIANS' GOODS INDUSTRY	Shipped by—		
	Fireworks and pyrotechnics industry	Other industries	All industries		Morticians' goods industry	Other industries	All industries
Total shipments by the industry	\$15,219			\$188,829			
A. Fireworks and pyrotechnics.....	14,651	\$690	\$15,331	167,336	\$5,728	\$173,064	
B. Secondary products.....	480			67,165		67,165	
C. Miscellaneous receipts.....	88			(d)	(d)	67,975	

LAMP SHADES INDUSTRY	Shipped by—			MORTICIANS' GOODS INDUSTRY	Shipped by—		
	Lamp shades industry	Other industries	All industries		Morticians' goods industry	Other industries	All industries
Total shipments by the industry	\$27,499			\$19,407			
A. Lamp shades.....	25,403	\$1,940	\$27,343	2,086		4,106	
B. Secondary products.....	2,049			1,810			
C. Miscellaneous receipts.....	47			276			

¹ Withheld to avoid disclosing figures for individual companies.

² Primarily specialty bags, synthetic fibers, and nonmetallic abrasives.

³ Primarily molded plastics products and wood handles.

⁴ Primarily cork discs made by closure manufacturers and shipped as such. Excludes the value of cork discs and washers fitted into closures in the same plant as produced.

⁵ Primarily cork gaskets.

⁶ Primarily stamped and pressed metal products.

⁷ Detail for individual products not shown to avoid disclosing figures for individual companies.

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	1947		1939	
	Total shipments and interplant transfers		Total production for sale and interplant transfer	
	Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Molded plastics products, except plastic caps		\$240,100		\$32,895
Compression molded, transfer molded, and cast.....		107,086		
Injection molded.....		99,560		
Cold molded.....		5,634		n.a.
Extrusion molded.....		26,506		
Not specified by process.....		1,314		
Laminated sheets, rods, and tubes.....		35,630		11,004
Fabricated plastics products, n.e.c.		183,501		n.a.
From thermosetting laminates.....		36,343		
From other laminates.....		7,025		9,643
From sheets, rods, and tubes, and from other semifabricated forms, except laminated and vulcanized fiber.....		131,515		n.a.
Plastic caps:		6,610		n.a.
For glass bottles and other glass containers.....		1,092		n.a.
Other, including caps for collapsible tubes.....		916		n.a.
Not specified by kind.....				
Plastics products, not specified by process or by kind.....		18,940		n.a.
Brooms, upright ¹	(M doz.)	24,385	(M doz.)	12,721
Household floor brooms.....		19,942		10,126
Made of broomcorn.....	2,327	18,574	2,642	9,009
Made of other materials.....	2,144	1,368	162	1,117
Other brooms (industrial, whisk, toy, hearth, etc.).....	183	3,737		2,595
Made of broomcorn.....		1,870		1,851
Made of other materials.....		1,867		744
Brooms, not specified by kind.....		706		n.a.
Paint and varnish brushes		54,556		12,747
Made of pure bristle.....		45,194		
Made of synthetic bristle.....	5,077	2,816		
Made of other materials, including mixtures.....	183	2,361	n.a.	n.a.
Not specified by kind.....	353	4,185		

See footnotes at end of table.

FABRICATED PLASTICS PRODUCTS, NOT ELSEWHERE CLASSIFIED

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TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939—Continued

PRODUCT	1947		1939	
	Total shipments and interplant transfers		Total production for sale and interplant transfer	
	Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Other brushes	(M doz.)	\$82,252	(M doz.)	\$38,743
Toilet brushes.....		36,058		13,502
Tooth brushes.....	5,498	9,525	n.a.	7,719
Shaving brushes.....	306	3,789	n.a.	1,040
(Other toilet brushes (hairbrushes, etc.).....)		22,744		4,743
Artists' brushes and hair pencils.....		4,540		4,710
Maintenance brushes, household and industrial.....		20,140		
Industrial brushes, other than maintenance.....		11,199		11,165
Power driven (rotary, end, cup, jewelers' and dentists' brushes, etc.).....		8,719		
Other.....		2,480		
Twisted-in-wire brushes.....		7,617		1,491
Other brushes, not specified by kind.....		2,698		3,875
Brooms and brushes, not specified by kind.....		7,106		n.a.
Cork products,⁶		35,111		17,029
Stoppers.....		4,737		3,194
Discs and washers ⁷		5,709		1,901
Insulation products (blocks, boards, pipe covering, cork tile, cork lags, etc.).....		18,648		6,401
Sheets and blocks of cork composition.....		1,124		(¹⁰)
Other articles made of natural cork.....		1,817		1,999
Other articles made of composition cork.....		688		1,933
Cork products, not elsewhere classified or specified by kind ¹¹		2,328		1,601
Matches	(Mil. matches)	56,386	(Mil. matches)	25,536
In boxes of over 100 matches.....	486,438	19,119	419,707	9,500
20 cubic inches boxes.....	182,343	10,563	179,914	n.a.
16 cubic inches boxes.....	100,250	8,556	n.a.	n.a.
In boxes of not over 100 matches.....	82,093	10,360	86,581	6,177
Strike anywhere.....	80,014	3,252	52,720	3,007
Strike on box.....	25,191	7,108	33,861	3,170
In books, and other.....	54,823	26,907	153,212	9,859
234,061				
Candles		18,666		6,624
Fireworks and pyrotechnics.....		15,331		4,553
Jewelry and instrument cases.....		45,156		n.a.
Lamp shades.....		27,343		(¹²)
Wood caskets and coffins	(M caskets)	67,165	(M caskets)	31,720
Cloth covered.....	876	43,360	713	19,917
Natural finish-lined.....	192	21,101	447	11,803
Natural finish-unlined.....	15	761		n.a.
Wood caskets and coffins, not specified by kind.....	n.a.	1,943		n.a.
Metal caskets and coffins		67,975	11,337	20,345
Finished, trimmed, and lined.....	357	58,667		
Finished and trimmed, but unlined.....	39	3,666	n.a.	n.a.
Shells only (raw or primed).....	12,252	5,642		
Other caskets, boxes, vaults, and morticians' supplies		33,818		15,998
Other caskets and coffins (masonite, molded plastic, etc.).....	12	1,664	n.a.	123
Wooden outer burial boxes.....	302	3,521	18,430	2,669
Metal burial vaults (12 gauge metal or heavier).....	92	4,852	17,161	6,122
Inner liners sold as such.....	272	3,136	n.a.	671
Embalming chemicals, burial garments, and morticians' equipment and supplies.....		11,337		6,403
Other products of the industry (wood and metal shipping cases, etc.).....		9,268		(¹³)
Morticians' goods, not specified by kind		19,4106		n.a.

n.a.—Not available.

¹ The detailed 1939 data for plastics products are not directly comparable with the 1947 product figures. There were \$76,116,000 worth of plastics products produced for sale in 1939. Of this total, \$22,574,000 could not be distributed according to the 1947 classifications and the 1939 figure for molded products is understated by an undetermined amount.

² Excludes the value of brooms made in institutions for the blind, which amounted to slightly more than \$1 million in 1939. No comparable data were collected for 1947.

³ Includes \$400,000 worth of brooms made of broomcorn mixed with other materials.

⁴ Excludes hair pencils.

⁵ In 1939, separate data were obtained for household and industrial brushes, but without indication as to whether they were maintenance brushes. The statistics for 1939 are not directly comparable with the separate maintenance-brush and nonmaintenance industrial brush categories listed for 1947, and are, therefore, shown in total only.

⁶ Includes the value of hair pencils.

⁷ Includes total shipments (\$6.3 million) of 232 small establishments, classified in the "Brooms and brushes" industry, for which no detailed breakdown of shipments was obtained.

⁸ Excludes cork gaskets and cork linoleum products, which are classified in other industries. Data for cork gaskets were included in the published 1939 statistics, combined with cork discs and washers, but have been excluded from this table to conform to the 1947 data.

⁹ Excludes the value of cork discs and washers produced and fitted into crowns and other closures in the same plant. A total of approximately 320 million gross crowns were shipped by manufacturers in 1947.

¹⁰ Not available; probably included in the \$1.9 million worth of "Other articles made of composition cork" for 1939.

¹¹ Primarily shredded and granulated cork.

¹² Includes a small unspecified amount of miners' squibs. For 1947 data on squibs, see "Explosives" industry.

¹³ Statistics on the total production of lamp shades were not collected in 1939.

¹⁴ Includes data for some shipping cases not separately reported. Metal caskets and coffins data for 1939 also include approximately 5,400 metal cloth-covered caskets and coffins with a value of about \$364,000.

¹⁵ Estimated in part.

¹⁶ Includes data for wooden shipping cases.

¹⁷ Includes data for metal shipping cases.

¹⁸ Data for wood and metal shipping cases included in figures for wooden outer burial boxes, metal burial vaults, and to some extent, caskets and coffins.

¹⁹ Includes total shipments (\$2.9 million) of 86 small establishments, classified in the "Morticians' goods" industry, for which no detailed breakdown of shipments was obtained.

SIGNS AND ADVERTISING DISPLAYS AND OTHER MISCELLANEOUS MANUFACTURED PRODUCTS

This report shows 1947 Census of Manufactures statistics for establishments engaged primarily in the production of beauty shop and barber shop equipment, furs, signs and advertising displays, hair work, umbrellas, tobacco pipes, soda-fountain and beer-dispensing equipment, models and patterns, small arms, small arms ammunition, and miscellaneous fabricated products, not elsewhere classified. These establishments have been classified in 11 industries, described separately below.

Beauty and Barber Shop Equipment (*Full Standard Industrial Classification title and number: Beauty Shop and Barber Shop Equipment, 3991.*)—This industry comprises establishments primarily engaged in manufacturing special furniture, devices, and equipment for use in beauty shops and barber shops.

Hair clippers for use on humans are included in this industry in the 1947 census although the Standard Industrial Classification places them in the Cutlery Industry. These hair clippers are primarily for use in beauty and barber shops and are produced mainly by establishments making other beauty and barber shop equipment or hair clippers only, but not other cutlery. The 1939 reports were retabulated to conform to the definition used in the 1947 census, and the 1939 data for the Beauty and Barber Shop Industry are, therefore, comparable with 1947.

The Beauty and Barber Shop Equipment Industry does not include all equipment used in beauty and barber shops. Much of the equipment used in these shops is classified in other industries, based upon the type of product. Hydraulic chairs and couch units are classified in the Beauty and Barber Shop Industry, but all other furniture used in beauty and barber shops is classified in the furniture industries. Likewise, cosmetics, soaps, permanent waving solutions, etc., are classified in the chemical industries.

