

Insulated Wire and Cable: 2006

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SUMMARY OF FINDINGS

In 2006, the total value of manufacturers' shipments of copper insulated wire and cable increased by 37.4 percent to \$17.9 billion from \$13.0 billion in 2005. Quantity of shipments of aluminum insulated wire and cable shows a 5.7-percent increase for 2006, totaling 451.6 million pounds, up from the 2005 total of 427.2 million pounds. Copper magnet wire increased to \$1.7 billion, up 53.8 percent from \$1.1 billion in 2005. In 2006 insulated optical fiber cable increased by 7.2 percent to \$1,241.3 million, from the 2005 value of shipment totaling \$1,158.8 million. Optical fiber increased 8.7 percent to \$489.4 million, from the 2005 total of \$450.3 million.

Address inquiries concerning these data to Investment Goods Industries Branch, Manufacturing and Construction Division, (MCD), Washington, DC 20233-6900 or call Amanda Ganster, 301-763-4642.

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

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Economics and Statistics Administration
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Table 1. Summary of Shipments of Insulated Wire and Cable: 2001 to 2006
 [Value in millions of dollars]

Product code	Product description	2006	2005	2004	2003	2002	2001
	Insulated wire and cable 1/.....	21,480.3	15,865.1	13,233.8	11,441.5	11,944.8	16,873.4
335929A	Electronic wire and cable.....	3,309.6	2,748.2	2,614.3	2,358.8	2,576.2	2,657.5
335929B	Telephone and telegraph wire and cable.....	2,545.2	r/ 1,590.1	957.7	1,276.0	1,290.9	2,074.4
3359291	Power wire and cable 2/.....	2,875.2	2,256.2	1,810.4	1,484.5	1,466.0	1,545.8
3359291 pt.	Portable power cable 2/.....	(NA)	(NA)	(D)	(D)	117.9	137.9
335929C	Control and signal wire and cable.....	446.7	291.6	(D)	(D)	208.0	197.3
335929D	Building wire and cable.....	7,247.7	4,835.2	3,707.3	2,433.8	2,302.4	2,121.1
331491F	Apparatus wire and cordage.....	553.6	509.9	560.6	671.9	629.2	735.4
335929E	Other insulated wire and cable.....	938.3	r/ 810.6	600.1	519.8	604.3	675.0
331491H	Magnet wire.....	1,833.3	1,214.7	1,120.7	957.3	980.0	1,059.4
3359210	Insulated optical fiber cable.....	1,241.3	1,158.3	886.3	944.4	1,282.5	3,646.2
327215A	Optical fiber.....	489.4	r/ 450.3	502.3	449.1	487.4	2,023.4

D Withheld to avoid disclosing data for individual companies. NA Not available. pt. Part. r/Revised by 5 percent or more from previously published data.

1/Detail may not add to total due to rounding.

2/Beginning in 2005, part of product code 3359291, "Portable power cable," is included with the rest of product code 3359291, "Power wire and cable."

Table 2. Shipments of Copper Insulated Wire and Cable: 2006 and 2005
 [Shipments in thousands of pounds. Value in thousands of dollars]

