

MA335J(04)-1

## Current Industrial Reports

Current data are released electronically on Internet for all individual surveys as they become available. Use: <http://www.census.gov/mcd/>. Individual reports can be accessed by choosing "Current Industrial Reports (CIR)," clicking on "CIRs by Subsector;" then choose the survey of interest. Follow the menu to view the PDF file or to download the worksheet file (XLS format) to your personal computer.

These data are also available on Internet through the U.S. Department of Commerce and STAT-USA by subscription. The Internet address is: [www.stat-usa.gov/](http://www.stat-usa.gov/). Follow the prompts to register. Also, you may call 202-482-1986 or 1-800-STAT-USA, for further information.

### SUMMARY OF FINDINGS

In 2004, the total value of manufacturers' shipments of copper insulated wire and cable increased by 18.0 percent to \$10.7 billion from \$9.1 billion in 2003. Quantity of shipments of aluminum insulated wire and cable shows a 12.6-percent increase for 2004, totaling 498.2 million pounds, up from the 2003 total of 442.3 million pounds. Copper magnet wire increased to \$1.0 billion, up 17.1 percent from \$875.0 million 2003. Aluminum magnet wire increased 16.2 percent in 2004 to \$95.6 million, from the 2003 value of \$82.3 million. In 2004 insulated optical fiber cable decreased by 6.2 percent to \$886.3 million, from the 2003 value of shipment totaling \$944.4 million. Optical fiber increased 11.8 percent to \$502.3 million, from the 2003 total of \$449.1 million.

Address inquiries concerning these data to Investment Goods Industries Branch, Manufacturing and Construction Division, (MCD), Washington, DC 20233-6900 or call Keith McKenzie, 301-763-4777.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-763-4673.

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

*Helping You Make Informed Decisions*

U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU

Table 1. Summary of Shipments of Insulated Wire and Cable: 1999 to 2004  
 [Value in millions of dollars]

Product class code	Product description	2004	2003	2002	2001	2000	1999
	Insulated wire and cable .....	13,233.8	11,441.5	11,944.8	16,873.4	19,751.3	16,415.6
335929A	Electronic wire and cable .....	2,614.3	2,358.8	2,576.2	2,657.5	3,530.8	2,876.2
335929B	Telephone and telegraph wire and cable ....	957.7	1,276.0	1,290.9	2,074.4	2,663.1	2,117.9
3359291 pt.	Power wire and cable .....	1,810.4	1,484.5	1,466.0	1,545.8	1,682.9	1,657.1
3359291 pt.	Portable power cable .....	(D)	(D)	117.9	137.9	25.6	31.4
335929C	Control and signal wire and cable .....	(D)	(D)	208.0	197.3	172.7	226.9
335929D	Building wire and cable .....	3,707.3	2,433.8	2,302.4	2,121.1	2,379.6	2,812.6
331491F	Apparatus wire and cordage .....	560.6	671.9	629.2	735.4	857.5	838.3
335929E	Other insulated wire and cable .....	600.1	519.8	604.3	675.0	660.8	440.0
331491H	Magnet wire .....	1,120.7	957.3	980.0	1,059.4	1,232.3	1,279.7
3359210	Insulated optical fiber cable .....	886.3	r/ 944.4	1,282.5	3,646.2	4,070.5	2,656.4
327215A	Optical fiber .....	502.3	449.1	487.4	2,023.4	2,475.5	1,479.1

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

Table 2. Shipments of Copper Insulated Wire and Cable: 2004 and 2003  
 [Shipments in thousands of pounds. Value in thousands of dollars]