Of the total value of \$23 million of the products classified in the Beauty and Barber Shop Equipment Industry, 21 percent was shipped by establishments classified in other industries. Establishments classified in the Beauty and Barber Shop Equipment Industry shipped \$19 million of beauty and barber shop equipment and \$13 million of other products such as hair preparations, furniture, etc., most of which was destined for use in beauty and barber shops.

Furs, Dressed and Dyed (*Standard Industrial Classification No. 3992.*)—This industry comprises establishments primarily engaged in scraping, currying, tanning, bleaching, and dyeing pelts.

Signs and Advertising Displays (*Standard Industrial Classification No. 3993.*)—This industry comprises establishments primarily engaged in manufacturing electrical, mechanical, cut-out, or plate signs and advertising displays, including neon signs and advertising novelties. Sign-painting shops doing business on a custom basis are classified in service industries. Establishments primarily engaged in manufacturing electric signal equipment are classified in Industry 3669, and lighting fixtures in Industry 3471.

The value of products shipped reported by establishments in this industry excluded receipts for advertising services, rental incomes, or installation or maintenance charges performed by a separate labor force not included in the regular

labor force of the manufacturing establishment. The luminous tubing and bulb signs classified in this industry may be either sold outright or rented. In reporting the value of rented or leased signs, respondents were instructed to estimate a value for those signs completed during 1947. The estimates approximated the value of the signs if sold outright, based upon cost of production or on the valuation placed on them for tax, insurance, or other purposes, but excluded income from the rental of the signs.

Only establishments whose primary activity was the manufacture of signs were included in the Census of Manufactures. That is, establishments whose principal activity was providing advertising service or the erection and maintenance of signs were not included. However, for some establishments which were engaged in both lines of activity but whose manufacturing operations were substantial, separate reports were obtained for the manufacturing portion of the business.

The data for advertising novelties are understated to some extent in that many establishments manufacturing products which are used as advertising novelties are classified on the basis of the product made and are in industries such as printing, pens and pencils, etc., rather than in Signs and Advertising Displays.

Hair Work (*Standard Industrial Classification No. 3994.*)—This industry comprises establishments primarily engaged in manufacturing wigs, toupees, transformations, switches, and related articles made largely from human hair, but in some cases from animal hair or various fibers. Establishments primarily engaged in making wigs for dolls are also included in this industry.

Umbrellas, Parasols, and Canes (*Standard Industrial Classification No. 3995.*)—This industry comprises establishments primarily engaged in manufacturing umbrellas, parasols, canes, and trimmings, frames, handles, and other parts. Shipments of umbrella parts (approximately \$8.3 million) are, for the most part, duplicated in the cost of materials and value of shipments of manufacturers of the assembled umbrellas.

Tobacco Pipes (*Full Standard Industrial Classification title and number: Tobacco Pipes and Cigarette Holders, 3996.*)—This industry comprises establishments primarily engaged in manufacturing tobacco pipes, and cigarette and cigar holders.

Soda-Fountain and Bar Equipment (*Full Standard Industrial Classification title and number: Soda-Fountain and Beer-Dispensing Equipment, 3997.*)—This industry comprises establishments primarily engaged in manufacturing soda fountains and beer-dispensing equipment; and tanks, siphons, and other parts and accessories for such equipment.

Of the total value of \$33 million of soda-fountain and beer-dispensing equipment, 24 percent was shipped by establishments classified in other industries. Establishments classified in the Soda-Fountain and Beer-Dispensing Equipment Industry shipped \$25 million of soda-fountain and beer-dispensing equipment and \$5 million of other products such as refrigeration equipment, etc.

Models and Patterns (Except Paper) (*Part of Standard Industrial Classification No. 3998.*)—This industry comprises establishments primarily engaged in manufacturing models, patterns, and forms of all materials, except paper patterns (Industry 2699), shoe display forms (Industry 2492), and patterns and molds for industrial uses—foundries, etc. (Industry 3559).

According to the Standard Industrial Classification, patterns and molds for industrial use—foundries, rubber and plastic-working plants, etc.—are included in this industry. However, the 1947 census includes such patterns and molds in Industry 3559 since their general nature and use are so closely related to industrial machinery. In fact, a large part of these products is made in "captive departments" of foundries and machinery establishments. In the 1939 census, establishments primarily engaged in manufacturing patterns and molds for industrial uses were classified in the Models and Patterns (Except Paper) Industry. The 1939 reports were retabulated so that the data shown for 1939 for the Models and Patterns Industry are comparable with those for 1947. However, no comparable data are available for earlier years.

Small Arms (*Standard Industrial Classification No. 1951.*)—This industry comprises establishments primarily engaged in manufacturing small firearms having a bore under 20 mm. (caliber .60 and under). Important products of this industry include machine guns and other automatic arms, rifles, carbines, pistols, revolvers, shotguns, pyrotechnic pistols and projectors, machine gun mounts, and parts for small firearms.

Small Arms Ammunition (*Standard Industrial Classification No. 1961.*)—This industry comprises establishments pri-

marily engaged in manufacturing ammunition for small arms having a bore under 20 mm. (caliber .60 and under). Establishments primarily engaged in manufacturing blasting and detonating caps and safety fuses are classified in Industry 2826, and fireworks in Industry 3985.

Miscellaneous Products, N.E.C. (*Full Standard Industrial Classification title and number: Miscellaneous Fabricated Products, Not Elsewhere Classified, 3999.*)—This industry comprises establishments primarily engaged in manufacturing portable fire extinguishers; theatrical scenery and advertising curtains; braided articles; holiday goods; military insignia; identification plates, badges, emblems, and tags; and many other small articles, not elsewhere classified. Establishments primarily engaged in wool pulling and in dressing hair and bristles are also included in this industry.

Fire extinguishers, which are included in this industry in 1947, were a separate industry in 1939. Likewise, wool pulling was a separate industry in 1939. In addition, some products were reclassified from Miscellaneous Products, N.E.C., to other industries for the 1947 census; e.g., buckles were reclassified to the Needles, Pins, and Fasteners Industry. The 1939 data shown for this industry have been retabulated on a basis comparable with 1947.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS
(Money figures in thousands of dollars. For explanation of column captions see GENERAL EXPLANATIONS)

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Beauty and barber shop equipment:								
1947	70	4,065	\$11,884	3,185	\$7,698	\$17,840	\$14,304	\$32,144
1939	71	n.a.	n.a.	1,779	1,714	6,349	4,898	11,247
Furs, dressed and dyed:								
1947	175	6,848	25,540	6,147	21,673	42,954	9,747	52,701
1939	136	n.a.	n.a.	4,956	8,875	17,018	4,015	21,033
1937	121	6,916	10,337	6,243	8,325	15,314	6,449	21,763
1935	167	7,027	9,602	6,434	7,561	14,697	6,643	23,340
1933	181	5,804	7,200	5,364	6,246	15,408	9,540	24,948
1931	243	n.a.	n.a.	5,160	7,968	21,652	16,221	37,873
1929	248	5,947	11,678	5,167	8,596	21,588	18,649	40,237
1927	172	6,358	13,169	5,549	10,361	20,609	7,072	27,681
1925	133	5,803	10,668	5,056	8,206	18,127	7,296	25,423
1923	162	6,030	10,657	5,203	8,381	18,225	7,242	25,467
1921	126	4,931	8,149	4,429	6,759	13,087	6,070	19,157
1919	141	5,552	8,603	5,075	7,098	14,046	6,329	20,365
1914	96	1,664	1,195	1,525	923	1,969	906	2,575
1914	93	1,357	941	1,241	806	1,580	811	2,291
1909	85	1,215	865	1,105	755	1,574	1,642	3,215
1904	92	881	527	835	478	880	520	1,469
1899								
Signs and advertising displays:								
1947	1,983	28,879	82,045	24,328	62,026	130,454	75,902	206,356
1939	1,386	23,370	35,675	17,206	20,557	55,132	32,439	87,625
1937	1,001	19,857	27,311	16,042	19,181	47,969	27,754	75,723
1935	1,075	17,702	22,612	13,712	14,932	39,442	21,920	61,362
1933	848	14,488	14,969	12,044	11,677	31,832	18,312	47,144
1931	1,078	n.a.	n.a.	14,463	18,485	53,384	21,297	74,681
1929	1,239	25,119	41,027	20,000	27,901	82,343	35,701	118,044
1927	813	21,470	34,456	16,907	24,044	67,599	30,892	98,481
1925	759	19,142	29,892	15,128	20,764	63,811	25,858	89,669
1923	648	15,960	22,335	12,968	16,429	44,583	22,641	67,224
1921	624	13,041	18,345	10,373	12,703	34,537	18,734	53,271
1919	779	14,208	16,347	10,432	9,715	27,271	16,072	43,343
1914	776	12,048	9,019	9,566	5,933	15,733	9,059	24,792
1914	288	7,066	4,581	5,540	3,105	8,837	4,709	13,546
1909								
Hair work:								
1947	87	1,170	2,436	1,046	2,040	4,280	3,771	8,151
1939	42	393	419	322	261	662	739	1,491
1937	34	n.a.	n.a.	325	295	813	851	1,664
1935	43	618	776	502	438	1,074	1,064	2,726
1933	37	271	264	228	188	680	306	986
1931	52	n.a.	n.a.	267	288	873	311	1,184
1929	59	445	617	359	432	1,156	538	1,694
1927	69	626	880	515	598	1,449	830	2,379
1925	85	1,020	1,325	864	975	3,044	3,046	6,090
1923	113	1,701	2,113	1,317	1,352	5,696	5,568	11,264
1921	128	1,524	1,853	1,222	1,256	4,218	6,734	10,652
1919	196	1,339	1,547	1,084	1,065	3,134	3,829	6,963
1914	205	1,429	843	1,193	561	1,806	1,529	2,326
1914	250	4,085	2,044	3,534	1,610	5,135	6,061	11,216
1909	125	989	433	863	335	1,054	728	1,732
1904	158	864	321	820	287	910	496	1,406
1899								

See footnotes at end of table.