		Shipments, including interplant transfers 1/						
		2006			2005			
Product code	Product description	No. of cos.	Copper content weight 2/	Total Value 2/	No. of cos.	Copper content weight 2/	Total Value 2/	
335929 pt.	Insulated wire and cable (except magnet wire and optical wire).....	(NA)	2,789,562	17,916,197	(NA)	2,995,129	13,041,736	
335929A1	Electronic wire and cable.....	66	b/ 264,723	a/ 3,309,589	69	c/ 254,186	c/ 2,748,171	
	Flexible coaxial cable, armored or unarmored:							
335929A130	135 C and over.....	10	2,573	a/ 83,735	11	c/r/ 3,996	c/r/ 84,263	
335929A140	Under 135 C.....	19	32,326	554,735	20	b/ 26,787	b/ 392,165	
	Hookup wire (single conductor, shielded and nonshielded):							
335929A170	135 C and over temperature rating.....	18	b/ 14,374	b/ 218,170	18	c/ 12,953	c/ 159,518	
335929A180	Under 135 C temperature rating.....	27	c/ 69,811	c/ 438,236	31	a/ 58,664	a/ 359,897	
	Multiconductor electronic wire and cable (shielded and nonshielded):							
335929A190	Flat and ribbon cable.....	13	b/ 3,576	73,248	17	c/r/ 3,369	c/r/ 65,283	
	Other multiconductor electronic wire and cable:							
	Shielded:							
335929A1A0	135 C and over temperature rating.....	21	(D)	(D)	20	(D)	(D)	
335929A1B0	Under 135 C temperature rating.....	28	a/ 43,452	414,814	30	c/r/ 43,385	c/r/ 342,375	
	Nonshielded:							
335929A1C0	135 C and over temperature rating.....	10	(D)	(D)	8	(D)	(D)	
335929A1D0	Under 135 C temperature rating.....	22	36,093	279,289	22	c/r/ 34,414	c/ 238,481	
335929A1 pt.	Other electronic wire and cable.....	17	35,583	926,899	19	r/ 46,572	r/ 862,326	
335929B	Telephone and telegraph wire and cable.....	20	b/ 358,801	b/ 2,545,176	20	b/ 358,704	b/r/ 1,590,129	
335929B120	Station wire and cable.....	8	b/ 13,109	b/ 73,691	8	b/r/ 13,627	b/r/ 56,417	
335929B140	Inside wiring cable.....	8	a/ 88,488	706,089	9	c/r/ 63,898	c/r/ 480,132	
335929B180	Other telephone and telegraph wire and cable.....	14	257,204	1,765,396	15	a/r/ 281,179	a/r/ 1,053,580	
335929I	Power wire and cable.....	19	315,030	2,875,244	21	c/r/ 342,085	c/ 2,256,177	
335929I1810	Paper insulated cable (all voltages, all types).....	1	(D)	(D)	1	(D)	(D)	
	Plastic and rubber insulated:							
	2 kV or less:							
335929I1820	Portable welding cable.....	6	a/ 18,507	b/ 81,482	7	a/ 18,244	b/ 55,099	
335929I1830	Underground distribution cable (UD, URD).....	7	8,321	a/ 523,733	7	a/ 8,196	b/ 421,158	
335929I1840	Thermoplastic insulated power cable.....	9	c/ 24,264	c/ 155,929	9	a/r/ 29,134	b/r/ 111,761	
	Thermoset insulated:							
335929I1850	Armored, rubber and cross linked.....	6	a/ 8,928	a/ 64,220	6	c/r/ 10,721	c/r/ 52,692	
335929I1860	Unarmored, rubber.....	5	c/ 23,328	b/ 98,719	6	a/r/ 20,802	a/r/ 70,291	
335929I1870	Unarmored, cross linked.....	6	16,465	a/ 98,574	6	a/ 13,560	a/ 58,425	
335929I1890	Weatherproof cable.....	4	(D)	(D)	4	(D)	(D)	
335929I1891	Service drop cable, thermoset and thermo-plastic insulated.....	4	(D)	(D)	4	(D)	(D)	
	Over 2 kV:							
335929I18C0	Underground distribution cable (UD, URD), all insulations (jacketed and unjacketed).....	6	61,364	610,278	7	a/ 61,693	b/ 480,032	
	Thermoset insulated power cable, excluding underground:							
	2 kV to 15 kV:							
335929I18E0	Armored, rubber and cross-linked.....	7	a/ 30,981	a/ 199,994	7	c/r/ 24,155	c/r/ 116,764	
335929I18F0	Unarmored, rubber.....	6	a/ 60,491	a/ 364,487	6	c/r/ 60,760	c/r/ 244,470	
335929I18G0	Unarmored, cross-linked.....	4	3,424	20,725	5	b/r/ 3,931	b/r/ 14,596	
335929I18H0	Over 15.1 kV (rubber and cross-linked).....	4	(D)	(D)	4	(D)	(D)	
335929I18I0	Other power wire and cable, including portable.....	3	a/ 27,094	b/ 214,513	3	c/r/ 29,937	c/r/ 197,394	
335929C	Control and signal wire.....	19	b/ 51,617	b/ 446,666	21	c/r/ 46,139	c/ 291,552	
335929C110	Signal wire and cable.....	14	b/ 27,566	b/ 242,139	16	c/r/ 26,595	c/r/ 174,238	
	Control wire and cable, excluding elevator cable:							
335929C120	Thermoset insulated.....	8	a/ 6,291	a/ 77,449	8	c/r/ 5,710	c/r/ 50,152	
335929C130	Thermoplastic insulated.....	10	a/ 17,760	b/ 127,078	10	c/ 13,834	c/ 67,162	
335929D	Building wire and cable.....	22	1,532,858	7,247,665	22	c/ 1,700,219	c/ 4,835,179	
	Building wire and cable having underwriters' labels:							
	Thermoset insulated:							
335929D110	Cross-linked polyethylene (XHHW).....	12	46,101	375,075	11	c/ 44,654	c/ 177,371	
335929D120	Cross-linked polyethylene (XLP, USE).....	12	14,226	101,804	10	c/ 20,691	c/ 73,149	
	Thermoplastic insulated:							
335929D130	Flame-retardant nylon (THHN, THWN).....	13	743,015	3,082,594	14	c/ 779,550	c/ 1,935,254	
335929D140	Moisture and heat resistant (TW, THW).....	12	5,087	18,918	12	c/r/ 3,017	c/r/ 11,456	
335929D150	Service entrance cable (SER, SEU, ASE).....	9	b/ 13,168	237,317	9	c/ 16,848	c/ 178,179	