Product code	Product description	No. of cos.	Shipments, including interplant transfers 1/			
			2004		2003	
			Copper content 2/	Value	Copper content 2/	Value
335929 pt.	Insulated wire and cable (except magnet wire and optical wire).....	(NA)	2,932,354	10,724,563	2,692,848	9,090,666
335929A	Electronic wire and cable .....	82	255,292	2,614,288	237,884	2,358,828
	Coaxial cable, armored or unarmored:					
335929A100	Rigid 3/.....	2	(D)	(D)	(D)	(D)
335929A120	Semi rigid 3/.....	15	(D)	(D)	(D)	(D)
	Flexible:					
335929A130	135 C and over .....	12	3,329	98,432	3,624 r/	92,646
335929A140	Under 135 C .....	24	23,985	394,822	23,122 r/	351,496
335929A150	CATV/broadcast coaxial cable 3/.....	8	(D)	(D)	(D)	(D)
335929A160	Antenna lead-in wire 3/.....	5	42,873	801,706	r/ 37,984 r/	723,474
	Hookup wire (single conductor, shielded and nonshielded):					
335929A170	135 C and over temperature rating.....	22	11,195	155,444	9,214	149,915
335929A180	Under 135 C temperature rating.....	32	76,667	391,030	69,542	356,990
	Multiconductor electronic wire and cable (shielded and nonshielded):					
335929A190	Flat and ribbon cable .....	18 c/	3,520 c/	65,753 a/	4,862 r/	64,071
	Other multiconductor electronic wire and cable:					
	Shielded:					
335929A1A0	135 C and over temperature rating .....	24 a/	19,243	141,630	21,440	141,851
335929A1B0	Under 135 C temperature rating .....	34 a/	34,351	285,355	33,200	264,706
	Nonshielded:					
335929A1C0	135 C and over temperature rating .....	11 b/	5,920	55,448	5,093	44,091
335929A1D0	Under 135 C temperature rating .....	28	34,029	225,268	29,803	169,588
335929B	Telephone and telegraph wire and cable .....	25	310,769	957,742	331,585	1,275,964
335929B110	Jumper and distributing frame wire.....	3	(D)	(D)	(D)	(D)
335929B120	Station wire and cable .....	10	10,509	32,687	9,402	36,583
335929B130	Telephone cord sets and cordage.....	6	(D)	(D)	1,390	12,059
335929B140	Inside wiring cable .....	12	64,267	419,559	54,958	426,487
335929B150	Drop and bridle and duct wire.....	3	(D)	(D)	(D)	(D)
335929B160	Rural and urban distribution wire and cable.....	2	(D)	(D)	(D)	(D)
335929B170	Polyethylene covered exchange area and toll cable (PIC and PULP insulated) .....	3	(D)	(D)	196,276	564,170
335929B180	Other telephone and telegraph wire and cable.....	7	(D)	(D)	r/ 12,919 r/	59,863
3359291 pt.	Power wire and cable .....	26	298,774	1,810,439	299,859	1,484,475
3359291810	Paper insulated cable (all voltages, all types).....	1	(D)	(D)	(D)	(D)
	Plastic and rubber insulated:					
	2 kV or less:					
3359291820	Portable welding cable .....	8 b/	14,947 b/	42,497 a/	15,846 a/	38,207
3359291830	Underground distribution cable (UD, URD) .....	7 c/	8,303	388,761	7,856	301,849
3359291840	Thermoplastic insulated power cable .....	9 b/	27,203 b/	83,519 a/	35,934 a/r/	73,161
	Thermoset insulated:					
3359291850	Armored, rubber and cross linked .....	7	14,757	60,484	16,361	59,131
3359291860	Unarmored, rubber .....	6	20,975	64,241	r/ 26,089 r/	77,871
3359291870	Unarmored, cross linked .....	7	10,929 a/	37,145 a/	5,931 b/	16,905
3359291880	Rubber (R, RH, RHH, RHW).....	2	(D)	(D)	(D)	(D)
3359291890	Weatherproof cable .....	4	1,724	7,501	1,827 r/	7,346
3359291891	Service drop cable, thermoset and thermoplastic insulated.....	4 a/	539	80,223 a/	818	65,557
	Over 2 kV:					
33592918C0	Underground distribution cable (UD, URD), all insulations (jacketed and unjacketed) .....	8	55,976	382,085	r/ 44,677 r/	291,121
33592918D0	Thermoplastic insulated power cable, excluding underground.....	5	(D)	(D)	(D)	(D)