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CENSUS OF MANUFACTURES: 1947

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS—Continued

INDUSTRY AND CENSUS YEAR	Number of establishments	All employees		Production and related workers		Value added by manufacture ¹	Cost of materials, fuel, electricity, and contract work ²	Value of products shipped ³
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Wages, total			
Umbrellas, parasols, and canes:								
1947	164	3,585	\$8,360	3,267	\$6,490	\$15,421	\$18,927	\$34,348
1939	90	3,236	3,055	2,852	2,183	4,651	6,869	11,520
1937	81	3,367	3,219	3,088	2,572	5,195	8,042	13,237
1935	83	2,432	2,267	2,186	1,712	3,927	6,159	10,086
1933	80	2,336	1,798	2,155	1,531	3,287	4,972	8,259
1931	93	n.a.	n.a.	1,852	1,611	3,979	5,138	9,115
1929	141	3,334	3,960	2,855	2,768	7,087	10,907	17,964
1927	164	3,922	4,717	3,308	3,411	9,135	14,021	23,156
1925	176	4,483	5,227	3,731	3,696	10,705	16,594	27,299
1923	187	4,492	5,233	3,776	3,739	10,395	18,000	28,365
1921	154	3,803	4,605	3,149	3,126	9,119	16,889	28,008
1919	198	3,941	4,775	3,388	3,140	9,676	16,633	26,309
1917	265	5,532	3,206	4,792	2,167	5,221	8,892	15,813
1914	256	6,206	3,168	5,472	2,253	5,808	10,056	16,884
1909	204	5,913	2,300	5,386	1,826	5,046	8,250	15,296
1904	202	6,227	2,373	5,640	1,869	5,288	8,381	13,669
1899								
Tobacco pipes:								
1947	76	3,140	8,810	2,745	6,302	13,738	5,587	19,325
1939	32	2,814	3,156	2,481	2,407	5,208	2,300	7,508
1937	25	2,569	2,818	2,382	2,413	5,124	2,623	7,647
1935	29	2,433	2,730	2,240	2,283	4,157	2,019	6,176
1933	22	1,431	1,273	1,362	1,145	2,314	960	3,274
1931	24	n.a.	n.a.	1,677	1,761	3,746	1,776	5,522
1929	24	1,937	2,580	1,680	1,961	3,809	1,749	5,568
1927	23	2,017	2,764	1,807	2,279	4,551	2,723	7,274
1925	28	2,261	3,045	1,970	2,291	4,581	2,718	7,299
1923	30	2,712	3,580	2,402	2,720	6,877	3,828	9,705
1921	36	2,038	2,601	1,765	1,937	4,298	2,826	7,124
1919	56	2,848	3,549	2,539	2,555	8,057	3,497	11,554
1917	47	2,493	1,375	2,354	1,188	1,912	2,308	4,220
1914	62	3,020	1,538	2,775	1,255	2,853	2,459	5,312
1909	68	2,029	911	1,947	831	1,480	1,354	2,834
1904	98	1,705	847	1,585	738	1,366	1,106	2,472
1899								
Beds-fountain and bar equipment:								
1947	67	2,739	8,488	2,231	6,524	16,254	15,250	31,504
1939	51	2,027	3,368	1,590	2,389	7,692	5,968	13,660
1937	51	2,041	3,401	1,655	2,549	6,770	6,263	13,033
1935	48	1,478	2,328	1,096	1,436	4,043	4,171	8,214
1933	40	1,092	1,415	816	948	3,386	2,649	6,035
1931	47	n.a.	n.a.	1,563	2,190	9,370	5,236	14,606
1929	54	3,603	6,108	2,764	3,922	14,020	10,490	24,510
1927	48	3,505	5,901	2,838	4,223	13,538	10,391	23,929
1925	60	2,939	5,127	2,372	3,628	13,400	8,632	22,032
1923	66	3,442	5,487	2,659	3,779	11,457	6,712	18,169
1921	62	2,663	4,131	2,144	3,048	8,911	6,496	15,407
1919	66	3,405	4,613	2,559	3,332	6,627	8,558	15,185
1917	67	2,815	2,509	2,229	1,661	4,898	3,883	8,781
1914	63	2,359	1,863	1,797	1,239	4,113	2,443	6,556
1909	37	1,802	1,130	1,459	835	2,710	1,924	4,634
1904	30	1,190	794	963	550	2,018	997	3,016
1899								
Models and patterns (except paper):								
1947	209	1,868	5,144	1,691	4,325	8,573	3,528	12,101
1939	112	n.a.	n.a.	1,206	1,642	4,124	951	5,075
Small arms:								
1947	34	10,453	30,545	9,249	25,876	42,314	13,596	57,067
1939	23	6,061	8,807	5,001	6,846	14,650	3,053	17,712
1937	21	7,461	10,966	6,847	9,670	17,222	4,333	21,555
1935	22	5,469	6,578	4,855	5,499	9,615	3,412	13,027
1933	22	3,940	4,022	3,382	3,164	7,045	2,169	9,214
1931	24	n.a.	n.a.	4,264	4,711	8,110	2,501	10,611
1929	21	7,746	11,190	6,838	9,210	17,863	4,117	21,970
1927	20	6,884	9,613	6,130	7,934	14,404	6,048	19,452
1925	20	5,121	7,037	4,470	5,584	12,005	3,174	16,179
1923	21	6,956	9,255	6,204	7,593	14,021	3,644	17,665
1921	20	5,349	7,015	4,726	5,730	10,188	2,666	12,884
1919	26	12,525	15,428	11,287	13,333	22,567	7,614	30,181
1917	29	7,502	5,776	7,064	5,067	7,874	2,670	10,544
1909	27	5,421	4,447	6,002	3,919	6,489	1,869	8,058
1904	30	6,563	4,231	6,224	3,723	6,538	1,738	8,276
1899	32	4,710	2,786	4,482	2,542	4,140	1,305	5,445
Small arms ammunition:								
1947	8	8,050	22,091	6,748	17,297	40,840	36,820	77,660
1939	13	5,247	6,945	4,264	4,953	16,087	13,064	29,091
1937	11	n.a.	n.a.	5,071	5,698	16,334	14,709	31,043
Miscellaneous products, n.e.c.:								
1947	666	20,599	52,122	18,938	36,948	91,712	91,231	182,943
1939	611	n.a.	n.a.	14,929	13,139	34,984	37,169	72,153

n.a.—Not available.

¹ Value of products less cost of materials, supplies, fuel, electricity, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture. For "Small arms," see GENERAL EXPLANATIONS—Method of calculating value added by manufacture for selected industries in 1947.² Figures for years prior to 1935 do not include cost of contract work.³ For 1947 and 1929, value of products shipped; for all other years, value of products made. See GENERAL EXPLANATIONS—Value of products shipped.⁴ The 1939 returns have been retabulated to provide figures comparable with those for 1947. Value added in 1939, before retabulation and on a basis comparable with earlier years, was \$17.5 million for "Furs, dressed and dyed." No comparable figures are available for prior years for "Beauty and barber shop equipment," "Models and patterns," and "Miscellaneous products, n.e.c."⁵ In 1899 and 1904 "Signs and advertising displays" was not classified as a separate industry.⁶ The figures for "Small arms ammunition" for prior years are not sufficiently comparable with those for later years to be shown in this table because they include data for blasting and detonating caps.

SIGNS AND ADVERTISING DISPLAYS; MISCELLANEOUS MANUFACTURED PRODUCTS 827

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947

(Money figures and man-hours in thousands. For explanation of column captions see GENERAL EXPLANATIONS)

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Beauty and barber shop equipment, total¹	70	4,065	\$11,584	3,185	6,624	\$7,698	\$17,840	\$14,304	\$32,144	\$263
Northeast	29	489	1,214	363	727	755	1,815	1,957	3,772	24
East North Central	28	3,075	9,128	2,423	5,080	5,969	13,035	19,620	23,655	200
Illinois	18	2,002	5,963	1,530	3,133	3,752	8,483	7,499	15,982	93
Wisconsin	3	966	2,873	811	1,772	2,038	4,068	2,807	6,875	161
West North Central	6	272	861	223	486	609	1,190	956	2,146	6
South and West	7	229	681	176	331	365	1,800	771	2,571	33
Furs, dressed and dyed, total¹	175	6,848	25,540	6,147	12,730	21,673	42,954	9,747	52,701	503
New England	7	58	144	46	94	107	416	174	590	11
Middle Atlantic	155	6,514	24,422	5,851	12,117	20,751	39,236	8,719	47,955	456
New York	119	3,464	13,266	3,098	5,885	11,250	21,327	5,109	26,436	216
New Jersey	28	2,381	9,396	2,164	5,271	8,002	15,040	3,068	18,108	237
Pennsylvania	8	669	1,760	589	961	1,499	2,869	542	3,411	6
Other Divisions	13	276	974	250	519	485	3,302	854	4,156	34
Signs and advertising displays, total¹	1,983	28,879	82,045	24,328	49,611	62,026	136,454	75,902	296,356	5,540
New England	132	1,343	3,436	1,110	2,237	2,575	5,650	3,068	8,718	130
Massachusetts	77	844	2,294	685	1,391	1,692	3,096	2,039	5,138	91
Connecticut	30	326	766	268	541	569	1,872	669	2,541	26
Middle Atlantic	571	7,696	22,595	6,487	13,322	16,970	36,847	20,790	57,547	865
New York	367	4,934	15,102	4,230	8,589	11,499	13,599	13,509	38,295	390
New Jersey	79	1,101	2,869	893	1,849	2,126	4,547	2,801	7,348	150
Pennsylvania	125	1,661	4,624	1,364	2,884	3,345	7,544	4,390	11,894	265
East North Central	483	9,981	27,517	8,439	17,103	20,426	45,060	28,698	73,758	1,982
Ohio	148	4,179	10,786	3,541	7,088	8,090	17,460	12,492	29,862	984
Indiana	48	872	2,205	772	1,404	1,763	3,594	1,427	5,021	132
Illinois	154	3,845	10,742	2,947	6,171	7,670	17,573	10,713	28,256	666
Michigan	84	849	2,398	722	1,440	1,950	4,393	2,399	6,382	152
Wisconsin	49	536	1,388	437	1,000	1,043	2,450	1,967	4,117	78
West North Central	184	2,772	7,275	2,348	4,818	5,533	11,205	7,069	18,294	463
Minnesota	48	538	1,510	466	958	1,143	2,635	1,447	4,112	89
Iowa	31	609	1,373	514	1,155	1,059	1,657	1,544	3,201	119
Missouri	63	1,210	3,214	1,019	1,991	2,428	4,969	3,198	8,137	192
Nebraska	15	172	440	154	297	385	821	447	1,268	31
Kansas	21	181	551	140	301	383	793	344	1,137	34
South Atlantic	129	1,308	3,177	1,119	2,256	2,544	5,093	3,254	8,347	373
Maryland	19	146	343	122	245	271	600	327	827	29
Virginia	16	404	701	366	734	613	1,097	1,162	2,239	222
North Carolina	11	121	304	100	209	147	602	637	937	63
Georgia	19	189	483	152	293	336	863	423	1,266	53
Florida	33	233	705	197	397	568	1,160	553	1,713	25
East South Central	50	729	1,768	641	1,359	1,447	2,682	2,022	4,704	147
Kentucky	15	379	801	322	652	627	1,316	1,064	2,380	119
Tennessee	18	246	671	213	478	542	929	651	1,580	24
West South Central	121	1,417	3,903	1,231	2,517	3,125	6,172	2,920	9,692	294
Louisiana	12	290	814	243	454	609	1,262	698	1,770	32
Oklahoma	14	108	316	90	187	247	465	722	50	50
Texas	86	928	2,532	820	1,707	2,069	4,136	1,978	6,114	169
Mountain	55	714	2,261	588	1,210	1,783	3,480	1,274	4,754	168
Colorado	21	250	807	201	421	605	1,219	511	1,730	30
Utah	11	148	435	127	254	356	712	243	955	14
Pacific	258	2,919	10,113	2,365	4,789	7,623	14,265	6,877	21,142	1,138
Washington	37	336	1,241	522	950	1,627	2,671	1,427	2,271	84
Oregon	24	298	974	236	466	701	1,471	661	2,132	42
California	197	2,285	7,898	1,862	3,801	5,921	11,167	5,572	16,739	1,032
Hair work, total¹	87	1,170	2,436	1,046	2,039	2,040	4,380	3,771	8,151	51
New England	4	12	23	12	25	23	37	28	65	3
Middle Atlantic	68	1,067	2,237	965	1,875	1,901	4,068	3,519	7,887	45
New York	58	886	1,963	800	1,541	1,675	3,642	3,681	6,698	29
North Central	8	55	92	38	70	59	160	160	323	3
South and West	7	36	84	31	69	57	112	64	176	2
Umbrellas, parasols, and canes, total¹	164	3,585	8,360	3,267	6,628	6,490	15,421	18,927	34,348	526
New England	5	93	218	77	107	143	411	411	841	13
Middle Atlantic	142	2,905	7,030	2,642	5,406	5,523	13,020	15,655	28,675	508
New York	116	1,353	3,478	1,215	2,457	2,690	7,010	11,104	18,114	167
New Jersey	9	646	1,668	606	1,248	1,368	2,829	1,485	4,314	148
Pennsylvania	17	906	1,884	821	1,701	1,465	3,181	3,066	6,247	183
East North Central	8	142	432	123	228	247	699	1,177	1,876	4
South and West	9	445	890	425	887	577	1,272	1,684	2,956	1
Maryland	6	410	611	396	830	623	1,106	1,539	2,645	1
Tobacco pipes, total¹	76	3,140	8,310	2,745	5,552	6,302	13,738	5,587	19,325	119
Northeast	57	2,463	7,081	2,178	4,477	5,204	11,068	4,477	15,545	69
New York	46	1,440	4,205	1,255	2,546	3,063	6,469	2,236	8,765	43
North Central	11	463	1,158	415	823	820	1,744	655	2,399	22
South and West	8	214	571	182	252	278	926	455	1,381	19
Soda-fountain and bar equipment, total¹	67	2,739	8,488	2,231	4,822	6,524	14,254	15,260	31,504	770
Northeast	36	986	2,985	833	1,819	2,262	5,172	5,801	11,973	313
New York	22	245	804	205	481	621	1,712	1,468	3,180	82
New Jersey	6	475	1,295	406	857	1,053	2,722	3,549	6,271	166
Pennsylvania	6	1,821	5,056	1,296	2,799	3,976	9,190	8,891	18,081	322
North Central	18	899	2,700	695	1,527	2,176	4,476	4,377	10,413	245
Illinois	6	132	447	102	204	286	892	558	1,450	106
South and West	13									