Table 2. Shipments of Copper Insulated Wire and Cable: 2006 and 2005
 [Shipments in thousands of pounds. Value in thousands of dollars]

		Shipments, including interplant transfers 1/						
		2006			2005			
Product code	Product description	No. of cos.	Copper content weight 2/	Total Value 2/	No. of cos.	Copper content weight 2/	Total Value 2/	
Nonmetallic branch-circuit and under-ground feeder:								
335929D160	Type NM-B.....	7	537,725	2,355,303	8	b/ 652,789	c/ 1,689,028	
335929D170	Type UF and NMC (corrosion resistant).....	8	40,558	200,134	10	c/ 47,735	c/ 145,261	
335929D190	Other building wire and cable.....	10	132,978	876,520	11	a/ 134,935	b/ 625,481	
331491F	Apparatus wire and cordage 3/.....	31	a/ 89,085	a/ 553,578	32	c/r/ 106,190	c/ 509,908	
Flexible cordage:								
331491F110	Thermoset insulated.....	9	b/ 15,528	b/ 111,200	9	b/r/ 19,962	b/ 100,260	
331491F120	Thermoplastic, including thermoplastic elastomers.....	11	a/ 2,891	a/ 19,925	11	c/ 3,087	c/ 15,276	
331491F180	Extension cord sets.....	4	a/ 2,099	a/ 25,680	4	a/r/ 3,949	a/r/ 30,595	
331491F190	Fixed power supply cords.....	11	1,326	9,007	11	c/r/ 1,061	c/r/ 8,058	
331491F1A0	Detachable power supply cords.....	6	1,902	6,074	6	b/r/ 1,435	b/r/ 4,563	
331491F1B0	Retractable power cords and other.....	8	461	20,904	8	b/r/ 424	a/ 16,134	
Apparatus wire:								
331491F130	Appliance fixture wire.....	10	15,138	98,502	11	c/ 18,623	c/ 85,502	
331491F145	Appliance wiring material 14 gauge and larger, (including motor lead and transformer lead wire), thermoset and thermoplastic insulated.....	10	b/ 14,053	a/ 63,314	11	c/r/ 24,797	c/ 114,458	
331491F160	Submersible pump cable.....	9	17,204	102,332	9	b/ 15,853	b/ 69,736	
331491F170	Other apparatus wire and cordage, including machine tool wire.....	14	18,483	96,640	14	c/r/ 16,999	c/r/ 65,326	
335929E	Other insulated wire and cable.....	37	b/ 177,448	b/ 938,279	40	c/r/ 187,606	c/r/ 810,620	
Automotive:								
335929E110	Bulk automotive primary wire.....	12	b/ 93,322	b/ 337,687	12	c/ 98,770	c/ 259,425	
335929E120	Bulk battery cable.....	7	a/ 6,935	a/ 29,046	7	b/ 8,859	b/ 25,970	
335929E130	Bulk ignition wire.....	5	(D)	(D)	7	(D)	(D)	
335929E140	Other automotive wire and cable.....	7	(D)	(D)	9	(D)	(D)	
Airframe, shipboard and ground support cable, excluding coaxial cable and ignition cable:								
335929E150	Airframe and missile, including ground support cable.....	8	a/ 4,752	44,229	8	a/ 4,193	r/ 44,229	
335929E160	Shipboard cable.....	5	c/ 3,208	b/ 19,064	5	a/ 3,173	a/r/ 19,064	
335929E170	Other insulated or covered wire and cable, n.e.c.	19	c/ 59,787	c/ 320,032	22	c/r/ 60,386	c/r/ 320,032	