Table 2. Shipments of Copper Insulated Wire and Cable: 2004 and 2003  
 [Shipments in thousands of pounds. Value in thousands of dollars]

Product code	Product description	No. of cos.	Shipments, including interplant transfers 1/			
			2004		2003	
			Copper content 2/	Value	Copper content 2/	Value
	Thermoset insulated power cable, excluding underground: 2 kV to 15 kV:					
33592918E0	Armored, rubber and cross-linked .....	7	22,134	91,576	17,774	71,452
33592918F0	Unarmored, rubber .....	8	59,986	216,091	68,197	198,230
33592918G0	Unarmored, cross-linked .....	5	6,190	18,544	5,202	13,535
33592918H0	Over 15.1 kV (rubber and cross-linked).....	4	29,318	155,339	24,352	120,490
33592918I0	Other power wire and cable .....	9	c/ 13,424	c/ 126,806	14,109	r/ 97,677
3359291 pt.	Portable power cable .....	7	(D)	(D)	(D)	(D)
33592918J0	2 kV or less portable cable.....	6	(D)	(D)	(D)	(D)
33592918MO	Over 2 kV portable crosslinked and noncrosslinked....	2	(D)	(D)	(D)	(D)
335929C	Control and signal wire .....	22	(D)	(D)	(D)	(D)
335929C110	Signal wire and cable .....	17	(D)	(D)	(D)	(D)
	Control wire and cable, excluding elevator cable:					
335929C120	Thermoset insulated .....	8	(D)	(D)	(D)	(D)
335929C130	Thermoplastic insulated .....	12	(D)	(D)	(D)	(D)
335929D	Building wire and cable .....	24	1,663,821	3,707,265	1,425,359	2,433,782
	Building wire and cable having underwriters' labels:					
	Thermoset insulated:					
335929D110	Cross-linked polyethylene (XHHW) .....	13	37,422	128,579	36,834	84,093
335929D120	Cross-linked polyethylene (XLP, USE) .....	12	18,979	59,987	20,115	51,305
	Thermoplastic insulated:					
335929D130	Flame-retardant nylon (THHN, THWN) .....	15	778,851	1,491,709	676,815	885,095
335929D140	Moisture and heat resistant (TW, THW) .....	12	a/ 2,997	a/ 6,487	a/ 2,495	a/ 4,223
335929D150	Service entrance cable (SER, SEU, ASE) .....	10	b/ 14,766	153,817	10,118	109,652
	Nonmetallic branch-circuit and underground feeder:					
335929D160	Type NM-B .....	9	593,007	1,227,269	476,799	708,666
335929D170	Type UF and NMC (corrosion resistant) .....	10	46,423	a/ 111,405	40,231	72,255
335929D181	Metallic armored cable (AC type) 4/.....	1	(D)	(D)	(D)	(D)
335929D183	Metallic armored cable (MC type) 4/.....	6	(D)	(D)	(D)	(D)
335929D190	Other building wire and cable 4/.....	10	171,376	528,012	161,952	518,493
331491F	Apparatus wire and cordage 5/.....	42	139,535	560,560	189,938	671,948
	Flexible cordage:					
331491F110	Thermoset insulated .....	11	23,953	78,940	19,066	66,326
331491F120	Thermoplastic, including thermoplastic elastomers.....	15	c/ 12,931	b/ 36,194	a/r/ 24,949	b/r/ 47,247
331491F180	Extension cord sets .....	6	(D)	(D)	c/ 30,190	c/ 143,441
331491F190	Fixed power supply cords .....	12	(D)	(D)	c/ 6,871	c/ 50,744
331491F1A0	Detachable power supply cords .....	4	652	a/ 2,068	599	a/ 1,808
331491F1B0	Retractable power cords and other .....	9	b/ 663	14,430	b/ 794	11,344
	Apparatus wire:					
331491F130	Appliance fixture wire .....	18	b/ 20,657	b/ 90,706	28,299	a/ 83,004
331491F145	Appliance wiring material 14 gauge and larger, including motor lead and transformer lead wire, thermoset and thermoplastic insulated.....	11	a/ 25,957	85,982	a/ 36,200	128,113
331491F160	Submersible pump cable.....	10	c/ 16,198	c/ 44,918	14,718	50,025
331491F170	Other apparatus wire and cordage, including machine tool wire.....	16	a/ 14,547	a/ 54,690	28,252	89,896
335929E	Other insulated wire and cable .....	38	171,525	600,087	133,212	519,753
	Automotive:					
335929E110	Bulk automotive primary wire .....	12	100,832	225,351	69,507	142,242
335929E120	Bulk battery cable.....	6	6,841	17,293	8,373	11,615
335929E130	Bulk ignition wire.....	7	1,938	85,030	1,501	79,203
335929E140	Other automotive wire and cable .....	8	a/ 7,238	56,730	11,482	61,279