See footnotes at end of table.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STATES: 1947—Continued

INDUSTRY, DIVISION, AND STATE	Number of establishments	All employees		Production and related workers			Value added by manufacture	Cost of materials, fuel, electricity, and contract work	Value of products shipped	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total				
Models and patterns (except paper), total¹	209	1,868	\$5,144	1,691	3,362	\$4,325	\$8,573	\$3,528	\$12,101	\$72
New England	15	119	320	111	233	292	475	291	766	1
Middle Atlantic	100	988	2,835	896	1,799	2,310	4,659	1,760	6,419	17
New York	80	864	2,525	784	1,580	2,048	4,197	1,578	5,775	15
East North Central	58	533	1,410	484	937	1,237	2,338	1,150	3,488	46
Illinois	22	165	410	147	291	356	694	491	1,185	—
Michigan	14	263	691	239	452	596	1,188	402	1,590	26
West North Central	5	25	60	24	50	59	118	65	183	1
West South Central	7	22	46	22	44	46	117	35	152	—
Pacific	26	181	473	154	289	381	866	227	1,093	7
California	23	174	459	147	286	367	839	216	1,055	7
Small arms, total¹	34	10,453	30,545	9,249	19,200	25,876	42,314	13,596	57,067	3,898
Small arms ammunition, total¹	8	8,050	22,091	6,748	13,649	17,297	40,840	36,820	77,660	2,513
Miscellaneous products, n.e.c., total¹	666	20,599	52,122	16,938	34,001	36,948	91,712	91,231	182,943	3,815
New England	72	2,313	5,052	2,001	3,911	3,645	9,362	14,698	24,060	189
Massachusetts	34	780	1,869	659	1,323	1,111	3,569	2,167	5,706	119
Rhode Island	20	849	1,899	738	1,454	1,398	3,033	8,223	11,256	31
Middle Atlantic	330	10,879	28,961	8,718	17,607	19,759	49,192	44,367	93,559	2,020
New York	248	5,428	13,233	4,680	9,516	9,767	24,539	20,535	45,074	787
New Jersey	41	4,283	12,469	3,046	5,957	7,642	18,673	14,073	32,746	1,174
Pennsylvania	41	1,168	3,259	992	2,134	2,350	5,980	9,759	15,739	109
East North Central	129	3,732	8,708	3,149	6,223	6,534	17,196	16,650	33,846	882
Ohio	30	851	1,964	665	1,288	1,344	4,688	4,196	8,784	103
Illinois	55	1,452	3,835	1,171	2,317	2,661	7,068	6,283	13,351	668
Michigan	24	534	1,293	477	927	1,101	2,935	3,411	6,346	38
West North Central	39	1,657	4,314	1,396	2,827	3,307	7,326	2,857	10,183	141
Minnesota	19	1,332	3,727	1,119	2,232	2,886	5,893	1,962	7,855	125
Missouri	12	179	393	148	303	260	1,023	607	1,630	12
South	44	830	1,408	754	1,525	1,143	2,130	1,502	3,632	310
Maryland	5	179	329	160	316	234	556	618	1,174	14
Florida	21	337	537	307	615	459	702	444	1,146	25
Mountain	7	193	553	142	266	310	1,009	2,395	3,404	51
Pacific	45	995	3,126	778	1,642	2,250	5,497	8,762	14,259	222
California	39	882	2,784	675	1,452	1,974	4,683	7,849	12,432	195

¹ For each producing State not shown separately in the table (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.

Beauty and barber shop equipment: *Northeast*, New Hampshire, 1; New York, 21 (372); New Jersey, 3; Pennsylvania, 4 (49); *East North Central*, Ohio, 3 (82); Indiana, 2; Michigan, 2; *West North Central*, Minnesota, 2; Missouri, 4; *South and West*, Maryland, 1; Kentucky, 1; Utah, 1; California, 4 (145).

Furs, dressed and dyed: *New England*, Massachusetts, 2; Connecticut, 5; *Other Divisions*, Illinois, 4 (33); Missouri, 1; Tennessee, 1; Colorado, 2; Washington, 1; California, 4 (23).

Signs and advertising displays: *New England*, Maine, 7 (38); New Hampshire, 5 (15); Vermont, 3 (32); Rhode Island, 10 (88); *West North Central*, North Dakota, 3 (52); South Dakota, 3 (10); *South Atlantic*, Delaware, 5 (26); District of Columbia, 8 (73); West Virginia, 11 (65); South Carolina, 7 (51); *East South Central*, Alabama, 12 (65); Mississippi, 8 (48); *West South Central*, Arkansas, 9 (91); *Mountain*, Montana, 4 (76); Idaho, 8 (87); New Mexico, 3; Arizona, 6 (78); Nevada, 2.

Hair work: *New England*, Massachusetts, 3; Rhode Island, 1; *Middle Atlantic*, New Jersey, 7 (113); Pennsylvania, 3 (68); *North Central*, Ohio, 3; Illinois, 3 (22); Wisconsin, 1; Minnesota, 1; *South and West*, Florida, 1; Texas, 1; California, 5.

Umbrellas, parasols, and canes: *New England*, Massachusetts, 5 (93); *East North Central*, Ohio, 1; Indiana, 1; Illinois, 3 (27); Michigan, 3; *South and West*, Louisiana, 1; Montana, 1; California, 1.

Tobacco pipes: *Northeast*, New Hampshire, 1; Rhode Island, 1; New Jersey, 9; *North Central*, Ohio, 1; Indiana, 3; Illinois, 3 (208); Michigan, 1; Missouri, 3 (172); *South and West*, Virginia, 1; North Carolina, 1; Kentucky, 1; Tennessee, 1; Washington, 1; California, 3 (56).

Soda-fountain and bar equipment: *Northeast*, Massachusetts, 2; Rhode Island, 1; New Jersey, 5 (131); *North Central*, Ohio, 2; Michigan, 6 (558); Minnesota, 2; Missouri, 1; Nebraska, 1; *South and West*, Texas, 1; Oregon, 1; California, 11.

Models and patterns (except paper): *New England*, Maine, 1; Massachusetts, 11 (97); Rhode Island, 2; Connecticut, 1; *Middle Atlantic*, New Jersey, 11 (85); Pennsylvania, 9 (39); *East North Central*, Ohio, 10 (45); Indiana, 5 (18); Wisconsin, 5 (42); *West North Central*, Minnesota, 1; Missouri, 3; Nebraska, 1; *West South Central*, Arkansas, 1; Oklahoma, 2; Texas, 4 (15); *Pacific*, Washington, 1; Oregon, 2.

Small arms: Massachusetts, 4 (2,916); Connecticut, 8 (4,742); New York, 3 (2,461); New Jersey, 1; Indiana, 1; Michigan, 5 (78); Wisconsin, 1; Texas, 1; Colorado, 5 (110); California, 5 (58).

Small arms ammunition: Connecticut, 2; Pennsylvania, 1; Illinois, 1; Minnesota, 1; Texas, 1; Idaho, 1; California, 1.

Miscellaneous products, n.e.c.: *New England*, Maine, 3; Vermont, 1; Connecticut, 14 (408); *East North Central*, Indiana, 7 (275); Wisconsin, 13 (620); *West North Central*, Iowa, 2; Nebraska, 3 (32); Kansas, 3; *South*, Virginia, 1; West Virginia, 2; Georgia, 1; Kentucky, 1; Tennessee, 2; Alabama, 1; Arkansas, 1; Louisiana, 5 (219); Oklahoma, 1; Texas, 3 (16); *Mountain*, Colorado, 5; Utah, 2; *Pacific*, Washington, 3 (21); Oregon, 3 (92).