D Withheld to avoid disclosing data for individual companies. NA Not available. n.e.c. Not elsewhere classified. pt. Part. r/Revised by 5 percent or more from previously published data.

1/Interplant transfers for 2006 totaled \$87,544 and for 2005 totaled \$67,240.

2/Aluminum content for 2006 totaled 451,623 thousand pounds and for 2005 totaled 427,200 thousand pounds (not included in copper content weights). Aluminum shipment values are included in total value. See Table 3 for additional details.

3/Data include the following: (a) all known establishments which insulate wire and cable and then fabricate it into finished products, NAICS product class 331491E; (b) establishments from NAICS product class 334290, that manufacture wire, cord, and flexible cord sets from purchased insulated wire.

Note: Data presented in this table are for copper content insulated wire and cable. See Table 3 for aluminum content information. Percent of estimation of each item is indicated as follows: a/10 to 25 percent of this item is estimated. b/26 to 50 percent of this item is estimated. c/Over 50 percent of this item is estimated.

Table 3. Aluminum Shipments of Selected Insulated Wire and Cable: 2006 and 2005
 [Aluminum gross weight shipments in thousands of pounds]

Product code	Product description	2006		2005	
		No. of cos.	Aluminum content 1/2/	No. of cos.	Aluminum content 1/2/
335929 pt.	Insulated wire (except magnet wire).....	(NA)	451,623	(NA)	r/ 427,200
335929A	Electronic wire and cable.....	1	(D)	2	(D)
335929B	Telephone and telegraph wire and cable.....	-	-	-	-
3359291	Power wire and cable.....	8	308,137	8	r/ 311,667
3359291830	Underground distribution cable, all insulations-- 2 kV or less.....	5	195,778	5	194,317
3359291890	Weatherproof cable.....	3	2,922	3	r/ 2,041
3359291891	Service drop cable, thermoset and thermoplastic insulated.....	2	39,015	3	42,485
33592918C0	Underground distribution cable, all insulations-- over 2 kV.....	6	50,847	6	46,937
33592918F0	Thermoset insulated power cable, unarmored, rubber--2 kV to 15 kV.....	4	5,687	4	r/ 4,751
3359291 pt.	Other power wire and cable.....	7	13,888	7	r/ 21,136
335929D1	Building wire and cable.....	7	132,620	7	105,120
335929D110	Thermoset insulated, cross-linked polyethylene (XHHW).....	4	(D)	5	(D)
335929D150	Service entrance cable (SER, SEU, ASE).....	3	(D)	5	(D)
335929D1 pt.	Other building wire and cable.....	7	39,456	6	34,543
335929C1,	Other insulated wire and cable.....	4	(D)	5	(D)

- Represents zero. D Withheld to avoid disclosing data for individual companies. NA Not available.
 pt. Part. r/Revised by 5 percent or more from previously published data.

1/Gross weight includes insulating materials, but excludes packing materials.
 2/Value of aluminum content is included in total value of Table 2.