Table 2. Shipments of Copper Insulated Wire and Cable: 2004 and 2003  
 [Shipments in thousands of pounds. Value in thousands of dollars]

Product code	Product description	No. of cos.	Shipments, including interplant transfers 1/			
			2004		2003	
			Copper content 2/	Value	Copper content 2/	Value
335929E150	Airframe, shipboard and ground support cable, excluding coaxial cable and ignition cable: Airframe and missile, including ground support cable .....	8	3,007	27,445	1,915	22,650
335929E160	Shipboard cable .....	4 c/	19,993 c/	47,050	6,060	14,801
335929E170	Other insulated or covered wire and cable, n.e.c. ....	15 c/	31,676 c/	141,188 c/	34,374 b/	187,963

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 2004 totaled \$38,406 and for 2003 totaled \$37,309.

2/Aluminum content for 2004 totaled 498,173 thousand pounds and for 2003 totaled 442,324 thousand pounds.

Aluminum shipment values are included in total value. See Table 3 for additional details.

3/Product codes 335929A100, 335929A120, and 335929A150 are combined with product code 335929A160 to avoid disclosing data for individual companies.

4/Product codes 335929D181 and 335929D183 are combined with product code 335929D190 to avoid disclosing data for individual companies.

5/Data include the following: (a) all known establishments which insulate wire and cable and then fabricate it into finished products, NAICS product class 331491E and (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: 2004 and 2003  
 [Aluminum gross weight shipments in thousands of pounds]

Product code	Product description	No. of cos.	2004	2003
			Aluminum content 1/ 2/	Aluminum content 1/ 2/
335929 pt.	Insulated wire (except magnet wire) .....	(NA)	498,173	442,324
335929A	Electronic wire and cable .....	4	(D)	(D)
335929B	Telephone and telegraph wire and cable.....	-	-	-
3359291	Power wire and cable .....	11	328,781	291,336
3359291830	Underground distribution cable, all insulations-- 2 kV or less .....	5	198,491	170,512
3359291890	Weatherproof cable.....	3	1,819	2,164
3359291891	Service drop cable, thermoset and thermoplastic insulated.....	3	40,988	37,883
33592918C0	Underground distribution cable, all insulations-- over 2 kV .....	7	42,481	r/ 34,742
33592918F0	Thermoset insulated power cable, unarmored, rubber-- 2 kV to 15 kV.....	4	5,501	r/ 7,836
3359291 pt.	Other power wire and cable 3/ .....	3	41,320	r/ 40,363
335929D	Building wire and cable.....	6	93,833	82,560
335929D110	Thermoset insulated, cross-linked polyethylene (XHHW) .....	4	(D)	18,210
335929D150	Service entrance cable (SER, SEU, ASE).....	4	(D)	35,911
335929E	Other insulated wire and cable.....	3	(D)	(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.

3/Product codes 3359291840-1890, 18D0-18E0, and 18G0-18I0 are combined as product code 3359291 pt. to avoid disclosing data for individual companies.