SIGNS AND ADVERTISING DISPLAYS; MISCELLANEOUS MANUFACTURED PRODUCTS 829

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947
 [Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS]

ITEM	Industry										
	Beauty and barber shop equipment	Furs, dressed and dyed	Signs and advertising displays	Hair work	Umbrellas, parasols, and canes	Tobacco pipes	Soda-fountain and bar equipment	Models and patterns (exc. paper)	Small arms	Small arms ammunition	Miscellaneous products, n.e.c.
ALL ESTABLISHMENTS											
Number of establishments.....	70	175	1,983	87	164	76	67	209	34	8	666
All employees:											
Number (average for the year).....	4,065	6,848	28,879	1,170	3,585	3,140	2,739	1,868	10,453	8,050	20,599
Salaries and wages, total.....	\$11,884	\$25,540	\$82,045	\$2,436	\$8,360	\$8,810	\$8,488	\$5,144	\$30,545	\$22,091	\$52,122
Production and related workers:											
Number (average for the year).....	3,185	6,147	24,328	1,046	3,267	2,745	2,231	1,691	9,249	6,748	16,938
Man-hours, total..... thousands.....	6,624	12,730	49,611	2,039	6,628	5,552	4,822	3,362	19,200	13,649	34,001
Wages, total.....	\$7,698	\$21,673	\$82,026	\$2,040	\$6,490	\$6,302	\$6,524	\$4,325	\$25,876	\$17,297	\$36,948
Value added by manufacture.....	\$17,840	\$42,954	\$130,454	\$4,380	\$15,421	\$13,738	\$16,254	\$8,573	\$42,314	\$40,840	\$91,712
ESTABLISHMENTS REPORTING DETAILED STATISTICS											
Number of establishments.....	70	126	1,208	87	99	76	67	59	34	8	399
All employees:											
Number (average for the year).....	4,065	6,602	25,692	1,170	3,319	3,140	2,739	1,145	10,453	8,050	19,167
Salaries and wages, total.....	\$11,884	\$24,842	\$74,527	\$2,436	\$7,852	\$8,810	\$8,488	\$3,385	\$30,545	\$22,091	\$49,641
Production and related workers:											
Number (average for the year).....	3,185	5,907	21,203	1,046	3,010	2,745	2,231	1,000	9,249	6,748	15,579
Man-hours, total..... thousands.....	6,624	12,249	45,428	2,039	6,120	5,552	4,822	1,976	19,200	13,649	31,293
Wages, total.....	\$7,698	\$21,005	\$64,839	\$2,040	\$6,028	\$6,302	\$6,524	\$2,687	\$25,876	\$17,297	\$34,775
Value added by manufacture.....	\$17,840	\$41,751	\$117,872	\$4,380	\$14,308	\$13,738	\$16,254	\$5,592	\$42,314	\$40,840	\$87,348
Number of employees for pay period ended nearest Oct. 15:											
All employees.....	3,773	7,389	26,823	1,407	3,701	3,216	2,759	1,188	10,892	8,120	20,327
Male.....	2,341	6,542	21,110	379	1,375	2,282	2,580	825	9,590	4,895	13,097
Female.....	1,432	847	5,713	1,028	2,325	934	179	363	1,302	3,225	7,230
Production and related workers.....	2,905	6,654	22,067	1,267	3,390	2,833	2,231	1,011	9,631	6,793	16,693
Male.....	1,813	5,958	18,002	298	1,194	2,025	2,188	742	8,834	3,995	10,558
Female.....	1,092	696	4,065	969	2,196	808	43	269	797	2,798	5,735
Force-account construction workers:											
Administrative, supervisory, sales, and all other.....	868	735	4,756	140	311	383	528	147	1,261	1,327	3,634
Male.....	528	584	3,108	81	182	257	392	83	756	900	2,139
Female.....	340	151	1,648	59	129	126	136	64	505	427	1,495
All employees, number by month:											
January.....	4,859	5,705	24,548	1,103	3,136	3,496	2,831	1,184	9,592	8,008	19,104
February.....	4,628	5,484	24,727	1,069	3,153	3,472	2,676	1,192	9,805	7,997	19,058
March.....	4,611	5,675	25,200	1,049	3,262	3,353	2,765	1,208	10,057	7,985	19,224
April.....	4,407	6,333	25,152	1,000	3,075	3,267	2,777	1,156	10,189	8,038	18,988
May.....	4,075	6,696	25,311	1,015	3,029	3,094	2,720	1,136	10,324	8,072	18,554
June.....	3,859	6,799	25,544	1,044	3,037	2,856	2,741	1,120	10,466	8,035	17,914
July.....	3,729	6,907	25,376	1,035	3,013	2,698	2,717	1,092	10,537	7,997	18,220
August.....	3,576	7,139	25,742	1,115	3,335	2,830	2,732	1,128	10,537	7,969	18,604
September.....	3,749	7,277	26,270	1,252	3,455	3,083	2,702	1,090	10,624	7,964	19,525
October.....	3,773	7,389	26,823	1,407	3,701	3,216	2,759	1,158	10,892	8,120	20,327
November.....	3,787	7,098	26,787	1,475	3,804	3,205	2,711	1,147	11,091	8,155	20,704
December.....	3,692	6,700	26,233	1,374	3,821	3,117	2,716	1,111	11,330	8,256	19,483
Cost of materials, fuel, electricity, and contract work.....	\$14,304	\$9,026	\$67,633	\$3,771	\$17,490	\$5,587	\$15,250	\$1,721	\$13,596	\$36,820	\$87,527
Materials, parts, containers, and supplies.....	14,007	7,700	63,162	3,599	16,816	5,216	14,701	1,644	12,289	36,119	85,196
Fuels, total.....	95	252	857	2	91	46	86	18	545	396	751
Bituminous coal.....	24	140	173		25	19	50	4	232	252	193
Anthracite.....		27	57		16	4	1		95		36
Coke.....		1	2								
Fuel oils.....	60	68	242		37	20	15	4	147	93	331
Gas.....	11	18	335	2	13	3	20	10	71	51	157
Other fuels.....		8	48								34
Purchased electric energy.....	114	409	848	18	70	104	90	33	333	213	840
Contract and commission work.....	88	665	2,766	152	513	221	373	26	429	92	740
Value of inventories:											
Beginning of year, total.....	\$8,010	\$3,553	\$15,714	\$790	\$2,983	\$4,663	\$5,356	\$573	\$16,485	\$14,035	\$32,428
Finished products.....	1,746	n.a.	2,945	399	n.a.	1,228	1,220	201	2,225	3,919	10,151
Materials, supplies, and work in process.....	6,264	n.a.	12,769	391	n.a.	3,435	4,136	372	14,260	10,116	22,277
End of year, total.....	6,514	2,675	20,914	888	3,161	4,637	6,450	680	18,186	19,348	33,543
Finished products.....	1,123	n.a.	4,293	462	n.a.	1,409	1,785	236	2,169	5,894	10,568
Materials, supplies, and work in process.....	5,191	n.a.	16,619	426	n.a.	3,228	4,665	444	16,027	13,454	22,975
Expenditures for plant and equipment:											
New plant and equipment.....	\$263	\$503	\$5,540	\$51	\$526	\$110	\$770	\$72	\$3,898	\$2,513	\$3,815
Construction and major alteration of fixed plants.....	39	104	2,120	9	241	21	157	21	987	346	1,004
Buildings.....	15	100	1,946	9	230	21	139	21	977	342	893
Other construction.....	24	4	174		11		18		10	4	111
Machinery and equipment.....	224	399	3,420	42	285	89	613	51	2,911	2,167	2,811
Production machinery and equipment.....	193	376	2,221	25	245	71	494	45	2,767	2,145	2,496
Other machinery and equipment.....	31	23	1,199	17	40	18	119	6	144	22	315
Used plant and equipment, and land.....	66	33	604	18	4	28	93	36	112	74	232
Number of highway-type motor vehicles owned or leased:											
Trucks.....	16	64	2,183	4	10	10	42	12	33	55	166
By manufacturer's rated capacity:											
Under 1 1/2 tons.....	10	18	1,514	2	4	5	23	8	9	22	55
1 1/2 tons.....	6	16	542	2	1	4	9	3	6	10	68
Over 1 1/2 tons and less than 3 1/2 tons.....		18	115		2	1	7	1	12	21	27
3 1/2 tons and less than 5 tons.....		4	8						2	2	5
5 tons and over.....		8	4		3		3		4	2	11
By body type:											
Van.....	1	34	30	1	2	2	6	1		5	14
Stake or platform.....	2	3	743			3	14	2	15	16	63
Panel or light delivery.....	10	23	1,082	2	7	5	17	8	9	25	44
All other trucks.....	3	4	328	1	1		6	1	9	9	45
Truck tractors.....			18				1	1	1	1	14
Trailers and semitrailers.....			15				2	1	2	4	11

n.a.—Not available.

TABLE 4.—SELECTED GENERAL STATISTICS BY SIZE OF ESTABLISHMENT, FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars. For explanation of line captions see GENERAL EXPLANATIONS. Data which cannot be shown without disclosing information for individual companies have been combined with figures for other groups. A d appears in the column where the figure has been omitted and the combined figure is printed in italics]