Table 4. Shipments of Magnet Wire (Copper and Aluminum), Including Interplant Transfers: 2006 and 2005
[Gross weight in thousands of pounds. Value in thousands of dollars]

Product code	Product description	Shipments, including interplant transfers 1/					
		No. of cos.	2006		No. of cos.	2005	
			Gross weight 2/	Value		Gross weight 2/	Value
331491H	Magnet wire.....	17	564,402	1,833,327	21	569,901	1,214,695
	Class 105 and below:						
331491H110	7 AWG and larger round, including all square and rectangle, film coated.....	3	(D)	(D)	3	9,501	17,031
331491H120	8 to 21 AWG, film coated.....	3	(D)	(D)	4	55,796	81,652
331491H135	22 to 33 AWG, film coated.....	6	2,285	9,902	6	1,857	6,418
	Class 130 to 155:						
331491H160	8 to 21 AWG, film coated.....	7	9,451	35,300	9	13,665	30,117
331491H170	22 to 32 AWG, film coated.....	9	16,180	62,179	11	26,735	63,928
331491H180	33 to 44 AWG, film coated.....	7	7,873	45,168	10	10,960	42,205
	Class 180 and above:						
331491H190	7 AWG and larger round, including all square and rectangle, film coated.....	4	(D)	(D)	4	34,206	78,113
331491H1A0	8 to 21 AWG, film coated.....	7	(D)	(D)	10	269,544	506,856
331491H1B0	22 to 32 AWG, film coated.....	8	96,402	334,130	11	98,610	219,103
331491H1C0	33 to 44 AWG, film coated.....	6	(D)	(D)	9	(D)	(D)
331491H1C2	Miscellaneous film coated, n.e.c.	-	-	-	-	-	-
	Nonfilm coated (fibrous):						
331491H1D0	Class 130 and below.....	3	(D)	(D)	2	(D)	(D)
331491H1F0	Class 155 and above.....	5	(D)	(D)	5	6,808	24,100
	Nonfilm coated (tape):						
331491H1E0	Class 130 and below.....	4	(D)	(D)	3	18,820	40,334
331491H1G0	Class 155 and above.....	4	10,277	40,499	5	8,244	22,438
331491G1H0	Miscellaneous nonfilm coated, n.e.c.	2	(D)	(D)	2	(D)	(D)

- Represents zero. D Withheld to avoid disclosing data for individual companies. n.e.c. Not elsewhere classified.
r/Revised by 5 percent or more from previously published data.

1/Interplant transfers for 2006 and 2005 were withheld to avoid disclosing data for individual companies.

2/Gross weight includes insulating materials, but excludes packing materials.

Table 5. Value of Shipments of Fiber Optic Cable: 2006 and 2005
 [Thousands of dollars]

Product code	Product description	2006		2005	
		No. of cos.	Value	No. of cos.	Value
33592101	Insulated optical fiber cable.....	26	1,241,255	28	1,158,333
33592101 pt.	Communication applications.....	20	1,221,641	21	1,149,001
	Single-mode stepped-index:				
3359210125	Dispersion shifted.....	9	173,004	10	r/ 191,610
3359210128	Dispersion unshifted.....	18	691,899	19	640,372
3359210129	Multimode index.....	18	356,738	18	317,019
3359210434	Other applications.....	12	19,614	11	r/ 9,332

pt. Part. r/Revised by 5 percent or more from previously published data.

Table 6. Value of Shipments of Optical Fiber: 2006 and 2005
 [Thousands of dollars]

Product code	Product description	2006		2005	
		No. of cos.	Value	No. of cos.	Value
	Optical fiber for data and nondata transmission.....	14	489,424	14	r/ 450,324
327215B235	Optical fiber used for data transmission.....	8	469,848	10	r/ 434,252
327215B238	Optical fiber used for nondata transmission.....	7	19,576	5	16,072

r/Revised by 5 percent or more from previously published data.