Table 4. Copper Shipments of Magnet Wire, Including Interplant Transfers: 2004 and 2003  
[Copper gross weight in thousands of pounds. Value in thousands of dollars]

Product code	Product description	No. of cos.	Shipments, including interplant transfers 1/			
			2004		2003	
			Gross weight 2/	Value	Gross weight 2/	Value
331491H	Magnet wire .....	22	559,836	1,025,059	572,406	875,015
	Class 105 and below:					
331491H110	7 AWG and larger round, including all square and rectangle, film coated .....	5	8,903	12,772	9,683	12,791
331491H120	8 to 21 AWG, film coated .....	4	38,080	42,053	34,160	31,044
331491H130	22 to 32 AWG, film coated .....	6	924	1,624	875	1,157
331491H140	33 to 44 AWG, film coated .....	5	(D)	(D)	(D)	(D)
	Class 130 to 155:					
331491H150	7 AWG and larger round, including all square and rectangle, film coated .....	-	-	-	-	-
331491H160	8 to 21 AWG, film coated .....	11	19,161	29,589	12,117	17,547
331491H170	22 to 32 AWG, film coated .....	12	39,422	71,737	39,046	64,279
331491H180	33 to 44 AWG, film coated .....	11	12,025	43,331	15,095	45,240
	Class 180 and above:					
331491H190	7 AWG and larger round, including all square and rectangle, film coated .....	7	31,297	59,450	37,206	64,946
331491H1A0	8 to 21 AWG, film coated .....	10	262,518	433,043	267,880	332,641
331491H1B0	22 to 32 AWG, film coated .....	11	106,194	172,102	119,390	180,704
331491H1C0	33 to 44 AWG, film coated .....	10	7,810	33,279	6,777	29,913
331491H1I0	Miscellaneous film coated, n.e.c. ....	1	(D)	(D)	(D)	(D)
	Nonfilm coated (fibrous):					
331491H1D0	Class 130 and below .....	3	(D)	(D)	(D)	(D)
331491H1F0	Class 155 and above .....	5	7,101	14,414	7,213	21,124
	Nonfilm coated (tape):					
331491H1E0	Class 130 and below .....	3	(D)	(D)	(D)	(D)
331491H1G0	Class 155 and above .....	5	5,910	16,534	5,246	11,756
331491H1H0	Miscellaneous nonfilm coated, n.e.c. ....	3	(D)	(D)	(D)	(D)

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 2004 totaled 17,278 thousand pounds of copper and 2003 totaled 15,428 thousand pounds of copper.  
2/Gross weight includes insulating materials, but excludes packing materials.

Table 5. Aluminum Shipments of Magnet Wire, Including Interplant Transfers: 2004 and 2003  
 [Aluminum gross weight in thousands of pounds. Value in thousands of dollars]

Product code	Product description	No. of cos.	Shipments, including interplant transfers 1/			
			2004		2003	
			Gross weight 2/	Value	Gross weight 2/	Value
331491H	Magnet wire .....	11	53,046	95,608	52,133	82,293
	Class 105 and below:					
331491H110	7 AWG and larger round, including all square and rectangle, film coated .....	3	(D)	(D)	611	838
331491H120	8 to 21 AWG, film coated .....	4	13,264	18,354	11,463	15,391
331491H130	22 to 32 AWG, film coated .....	1	(D)	(D)	(D)	(D)
331491H140	33 to 44 AWG, film coated .....	-	-	-	-	-
	Class 130 to 155:					
331491H150	7 AWG and larger round, including all square and rectangle, film coated .....	-	-	-	-	-
331491H160	8 to 21 AWG, film coated .....	3	(D)	(D)	(D)	(D)
331491H170	22 to 32 AWG, film coated .....	4	505	1,211	(D)	(D)
331491H180	33 to 44 AWG, film coated .....	-	-	-	-	-
	Class 180 and above:					
331491H190	7 AWG and larger round, including all square and rectangle, film coated .....	5	2,047	4,202	3,266	6,679
331491H1A0	8 to 21 AWG, film coated .....	5	21,526	43,437	25,429	38,514
331491H1B0	22 to 32 AWG, film coated .....	4	(D)	(D)	2,139	4,366
331491H1C0	33 to 44 AWG, film coated .....	-	-	-	-	-
331491H1I0	Miscellaneous film coated, n.e.c. ....	-	-	-	-	-
	Nonfilm coated (fibrous):					
331491H1D0	Class 130 and below .....	-	-	-	-	-
331491H1E0	Class 155 and above .....	2	(D)	(D)	(D)	(D)
	Nonfilm coated (tape):					
331491H1F0	Class 130 and below .....	1	(D)	(D)	(D)	(D)
331491H1G0	Class 155 and above .....	3	2,488	5,078	1,963	3,738
331491H1H0	Miscellaneous nonfilm coated, n.e.c. ....	1	(D)	(D)	(D)	(D)