INDUSTRY AND ITEM	Total, all establish- ments	Establishments with an average of—									
		1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000- 2,499 employees	2,500 employees and over
Beauty and barber shop equipment:											
Number of establishments.....	70	20	10	12	14	5	7		1	1	
Number of employees (average for the year).....	4,065	42	66	166	453	384	2,954		(d)	(d)	
Value added by manufacture.....	\$17,840	\$159	\$249	\$850	\$2,269	\$1,771	\$12,542		(d)	(d)	
Furs, dressed and dyed:											
Number of establishments.....	175	42	36	25	31	27	11	2	1		
Number of employees (average for the year).....	6,848	111	251	342	1,093	2,011	3,040	(d)	(d)		
Value added by manufacture.....	\$42,954	\$331	\$2,021	\$1,974	\$6,071	\$10,912	\$21,145	(d)	(d)		
Signs and advertising displays:											
Number of establishments.....	1,983	825	496	311	241	74	28	8			
Number of employees (average for the year).....	28,879	1,890	3,287	4,281	7,167	5,207	4,407	2,640			
Value added by manufacture.....	\$130,454	\$9,487	\$14,848	\$18,996	\$35,036	\$24,072	\$18,909	\$9,106			
Hair work:											
Number of establishments.....	87	31	24	14	14	4					
Number of employees (average for the year).....	1,170	69	151	194	495	261					
Value added by manufacture.....	\$4,390	\$456	\$611	\$821	\$1,488	\$1,004					
Umbrellas, parasols, and canes:											
Number of establishments.....	164	54	30	30	27	7	5	2			
Number of employees (average for the year).....	3,585	132	259	414	860	521	1,899	(d)			
Value added by manufacture.....	\$15,421	\$681	\$1,115	\$2,070	\$3,993	\$2,072	\$5,490	(d)			
Tobacco pipes:											
Number of establishments.....	76	25	14	10	10	10	5	1	1		
Number of employees (average for the year).....	3,140	54	86	138	324	689	1,849	(d)	(d)		
Value added by manufacture.....	\$13,738	\$171	\$263	\$453	\$1,305	\$2,876	\$3,670	(d)	(d)		
Soda-fountain and bar equipment:											
Number of establishments.....	67	20	9	11	13	7	5	1	1		
Number of employees (average for the year).....	2,739	51	60	143	447	479	1,559	(d)	(d)		
Value added by manufacture.....	\$16,254	\$415	\$402	\$342	\$2,928	\$2,586	\$9,081	(d)	(d)		
Models and patterns (except paper):											
Number of establishments.....	209	107	53	29	17	1	2				
Number of employees (average for the year).....	1,868	214	363	393	484	(d)	408				
Value added by manufacture.....	\$6,573	\$1,036	\$1,613	\$1,743	\$2,230	(d)	\$1,951				
Small arms:											
Number of establishments.....	34	6	4	2	7	3	2	4	3	3	
Number of employees (average for the year).....	10,453	12	(d)	55	221	(d)	594	1,660	2,108	5,803	
Value added by manufacture.....	\$42,314	\$53	(d)	\$154	\$734	(d)	\$2,390	\$6,708	\$3,582	\$23,693	
Small arms ammunition:											
Number of establishments.....	8	1	3						1	1	2
Number of employees (average for the year).....	8,050	(d)	19						(d)	(d)	8,031
Value added by manufacture.....	\$40,840	(d)	\$93						(d)	(d)	\$40,747
Miscellaneous products, n.e.c.:											
Number of establishments.....	666	225	136	106	114	43	28	9	3	2	
Number of employees (average for the year).....	20,599	449	883	1,449	3,668	2,922	4,319	3,066	(d)	3,843	
Value added by manufacture.....	\$91,712	\$2,266	\$3,552	\$6,025	\$15,800	\$15,508	\$18,634	\$15,336	(d)	\$14,541	

SIGNS AND ADVERTISING DISPLAYS; MISCELLANEOUS MANUFACTURED PRODUCTS 831

TABLE 5.—VALUE OF PRODUCTS SHIPPED, BY BROAD CLASSES OF PRODUCTS, FOR THE UNITED STATES: 1947

[The first column shows the total value of shipments of the specified industry, divided among: (A) products classified in (primary to) the industry, (B) products classified in other industries (secondary to the specified industry), and (C) miscellaneous receipts. The second column shows the value of shipments of the primary products of the specified industry reported by establishments in other industries. The third column shows the total value of shipments of the primary products of the specified industry by all reporting manufacturers]

[Money figures in thousands of dollars]

BEAUTY AND BARBER SHOP EQUIPMENT INDUSTRY	Shipped by—		
	Beauty and barber shop equipment industry	Other industries	All industries
Total shipments by the industry.....	\$32,144		
A. Beauty and barber shop equipment.....	18,629	\$4,842	\$23,471
B. Secondary products.....	12,938		
Hair preparations.....	5,617		
Other secondary products.....	7,321		
C. Miscellaneous receipts.....	577		

UMBRELLAS, PARASOLS, AND CANES INDUSTRY	Shipped by—		
	Umbrellas, parasols, and canes industry	Other industries	All industries
Total shipments by the industry.....	\$34,348		
A. Umbrellas, parasols, and canes.....	32,699		\$32,699
B. Secondary products.....	1,174		
C. Miscellaneous receipts.....	475		

FURS, DRESSED AND DYED, INDUSTRY	Shipped by—		
	Furs, dressed and dyed, industry	Other industries	All industries
Total shipments by the industry.....	\$52,701		
A. Furs, dressed and dyed.....	24,090	\$746	\$24,836
B. Secondary products and miscellaneous receipts ¹	28,611		

SIGNS AND ADVERTISING DISPLAYS INDUSTRY	Shipped by—		
	Signs and advertising displays industry	Other industries	All industries
Total shipments by the industry.....	\$206,356		
A. Signs and advertising displays.....	186,543	\$25,583	\$212,126
Luminous tubing and bulb signs.....	51,258	2,297	53,555
Nonelectric signs and advertising displays.....	94,168	6,855	101,023
Advertising novelties.....	11,032	13,979	25,011
Signs and advertising displays, not reported by type.....	30,085	2,452	32,537
B. Secondary products (cold cathode fluorescent lamps, partitions and fixtures, sheet-metal work, metal stampings, etc.).....	9,994		
C. Miscellaneous receipts.....	9,819		
Contract and commission work.....	1,672		
Repair work.....	6,161		
Other receipts.....	1,986		

HAIR WORK INDUSTRY	Shipped by—		
	Hair work industry	Other industries	All industries
Total shipments by the industry.....	\$8,151		
A. Hair work.....	7,772	\$63	\$7,835
B. Secondary products and miscellaneous receipts.....	379		

MISCELLANEOUS PRODUCTS, N.E.C., INDUSTRY	Shipped by—		
	Miscellaneous products, n.e.c., industry	Other industries	All industries
Total shipments by the industry.....	\$182,943		
A. Miscellaneous products, n.e.c.....	158,053	\$14,112	\$172,165
Fire extinguishing equipment.....	27,261	3,610	30,871
Miscellaneous fabricated products, n.e.c.....	130,792	10,502	141,294
B. Secondary products.....	20,234		
C. Miscellaneous receipts.....	4,656		
Contract and commission work.....	2,391		
Repair work.....	1,266		
Other receipts.....	999		

TOBACCO PIPES INDUSTRY	Shipped by—		
	Tobacco pipes industry	Other industries	All industries
Total shipments by the industry.....	\$19,325		
A. Tobacco pipes and cigarette holders.....	(d)	(d)	\$19,021
B. Secondary products.....	222		
C. Miscellaneous receipts.....	(d)		

SODA-FOUNTAIN AND BAR EQUIPMENT INDUSTRY	Shipped by—		
	Soda-fountain and bar equipment industry	Other industries	All industries
Total shipments by the industry.....	\$31,504		
A. Soda-fountain and bar equipment.....	25,352	\$7,955	\$33,307
B. Secondary products.....	5,202		
Unitary commercial refrigeration equipment.....	1,787		
Other secondary products.....	3,415		
C. Miscellaneous receipts.....	950		

MODELS AND PATTERNS (EXCEPT PAPER) INDUSTRY	Shipped by—		
	Models and patterns (except paper) industry	Other industries	All industries
Total shipments by the industry.....	\$12,101		
A. Models and patterns (except paper).....	11,530	\$1,110	\$12,640
B. Secondary products.....	484		
C. Miscellaneous receipts.....	87		

SMALL ARMS INDUSTRY	Shipped by—		
	Small arms industry	Other industries	All industries
Total shipments by the industry.....	\$57,067		
A. Small arms.....	53,921	\$1,011	\$54,932
B. Secondary products.....	2,557		
C. Miscellaneous receipts.....	589		

SMALL ARMS AMMUNITION INDUSTRY	Shipped by—		
	Small arms ammunition industry	Other industries	All industries
Total shipments by the industry.....	\$77,660		
A. Small arms ammunition.....	(3)	(3)	\$77,489
B. Secondary products.....	(3)		
C. Miscellaneous receipts.....	(3)		

¹ Withheld to avoid disclosing figures for individual companies.

² Combined to avoid disclosure. Includes in excess of \$25,000,000 in receipts for contract work.

³ Shipments of small arms ammunition by "other industries," amounting to less than 3 percent of the total for all industries, and shipments of secondary products and miscellaneous receipts, cannot be given specifically without disclosing figures for individual companies.

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

PRODUCT	1947		Total production (quantity)	1939	
	Total shipments and interplant transfers			Total production for sale and interplant transfer	
	Quantity	Value f.o.b. plant		Quantity	Value f.o.b. plant
	(units)		(units)	(units)	
Fire extinguishing equipment		\$30, 871			n.a.
Hand extinguishers meeting specifications of Underwriters' Laboratories and Factory Mutual Laboratories:					
Soda acid.....	182, 015	2, 482	190, 040		
Foam.....	77, 362	1, 332	80, 319		
Carbon dioxide.....	229, 100	6, 304	240, 681		
Hand pump (using water or calcium chloride solution).....	38, 437	556	39, 466		
Vaporizing liquid (carbon tetrachloride base).....	877, 998	6, 564	898, 057		
Other extinguishers meeting specifications of Underwriters' Laboratories and Factory Mutual Laboratories.....	61, 300	1, 738	61, 553	n.a.	n.a.
All other hand extinguishers:					
Grenade type (including manual and automotive types).....	480, 695	1, 159	482, 846		
Other hand extinguishers (includes dry powder types).....	249, 090	550	255, 556		
Other chemical fire extinguishing equipment (two wheeled chemical fire engines and fixed systems, except water sprinkler systems) ¹		4, 978			
Parts and attachments for chemical fire extinguishing equipment.....		5, 208			
Small arms ²		\$4, 332			n.a.
Pistols and revolvers.....	250, 076	8, 381	247, 814	90, 447	\$1, 585
Rifles:					
Center fire, repeating.....	137, 042	5, 127	126, 442	359, 583	3, 992
Rim fire, repeating.....	691, 103	12, 091	670, 394		
Center fire and rim fire, single shot ³	427, 057	4, 105	420, 908		
Shotguns:					
Double barrel and single barrel, repeating ⁴	561, 986	17, 241	552, 208	486, 429	6, 102
Single barrel, single shot.....	303, 769	3, 421	303, 167		
Other small arms and parts and attachments for small arms.....		4, 566			n.a.
Small arms ammunition.....		77, 489			28, 413

PRODUCT	1947		1939		
	Total shipments and interplant transfers		Total production for sale and interplant transfer		
	Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant	
	(M units)				
Beauty and barber shop equipment		\$23, 471			n.a.
Permanent waving equipment and accessories (machine and machineless)		9, 026			
Permanent waving machines.....	11	1, 986	n.a.	\$2, 021	
Protector clamps and spacers.....	1, 492	688			
Permanent waving machine pads (excluding solutions).....	231, 622	1, 154	n.a.	\$3, 639	
Machineless waving pads (excluding solutions).....	369, 758	3, 357			
Other permanent waving equipment.....		1, 841			
Cold wave supplies (excluding solutions).....		694		n.a.	
Hair dryers (excluding hand dryers).....	44	2, 355	n.a.	2, 019	
Hair clippers (hand and electric).....	1, 778	5, 083	n.a.	\$1, 202	
Hydraulic and reclining chairs and couch units.....		2, 270		n.a.	
Other beauty and barber shop equipment.....		3, 275		n.a.	
Beauty and barber shop equipment, not specified by type.....		768			
Signs and advertising displays		\$212, 126			\$5, 771
Luminous tubing and bulb signs ⁷		53, 555			25, 507
Nonelectric signs and advertising displays.....		101, 023			40, 930
Window, backbar, counter, and lobby cut-outs and displays.....		28, 254			12, 270
Metal signs by any application process: ⁸					
Porcelain enameled.....		9, 715			
All other metal signs.....		24, 066			28, 660
Screen processed signs (other than metal).....		9, 762			
All other signs and advertising displays ⁹		29, 226			
Advertising novelties.....		25, 011			15, 634
Signs and advertising displays, not specified by type.....		32, 537			3, 700

See footnotes at end of table.

