Insulated Wire and Cable: 2001

Issued September 2002

MA335J(01)-1

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SUMMARY OF FINDINGS

In 2001, the total value of manufacturers' shipments of copper insulated wire and cable decreased by 14.2 percent to $16,874.9 million from $19,634.9 million in 2000. Copper magnet wire decreased 15.7 percent from the 2000 level of $1,115.7 million to $940.2 million in 2001. Aluminum magnet wire decreased by 8.4 percent in 2001 to $106.8 million from the 2000 level of $116.6 million. In 2001, insulated optical fiber cable decreased 11.5 percent to $3,654.1 million from $4,126.5 million in 2000. Optical fiber decreased by 6.1 percent to $2,325.4 million from the 2000 level of $2,475.5 million.

Quantity of shipments of aluminum insulated wire and cable decreased by 15 percent in 2001 to 440.5 million pounds, from the 2000 level of 518.2 million pounds.

For general CIR information, explanation of general terms and historical note, see the appendix.

Address inquiries concerning these data to Primary Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Stephanie Angel, 301-457-4698.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-457-4673.

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

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Table 1. Summary of Shipments of Copper Insulated Wire and Cable: 2001 and 2000
[Value in thousands of dollars]

Product code	Product description	2001	2000
	Insulated wire and cable	16,874,908	19,634,852
335929A	Electronic wire and cable	2,513,704	3,530,835
335929B	Telephone and telegraph wire and cable	2,079,018	2,663,086
3359291	Power wire and cable	1,545,753	1,682,904
3359291	Portable power cable	137,945	25,566
335929C	Control and signal wire and cable	206,396	172,731
335929D	Building wire and cable	2,121,077	2,379,591
331491E	Apparatus wire and cordage	738,173	857,541
335929E	Other insulated wire and cable	613,104	660,818
331491G	Magnet wire	940,225	1,115,724
3359210	Insulated optical fiber cable	3,654,064	4,070,544
327215A2	Optical fiber	2,325,449	2,475,512

Table 2. Shipments of Copper Insulated Wire and Cable: 2001 and 2000
[Shipments in thousands of pounds. Value in thousands of dollars]

Product code	Product description	Shipments, including interplant transfers 1/					
		2001			2000		
		No. of cos.	Copper content 2/	Value of copper content	No. of cos.	Copper content 2/	Value of copper content
335929 pt.	Insulated wire and cable (except magnet wire and optical wire)	(NA)	2,819,925	9,935,387	(NA)	3,120,565	11,973,072
335929A	Electronic wire and cable	88	220,669	2,513,704	87	300,055	3,530,835
	Coaxial cable, armored or unarmored:						
335929A100	Rigid	2	(D)	(D)	3	(D)	(D)
335929A120	Semi rigid	16	38,132	411,479	16	58,467	700,789
	Flexible:						
335929A130	135 C and over	12	4,314	75,067	12	5,120	93,213
335929A140	Under 135 C	25	18,876	442,567	27	42,976	640,974
335929A150	CATV/broadcast coaxial cable	9	(D)	(D)	9	(D)	(D)
335929A160	Antenna lead-in wire	8 c/	1,403 b/	10,571	8	1,665	11,874
	Hookup wire (single conductor, shielded and nonshielded):						
335929A170	135 C and over temperature rating	24 a/	11,224 b/	177,339	23	17,537	224,407
335929A180	Under 135 C temperature rating	34 a/	15,317 b/	97,337	35	19,704	126,845
	Multiconductor electronic wire and cable (shielded and nonshielded):						
335929A190	Flat and ribbon cable	20 a/	5,328 a/	71,603	22 a/	8,485 a/	111,202
	Other muticonductor electronic wire and cable:						
	Shielded:						
335929A1A0	135 C and over temperature rating	19	22,991	172,269	19	30,114	225,037
335929A1B0	Under 135 C temperature rating	34	28,267	238,964	34	38,498	304,414
	Nonshielded:						
335929A1C0	135 C and over temperature rating	10	7,369	83,602	10	9,701	108,904
335929A1D0	Under 135 C temperature rating	27	56,113	211,001	29	47,462	287,893
335929B	Telephone and telegraph wire and cable	29	505,310	2,079,018	29	678,509	2,663,086
335929B110	Jumper and distributing frame wire	5	(D)	(D)	5	(D)	(D)
335929B120	Station wire and cable	12	11,121	44,378	13	11,762	46,353
335929B130	Telephone cord sets and cordage	6	2,947	22,461	8	5,392	35,666
335929B140	Inside wiring cable	16	80,854	638,304	15	151,840	878,827
335929B150	Drop and bridle and duct wire	4	(D)	(D)	4	(D)	(D)
335929B160	Rural and urban distribution wire and cable	4	(D)	(D)	4	(D)	(D)
335929B170	Polyethylene covered exchange area and toll cable (PIC and PULP insulated)	5	305,577	831,868	5	312,778	871,930
335929B180	Other telephone and telegraph wire and cable	7	(D)	(D)	8	(D)	(D)
3359291	Power wire and cable	25	318,534	1,545,753	25	333,294	1,682,904
3359291810	Paper insulated cable (all voltages, all types)	1	(D)	(D)	2	(D)	(D)
	Plastic and rubber insulated:						
	600 volts or less:						
3359291820	Portable welding cable	8 a/	14,668 a/	37,820	9 a/	16,676 a/	45,688
3359291830	Underground distribution cable (UD, URD)	9	7,742	296,715	9	7,365	276,932
3359291840	Thermoplastic insulated power cable	9 a/	21,140 a/	54,285	8 a/	28,153 a/	59,411
	Thermoset insulated:						
3359291850	Armored, rubber and cross linked	9	13,831	38,132	8	16,219	44,165
3359291860	Unarmored, rubber	7	20,105	77,661	5	54,868	131,077
3359291870	Unarmored, cross linked	11	19,855 a/	65,709	9	18,244 a/	63,736
3359291880	Rubber (R, RH, RHH, RHW, USE, etc.)	3	(D)	(D)	3	(D)	(D)
3359291890	Weatherproof cable	4	1,980	7,756	3	1,912	6,870
3359291891	Service drop cable, thermoset and thermoplastic insulated	5	405	72,462	4	580	85,491
	Over 600 volts:						
33592918C0	Underground distribution cable (UD, URD), all insulations (jacketed and unjacketed)	9	65,449	379,915	7	56,974	380,356
33592918D0	Thermoplastic insulated power cable, excluding underground	4	(D)	(D)	4	(D)	(D)
	Thermoset insulated power cable, excluding underground:						
	Over 600 volts to 15 kV:						
33592918E0	Armored, rubber and cross-linked	8	17,978	71,573	6	16,700	126,310
33592918F0	Unarmored, rubber	9	64,569	188,802	6	41,418	137,885
33592918G0	Unarmored, cross-linked	6	10,052	39,902	5	4,939 a/	12,560
33592918H0	Over 15 kV (rubber and cross-linked)	4	(D)	(D)	5	(D)	(D)
3359291810	Other power wire and cable	4 b/	4,077 b/	15,680	7	20,278	73,998
3359291	Portable power cable	8	36,623	137,945	5	6,388	25,566
33592918J0	2 kV or less	6	(D)	(D)	6	(D)	(D)
33592918MO	Over 2 kV portable crosslinked and non-crosslinked	6	(D)	(D)	6	(D)	(D)