Table 7. Shipments, Exports, and Imports of Insulated Wire and Cable: 2006
 [Quantity in thousands of units. Value in thousands of dollars]

Product code	Product description	Manufacturers' shipments (f.o.b. plant)		Exports of domestic merchandise 1/ 2/		Imports for consumption 1/ 3/	
		Quantity	Value	Quantity	Value	Quantity	Value 4/
331491H110, 120, 130, 140, 150, 160, 170, 180, 190, 331491G1A0, 1B0, 1C0, 1I0, 1D0, 1F0, 1E0, 1G0, 1H0	Magnet wire (copper).....	505,736	1,711,314	72,971	399,827	41,546	344,155
331491H110, 120, 130, 140, 150, 160, 170, 180, 190, 331491H1A0, 1B0, 1C0, 1I0, 1D0, 1E0, 1F0, 1G0, 1H0	Magnet wire (aluminum).....	58,666	122,013	15,048	108,421	2,381	18,574
335929A100, 120, 130, 140, 150	Coaxial cable.....	70,482	1,586,925	47,478	496,409	67,515	552,922
3359210125, 128, 131, 134, 3359210434	Optical fiber cables.....	6,248,341	1,241,255	529,174	355,744	849,082	468,604
327215B235, 238	Optical fibers, bundles, and cables.....	(X)	489,424	1,523,101	212,222	85,278	30,057
335929B110, 120, 130, 140, 150, 160, 170, 180, 335929E150, 160	Other wire and cable used for telecommunications (except fiber optics).....	270,822	1,828,689	(NA)	(NA)	37,740	819,293

NA Not available. X Not applicable.

1/For comparison of North American Industry Classification System (NAICS)-based product codes with Schedule B export codes and HTSUSA import codes, see Table 8.

2/Source: Census Bureau report EM 545, U.S. Exports.

3/Source: Census Bureau report IM 145, Imports for Consumption.

4/Dollar value represents the c.i.f. (cost, insurance, and freight) value at the first point of entry in the United States plus U.S. import duties.

Table 8. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2006

Product code	Product description	Export code 1/	Import code 2/
331491G110, 120, 130, 140, 150, 160, 170, 180, 190, 1A0, 1B0, 1C0, 1D0, 1E0, 1F0, 1G0, 1H0, 1I0	Magnet wire (copper).....	8544.11.0020 8544.11.0030 8544.11.0050	8544.11.0020 8544.11.0030 8544.11.0050
331491G110, 120, 130, 140, 150, 160, 170, 180, 190, 1A0, 1B0, 1C0, 1D0, 1E0, 1F0, 1G0, 1H0, 1I0	Magnet wire (aluminum).....	8544.19.0000	8544.19.0000
335929A100, 120, 130, 140, 150	Coaxial cable.....	8544.20.0000	8544.20.0000
3359210125, 128, 131, 134, 434	Optical fiber cable.....	8544.70.0000	8544.70.0000
327215A235, 238	Optical fibers, optical fiber bundles, and cables.....	9001.10.0000	9001.10.0075 9001.10.0085
335929B110, 120, 130, 140, 150 160, 170 180	Other wire and cable used for telecommunications (except fiber optics).....	(NA)	8544.41.4000 8544.49.4000 8544.51.4000 8544.51.7000
335929E150, 160			

NA Not available.

1/Source: 2006 edition, Harmonized System-Based Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/Source: Harmonized Tariff Schedule of the United States, Annotated (2006).

Appendix.

General CIR Survey Information, Explanation of General Terms and Historical Note

GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

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

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

Listed below are the NAICS sectors:

- 21 Mining
- 22 Utilities
- 23 Construction
- 31-33 Manufacturing
- 42 Wholesale Trade
- 44-45 Retail Trade
- 48-49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Educational Services
- 62 Health Care and Social Assistance
- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services
- 81 Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

EXPLANATION OF GENERAL TERMS

Capacity. The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

Consumption. Materials used in producing or processing a product or otherwise removing the product from the inventory.

Exports. Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

Gross shipments. The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

Interplant transfers. Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

Inventories. The quantity or value of finished goods, work in progress, and materials on hand.

Machinery in place. The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

Net receipts. Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

Production. The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

Quantities produced and consumed. Quantities of each type of product produced by a company for internal consumption within that same company.

Quantity and value of new orders. The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

Quantity and value of shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and

returns. Shipments to a company's own branches are assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Stocks. Total quantity of ending finished inventory.

Unfilled orders (backlog). Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

HISTORICAL NOTE

Data on insulated wire have been collected by the Census Bureau since 1965. Historical data may be obtained from Current Industrial Reports available at your local Federal Depository Library.