SIGNS AND ADVERTISING DISPLAYS; MISCELLANEOUS MANUFACTURED PRODUCTS 833

TABLE 6.—QUANTITY AND VALUE OF PRODUCTS, TOTALS FOR THE UNITED STATES: 1947 AND 1939—Continued

PRODUCT	1947		1939	
	Total shipments and interplant transfers		Total production for sale and interplant transfer	
	Quantity	Value f.o.b. plant	Quantity	Value f.o.b. plant
Umbrellas, parasols, and canes	(M units)	\$12,699		\$11,154
Umbrellas ¹⁰	" 8,221	23,732	n.s.	8,290
Umbrella parts.....		8,275		2,763
Frames.....	(M dozen)	5,876	n.s.	2,002
Handles.....	1,000	1,862		761
Other parts.....		537		102
Canes.....		296		
Umbrellas, parasols, and canes, not specified by kind.....		396		
Tobacco pipes and cigarette holders	(M units)	19,621		7,427
Tobacco pipes.....	37,971	18,045		7,179
Briar.....	28,336	15,868	n.s.	6,425
Corn cob.....	6,971	518		350
Other pipes and pipes, not specified by kind.....	" 2,664	1,659		404
Pipe parts and accessories.....		132		298
Cigar and cigarette holders.....		844		
Soda-fountain and beer-dispensing equipment		33,307		n.s.
Soda-fountain equipment (cooler box, fountainette, and similar equipment).....		27,846		n.s.
Beer-dispensing equipment.....		5,461		
Models and patterns (except paper)		12,640		n.s.
Furs, dressed and dyed.....		24,836		n.s.
Hair work.....		7,835		n.s.
Miscellaneous fabricated products, not elsewhere classified.....		141,294		n.s.

n.s.—Not available.

¹ Includes a small amount of fire extinguishing equipment, not reported by type.

² Includes shipments to U. S. Military establishments by private manufacturing concerns. However, shipments by government establishments are not included.

³ Center fire and rim fire single shot combined to avoid disclosing figures for individual companies.

⁴ Double barrel and single barrel repeating shotguns combined to avoid disclosing figures for individual companies.

⁵ Data for 1939 include value of solutions for permanent waving pads. In 1947 these solutions have been reported separately but are classified in the chemical group of industries.

⁶ Includes a small amount of clippers for other than barber or toilet use, which are not shown separately to avoid disclosing figures for individual companies.

⁷ Includes signs sold and rented. The value of signs reported as produced for rental use amounted to \$4.5 million. See text for explanation of method of valuing signs produced for rental.

⁸ Includes point-of-sale signs, road signs, truck signs, highway and street markers, and all other metal signs.

⁹ Includes sign letters.

¹⁰ Less than 5 percent of the total value of umbrellas shown for each year consist of beach, garden, and wagon umbrellas, insofar as can be determined from separately reported information. The value of a negligible quantity of parasols reported separately each year is also included.

¹¹ Contains an estimate of between 10 and 15 percent; includes approximately 100,000 beach, garden, and wagon umbrellas reported separately.

¹² Contains an estimate of between 15 and 20 percent.

MOTION PICTURES

SPECIAL REPORT

MOTION PICTURES

This report shows 1947 Census of Manufactures statistics for motion-picture studios, laboratories, and other service organizations primarily engaged in the production of motion-picture films. The Motion-Picture Industry, as covered in this census, includes all activities and processes connected with the production of motion-picture films, such as the preparation of stories and scenes, photography, development of exposed films, the printing of projection films, and other necessary studio and laboratory work. Distribution and exhibition of motion-picture films are not included in this report.

Beginning with 1921, comparable statistics for establishments engaged in motion-picture production have been included in all Censuses of Manufactures. The production of motion-picture films has some aspects of a manufacturing industry and some of a service industry. It is classified with motion-picture distribution and exhibition as a service industry in the Standard Industrial Classification. In the Censuses of Manufactures, an industry report on motion-picture production has been included, but motion-picture figures have not been added into the State and United States summaries for the manufacturing industries since 1931.

Establishments in the Motion-Picture Industry were classified on the basis of the major type of work done by the establishment during the year. Detailed statistics are presented for the industry as a whole, and selected separate figures are shown for establishments primarily engaged in theatrical-film production, nontheatrical-film production, and in laboratory and other service activities. Rental studios, producers of trailers and previews, and establishments engaged in special production work on motion-picture films are included under "Laboratories and other service organizations."

It would be difficult to determine the value of the output of the Motion-Picture Industry for a given year, since theatrical films, which account for the major portion of the work performed by the industry, are usually handled on a rental basis and the income from these rentals is not realized until some time after the films are produced. Hence, the cost of work done during the year has been used as the measure of the production activities for theatrical- and non-theatrical-film production. Receipts for services performed during the year were collected for laboratory work and for studio rentals. "Total cost of work done during the year" as used in the following tables

represents cost of producing motion-picture films, receipts for use of studio facilities, receipts for laboratory work, and value of other work done. In this total cost of work done there is some duplication. Payments made by motion-picture producers for the use of rented studio facilities are reflected both in the figures for the cost of making the film and in the figures for use of studio facilities. Similarly, some of the payments reported for laboratory work may also be reflected in the data on cost of work done on motion-picture films.

Motion-picture establishments reported figures for total employment which are comparable with the total employment figures reported by other establishments covered in the 1947 Census of Manufactures. But the employment detail for motion-picture establishments is somewhat different. Total employment comprises all full-time and part-time personnel on the pay roll of the reporting establishments who worked or received compensation for any part of the 12 pay periods covered in the census year, including persons on paid sick leave, paid holidays, and paid vacations. For the Motion-Picture Industry the following detailed employment figures were collected:

Production Department Employees, include all employees whose duties were concerned wholly or chiefly with actual production of motion pictures, production units, or services directly related to production activities, as distinguished from the general management or administration of the studio or plant. Data for responsible "Professional and technical" employees, including managers, executives, and supervisory employees, were reported separately from "All other production department employees."

Administrative Department Employees, include all employees concerned wholly or chiefly with management, administration, and services ordinarily included in general overhead; clerks, typists, stenographers, bookkeepers, and other routine office employees; and executive, purchasing, finance, legal, cafeteria, medical, and professional and technical employees not included under "Production department employees." Data for responsible "Executive, professional, and technical employees" were reported separately from "All other administrative department employees."

The classification "All other production department employees" is comparable with the sum of the "Wage earners" and "Construction" employees figures in the 1939 census. The 1947 employment classifications for "Professional and technical employees" of the "Production Department" and "Administrative Department" employees are comparable with the sum of the 1939 classifications: "Salaried officers of the corporation"; "Salaried production employees (including managers, superintendents, other supervisory employees above the working-foreman level, professional and technical employees; clerks, stenographers, bookkeepers, and other clerical employees)"; and "Distribution" employees.

The Motion-Picture Industry was requested to report total current expenses incurred during 1947, other than salaries and wages. Detailed cost figures were collected for "Studio materials and supplies"; "Electrical energy purchased"; "Payments for rights and royalties (including story and music rights)"; "Cost of contract and commission work"; and "All other current expenses," other than salaries and wages. In earlier years, figures for the following expense items only were collected: "Studio supplies and containers for films," "Fuel," "Electric energy," and "Contract work." For these earlier years, figures for total expenses comparable with 1947 were estimated by subtracting total salaries and wages paid from the figures for total cost of work done during the year.

The following additional qualifications of the statistics presented in this report should be noted: (1) Figures shown in table 4 on cost of work done on theatrical films represent expenses, including salaries and wages, incurred during 1947; expenses incurred prior to or after the census year are not included in the figures. The number of theatrical films shown, however, represents the number of films completed during 1947. (2) The 1947 census reporting instructions for the Motion-Picture Industry provided that the sum of salaries and wages paid and total current expenses should equal the total cost of work done during the year, including receipts for use of studio facilities and laboratory work. This instruction resulted in an overstatement of current expenses of establishments reporting such receipts. For the industry as a whole this overstatement is estimated to be less than 2 percent of the total cost of work done; for laboratories and other service organizations the overstatement is estimated to be less than 11 percent. (3) Some establishments were unable to itemize

their current expenses in the manner requested. This resulted in a small overstatement of "All other current expenses," other than salaries and wages.

TABLE 1.—GENERAL STATISTICS FOR THE UNITED STATES: 1947 AND EARLIER CENSUS YEARS

(Money figures in thousands of dollars)

CENSUS YEAR	Number of establishments	All employees		Total expenses, other than salaries and wages ¹	Total cost of work done during the year ²
		Number (average for the year)	Salaries and wages, total		
1947	277	34,799	\$293,046	\$167,097	\$460,143
1939	178	35,345	142,543	73,157	215,700
1937	83	32,398	139,551	58,190	197,741
1935	129	27,592	104,430	57,435	161,865
1933	92	19,037	71,344	47,999	119,343
1931	140	(³)	(³)	n.a.	154,436
1929	142	19,602	85,028	99,074	184,102
1927	142	16,013	74,936	59,407	134,343
1925	132	11,518	49,017	44,619	93,636
1923	97	9,904	38,425	n.a.	\$86,418
1921 ⁴	127	10,659	37,693	n.a.	\$77,397

n.a.—Not available.
¹ Total expenses other than salaries and wages were reported for 1947. For earlier years, comparable figures were estimated by subtracting total salaries and wages paid from total cost of work done during the year.
² Represents cost of producing motion-picture films, receipts for use of studio facilities, receipts for laboratory work, and value of other work done.
³ Only figures for production-department employees were collected for 1931; the totals for this department were: employees, 14,939; wages and salaries, \$70,637,000.
⁴ Represents value of production at the plant.
⁵ No comparable data for years prior to 1921 are available.