- Represents zero. D Withheld to avoid disclosing data for individual companies. n.e.c. Not elsewhere classified.

1/Interplant transfers for 2004 totaled 4,098 thousand pounds of aluminum and for 2003 totaled 3,947 thousand pounds of aluminum.

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



Table 6. Value of Shipments of Fiber Optic Cable: 2004 and 2003  
 [Thousands of dollars]

Product code	Product description	No. of cos.	2004	2003
			Value	Value
33592101	Insulated optical fiber cable.....	37	886,279 r/	944,384
33592101 pt.	Communication applications.....	23	881,045	939,019
	Single-mode stepped-index:			
3359210125	Dispersion shifted.....	13	138,400	215,472
3359210128	Dispersion unshifted .....	21	479,514 r/	479,807
3359210131	Multimode stepped index.....	4	(D)	(D)
3359210134	Multimode graded index .....	18	(D)	(D)
3359210434	Other applications.....	9	5,234	5,365

D Withheld to avoid disclosing data for individual companies. pt. Part.  
 r/Revised by 5 percent or more from previously published data.

Table 7. Value of Shipments of Optical Fiber: 2004 and 2003  
 [Thousands of dollars]

Product code	Product description	No. of cos.	2004	2003
			Value	Value
	Optical fiber for data and nondata transmission .....	15	502,323	449,113
327215B235	Optical fiber used for data transmission.....	8	435,878	385,490
327215B238	Optical fiber used for nondata transmission.....	7	66,445	63,623

Table 8. Shipments, Exports, Imports, and Apparent Consumption of Insulated Wire and Cable: 2004  
 [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, 1A0 1B0, 1C0, 1I0, 1D0, 1F0, 1E0, 1G0, 1H0	Magnet wire (copper) .....	559,836	1,025,059	68,588	332,232	38,498	175,411
331491H110, 120, 130, 140, 150, 160, 170, 180, 190, 1A0 1B0, 1C0, 1I0, 1D0, 1E0, 1F0, 1G0, 1H0	Magnet wire (aluminum).....	53,046	95,608	14,902	99,185	2,715	22,799
335929A100, 120, 130, 140, 150	Coaxial cable.....	(D)	(D)	53,055	383,462	50,401	368,288
3359210125, 128, 131, 134, 434	Optical fiber cables.....	3,405,939	886,279	420,624	199,070	1,881,697	231,012
327215B235, 238	Optical fibers, bundles, and cables.....	(X)	502,323	239,480	185,201	77,252	16,377
335929B110, 120, 130, 140, 150, 160, 170, 180, 335929E150, 160	Other wire and cable used for telecommunications (except fiber optics).....	333,769	1,032,237	(NA)	(NA)	33,054	536,605

D Withheld to avoid disclosing data for individual companies. NA Not available. n.e.c. Not elsewhere classified.  
 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 9.

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 9. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2004

Product code	Product description	Export code 1/	Import code 2/
331491H110, 120, 130, 140, 150, 160, 170, 180, 190, 1A0, 1B0, 1C0, 1I0, 1D0, 1E0, 1F0, 1G0, 1H0	Magnet wire (copper).....	8544.11.0020 8544.11.0030 8544.11.0050	8544.11.0020 8544.11.0030 8544.11.0050
331491H110, 120, 130, 140, 150, 160, 170, 180, 190, 1A0, 1B0, 1C0, 1I0, 1D0, 1F0, 1E0, 1G0, 1H0	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: 2004 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 (2004).

# 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.