Continued

Table 2. Shipments of Copper Insulated Wire and Cable: 2001 and 2000
[Shipments in thousands of pounds. Value in thousands of dollars]

Product code	Product description	Shipments, including interplant transfers 1/					
		2001			2000		
		No. of cos.	Copper content 2/	Value of copper content	No. of cos.	Copper content 2/	Value of copper content
335929C	Control and signal wire	24	38,438	206,396	21	26,258	172,731
335929C110	Signal wire and cable	14	19,108	129,448	14	11,739	106,528
	Control wire and cable, excluding elevator cable:						
335929C120	Thermoset insulated	8 a/	6,405 a/	38,804	8 a/	5,483 a/	34,133
335929C130	Thermoplastic insulated	16 a/	12,922 b/	38,144	15 a/	9,036 a/	32,070
335929D	Building wire and cable	28	1,329,129	2,121,077	27	1,357,988	2,379,591
	Building wire and cable having underwriters' labels:						
	Thermoset insulated:						
335929D110	Cross-linked polyethylene (XHHW)	16	47,441	106,169	14	40,580	101,300
335929D120	Cross-linked polyethylene (USE)	13	26,880	64,139	12	21,602	57,342
	Thermoplastic insulated:						
335929D130	Flame-retardant nylon (THHN, THWN)	17	748,069	965,580	18	720,396	1,046,439
335929D140	Moisture and heat resistant (TW, THW)	11	1,716	3,277	12	1,914	3,867
335929D150	Service entrance cable (SER, SEU, ASE)	9 b/	8,326	109,375	8 b/	7,783	108,032
	Nonmetallic branch-circuit and underground feeder:						
335929D160	Type NM-B	9	396,079	570,501	9	441,991	726,481
335929D170	Type UF and NMC (corrosion resistant)	10	39,489	67,100	9	36,845	68,273
335929D181	Metallic armored cable (AC type) 3/	2	(D)	(D)		-	-
335929D183	Metallic armored cable (MC type) 3/	5	(D)	(D)		-	-
335929D190	Other building wire and cable	11 a/	15,229 a/	60,480	8 a/	14,964 b/	38,618
331491E	Apparatus wire and cordage 4/	45	215,681	738,173	46	249,683	857,541
	Flexible cordage:						
331491E110	Thermoset insulated	10	13,983	56,639	9	9,641	45,449
331491E120	Thermoplastic, including thermoplastic elastomers	17 a/	27,853 a/	58,586	15	34,407	67,132
331491E180	Extension cord sets	8	47,159	192,065	5	50,905	210,633
331491E190	Fixed power supply cords	15	12,717	71,637	17	15,759	78,975
331491E1A0	Detachable power supply cords	4	(D)	(D)	6	(D)	(D)
331491E1B0	Retractable power cords and other	9	(D)	(D)	10	(D)	(D)
	Apparatus wire:						
331491E130	Appliance fixture wire	20	30,546 a/	82,246	21	40,581 a/	117,560
331491E145	Appliance wiring material 14 gauge and larger, including motor lead and transformer lead wire), thermoset and thermoplastic insulated	11	40,357	118,144	11 b/	47,765 a/	142,816
331491E160	Submersible pump cable	9	14,628	51,872	10	14,447	49,990
331491E170	Other apparatus wire and cordage, including toolwire	18	26,934	92,472	19	33,257	114,874
335929E	Other insulated wire and cable	45	155,541	613,104	44	168,385	660,818
	Automotive:						
335929E110	Bulk automotive primary wire	13 b/	86,452 b/	181,208	13	90,157	181,559
335929E120	Bulk battery cable	6	(D)	(D)	5	(D)	(D)
335929E130	Bulk ignition wire	8	(D)	(D)	8	(D)	(D)
335929E140	Other automotive wire and cable	7	8,632	56,033	6	10,087	62,448
	Airframe, shipboard and ground support cable, excluding coaxial cable and ignition cable:						
335929E150	Airframe and missile, including ground support cable	10	2,349	28,205	10	3,063	33,206
335929E160	Shipboard cable	5 a/	2,316 a/	7,795	4 a/	2,134 a/	7,333
335929E170	Other insulated or covered wire and cable, n.e.c.	23 c/	41,169 c/	249,295	22	42,991	254,212