TABLE 2.—GENERAL STATISTICS BY DIVISIONS AND STANDARD METROPOLITAN AREAS: 1947

(Money figures in thousands of dollars)

DIVISION, AREA, AND TYPE OF WORK	Number of establishments	All employees		Total expenses other than salaries and wages	Total cost of work done during the year ¹	Expenditures for new plant and equipment
		Number (average for the year)	Salaries and wages, total			
Motion pictures, United States, total ²	277	34,799	\$293,046	\$167,097	\$460,143	\$14,362
Theatrical-film producers	100	27,549	261,276	121,806	363,082	11,568
Nontheatrical-film producers	127	2,445	8,746	9,613	18,366	293
Laboratories and other service organizations	50	4,805	23,024	35,678	56,755	1,801
New England ³	4	17	50	112	162	3
Middle Atlantic	79	3,701	15,549	29,543	45,192	1,028
New York Metropolitan Area	73	3,647	15,359	29,280	44,629	1,063
Theatrical- and nontheatrical-film producers ⁴	51	1,490	7,795	8,781	16,496	363
Laboratories and other service organizations	22	2,157	7,654	20,499	28,153	659
Other Middle Atlantic ⁵	6	54	190	363	553	25
East North Central	28	1,219	4,216	3,435	7,651	261
Chicago Metropolitan Area ⁶	14	692	2,721	2,612	5,333	273
Other East North Central ⁷	14	527	1,495	823	2,318	166
West North Central ⁸	10	181	495	1,042	1,537	167
South Atlantic ⁹	4	43	167	433	639	113
South Central ¹⁰	7	38	204	146	356	34
West	145	29,550	272,335	132,286	404,621	12,631
Los Angeles Metropolitan Area	130	29,393	271,974	131,206	403,180	(¹¹) 11,326
Theatrical-film producers	87	26,573	255,767	115,533	371,279	(¹²) 1,024
Nontheatrical-film producers	23	247	1,190	1,392	2,902	(¹³)
Laboratories and other service organizations	20	2,573	15,617	14,311	29,328	(¹⁴)
Other West ¹⁵	15	157	361	1,089	1,441	(¹⁵)

¹ Withheld to avoid disclosing figures for individual companies.
² See footnote 2, table 1.
³ For each producing State (see GENERAL EXPLANATIONS "Disclosure of Data for Individual Companies"), there are shown below the number of establishments and, in parentheses, the number of employees for States represented by three or more companies, when possible.
⁴ New England, Massachusetts, 3; Connecticut, 1; Middle Atlantic, New York, 73 (3,647); New Jersey, 1; Pennsylvania, 5; East North Central, Ohio, 5 (28); Indiana, 1; Illinois, 15; Michigan, 4 (469); Wisconsin, 3 (18); West North Central, Minnesota, 5 (91); Iowa, 2; Missouri, 3; South Atlantic, District of Columbia, 1; Georgia, 2; Florida, 1; South Central, Tennessee, 1; Louisiana, 3 (75); Texas, 3; West, Colorado, 3 (119); Washington, 2; Oregon, 1; California, 139 (29,424).
⁵ Nontheatrical-film producers only.
⁶ Theatrical-film producers, 12; nontheatrical-film producers, 39.
⁷ Theatrical-film producers, 1; nontheatrical-film producers, 10; laboratories and other service organizations, 3.
⁸ Theatrical-film producers, 13; laboratories and other service organizations, 1.
⁹ Nontheatrical-film producers, 3; laboratories and other service organizations, 1.
¹⁰ Nontheatrical-film producers, 6; laboratories and other service organizations, 1.
¹¹ Nontheatrical-film producers, 13; laboratories and other service organizations, 2.
¹² Nontheatrical-film producers, 13; laboratories and other service organizations, 2.
¹³ Nontheatrical-film producers, 13; laboratories and other service organizations, 2.
¹⁴ Nontheatrical-film producers, 13; laboratories and other service organizations, 2.
¹⁵ Nontheatrical-film producers, 13; laboratories and other service organizations, 2.

TABLE 3.—DETAILED STATISTICS FOR THE UNITED STATES: 1947

[Money figures in thousands of dollars]

ITEM	Motion pictures, total	Theatrical-film producers	Nontheatrical-film producers	Laboratories and other service organizations
ALL ESTABLISHMENTS				
Number of establishments.....	277	100	127	50
All employees:				
Number (average for the year).....	34,799	27,549	2,445	4,805
Salaries and wages, total.....	\$293,046	\$261,276	\$8,746	\$23,024
Total expenses other than salaries and wages.....	\$167,097	\$121,806	\$9,613	\$35,678
Total cost of work done during the year, including receipts for use of studio facilities, receipts for laboratory work, and value of other work done.....	\$460,143	\$383,082	\$18,359	\$58,702
ESTABLISHMENTS REPORTING DETAILED STATISTICS				
Number of establishments.....	224	100	82	42
All employees:				
Number (average for the year).....	34,041	27,549	1,855	4,637
Number, by month:				
January.....	36,286	29,965	1,729	4,592
February.....	34,218	27,754	1,799	4,665
March.....	35,126	28,607	1,785	4,734
April.....	34,795	28,342	1,804	4,640
May.....	36,139	29,434	1,831	4,874
June.....	35,827	29,093	1,930	4,804
July.....	35,593	28,607	2,194	4,792
August.....	33,459	27,071	1,816	4,572
September.....	32,129	25,840	1,829	4,460
October.....	33,462	27,068	1,879	4,505
November.....	31,358	24,977	1,827	4,554
December.....	30,129	23,834	1,857	4,438
Number of employees for pay period ended nearest Oct. 15:				
All employees.....	33,452	27,068	1,879	4,505
Male.....	26,614	21,757	1,399	3,458
Female.....	6,838	5,311	480	1,047
Production department employees.....	25,977	20,822	1,212	3,943
Professional and technical, total.....	8,020	6,616	792	812
Male.....	6,594	5,370	689	635
Female.....	1,426	1,246	103	77
All other production department employees, total.....	17,957	14,206	420	3,331
Male.....	15,800	12,827	328	2,647
Female.....	2,157	1,379	94	684
Administrative department employees.....	7,475	6,246	667	562
Executive, professional, and technical, total.....	1,106	721	277	108
Male.....	948	621	233	94
Female.....	158	100	44	14
All other administrative department employees, total.....	6,369	5,525	390	454
Male.....	3,272	2,939	151	182
Female.....	3,097	2,586	239	272
Salaries and wages, total.....	\$289,801	\$261,276	\$6,232	\$22,293
Production department employees, total.....	243,165	210,568	4,306	19,291
Professional and technical.....	140,507	135,410	2,746	2,351
All other production department employees.....	102,658	84,158	1,560	16,940
Administrative department employees, total.....	46,636	41,708	1,926	3,002
Executive, professional, and technical.....	19,409	16,882	1,086	1,441
All other administrative department employees.....	27,227	24,826	840	1,561
Total expenses other than salaries and wages.....	\$163,171	\$121,806	\$7,039	\$34,326
Studio materials and supplies.....	51,836	26,609	2,489	22,649
Electrical energy purchased.....	996	724	58	214
Payments for rights and royalties (including story and music rights).....	14,805	13,161	323	1,321
Cost of contract and commission work.....	20,204	19,153	996	55
All other current expenses except salaries and wages.....	76,330	62,070	3,173	10,087
Total cost of work done during the year, including receipts for use of studio facilities, receipts for laboratory work, and value of other work done.....	\$452,972	\$383,082	\$13,271	\$56,619
Expenditures for plant and equipment:				
New plant and equipment.....	\$14,362	\$11,558	\$993	\$1,801
Construction and major alterations of fixed plants.....	6,800	6,049	410	341
Buildings.....	6,425	5,696	403	336
Other construction.....	375	353	7	5
Machinery and equipment.....	7,562	5,519	583	1,460
Production machinery and equipment.....	5,391	3,584	482	1,325
Other machinery and equipment.....	2,171	1,935	101	135
Used plant and equipment, and land.....	1,080	844	157	59
Number of highway-type motor vehicles owned or leased:				
Trucks.....				
By manufacturer's rated capacity:				
Under 1 1/2 tons.....	609	543	53	13
1 1/2 tons.....	216	176	33	8
Over 1 1/2 tons and less than 3 1/2 tons.....	170	155	11	4
3 1/2 tons and less than 5 tons.....	74	68	5	1
5 tons and over.....	50	56	2	1
By body type:				
Van.....	89	87	2	1
Stake or platform.....	11	9	2	1
Panel or light delivery.....	278	273	4	1
All other trucks.....	200	161	30	9
Truck tractors.....	120	100	17	3
Trailers and semitrailers.....	10	10	3	2

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TABLE 4.—WORK DONE DURING THE YEAR, TOTALS FOR THE UNITED STATES: 1947 AND 1939

[Money figures in thousands of dollars]

TYPE OF WORK	1947		1939	
	Number	Cost of work done during the year ¹	Number	Cost of work done during the year ¹
Motion pictures, total		\$469,143		\$215,790
Theatrical films, total		352,539		186,776
Negative films:				
Feature subjects, 3,000 ft. or over in length:				
Color-process.....	68	43,703	27	14,256
Black-and-white.....	348	165,432	493	117,890
Short subjects (other than news reels), under 3,000 ft. in length:				
Color-process.....	253	4,417	125	1,723
Black-and-white.....	187	2,344	n.a.	4,262
News reels.....		5,344		4,441
Positive films (cost, excluding cost of producing negatives): ²				
Color-process.....		4,690		6,414
Black-and-white.....		6,718		
Unfinished production (cost of work done during the year).....		119,892		37,756
Nontheatrical films, total		17,537		6,873
Advertising films:				
Color-process.....		1,929		961
Black-and-white.....		2,461		742
Educational films:				
Color-process.....		1,729		2,118
Black-and-white.....		2,497		2,698
Industrial films:				
Color-process.....		1,768		265
Black-and-white.....		3,040		1,879
Other films.....		551		2,426
Unfinished production (cost of work done during the year).....		3,262		543
Receipts for use of studio facilities.....		26,720		1,420
Receipts for laboratory work (including developing and printing done for others).....		53,329		18,594
Value of other work done.....		10,027		2,337

n.a.—Not available.

¹ Represents cost of producing motion-picture films, receipts for use of studio facilities, receipts for laboratory work, and value of other work done.

² Represents the cost of positive films made during the year by those establishments which performed laboratory work in connection with the production of theatrical films.

Data on cost of positive films made by outside laboratories are included in "Receipts for laboratory work."

³ Probably some "Educational films" were included as "Other films."