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

1/Interplant transfers for 2001 totaled $63,355 and for 2000 totaled $61,457.

2/Aluminum content for 2001 totaled 289,486 thousand pounds and for 2000 totaled 334,608 thousand pounds. See Table 3 for additional details.

3/Product code 335929D180 has been split into two new product codes for 2001, product codes 335929D181 and 335929D183. Product code 335929D180, "Copper content," totaled 71,913 and "Value of copper content" totaled $229,239 for 2000, and the combined total "Copper content" for 2001 is 45,900 and the total "Value of copper content" is $174,456.

4/Data include the following: (a) all known establishments which insulate wire and cable and then fabricate it into finished products, NAICS product class 33141E 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.

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Table 3. Aluminum Shipments of Selected Insulated Wire and Cable: 2001 and 2000
[Aluminum gross weight in thousands of pounds]

Product code	Product description	2001 No. of cos.	2001 Gross weight 1/	2000 No. of cos.	2000 Gross weight 1/
335929 pt.	Insulated wire (except magnet wire)	(NA)	440,535	(NA)	518,234
335929A	Electronic wire and cable	4	(D)	4	(D)
3359291	Power wire and cable	10	289,486	10	334,608
3359291830	Underground distribution cable, all insulations-600 volts or less	5	167,026	5	153,558
3359291891	Service drop cable, thermoset and thermoplastic insulated 2/	2	42,639	2	46,984
33592918C0	Underground distribution cable, all insulations-over 600 volts	7	48,299	7	55,297
33592918F0	Thermoset insulated power cable, unarmored, rubber--over 600 volts to 15 kV	3	4,285	3	4,203
33592918G0	Thermoset insulated power cable, unarmored, cross-linked--over 600 volts to 15 kV	2	(D)	2	(D)
335929D1	Building wire and cable	7	86,245	7	74,715
335929D110	Thermoset insulated, cross-linked polyethylene (XHHW)	5	23,753	5	24,870
335929D150	Service enterance cable (SER, SEU, ASE)	4	34,401	4	34,337
335929E1	Other insulated wire and cable	2	(D)	2	(D)

D Withheld to avoid disclosing data for individual companies. NA Not available. pt. Part.

1/Gross weight includes insulating materials, but excludes packing materials.
2/Product class 33592918A0 and 33592918B0 have been combined into new product code 3359291891 for 2001.

Table 4. Copper Shipments of Magnet Wire, Including Interplant Transfers: 2001 and 2000
[Copper gross weight in thousands of pounds. Value in thousands of dollars]

Product code	Product description	Shipments, including interplant transfers 1/ 2001 No. of cos.	2001 Gross weight 2/	2001 Value	2000 No. of cos.	2000 Gross weight 2/	2000 Value
331491G	Magnet wire	(NA)	627,483	940,225	(NA)	728,856	1,115,724
	Class 105 and below:						
331491G110	7 AWG and larger round, including all square and rectangle, film coated	5	9,600	11,541	5	9,657	12,697
331491G120	8 to 21 AWG, film coated	6	32,991	34,168	6	34,721	34,283
331491G130	22 to 32 AWG, film coated	6	1,406	2,443	6	1,750	2,875
331491G140	33 to 44 AWG, film coated	7	(D)	(D)	7	(D)	(D)
	Class 130 to 155:						
331491G150	7 AWG and larger round, including all square and rectangle, film coated	1	(D)	(D)	1	(D)	(D)
331491G160	8 to 21 AWG, film coated	13	17,280	25,376	13	22,692	34,930
331491G170	22 to 32 AWG, film coated	17	61,263	102,672	17	75,829	129,818
331491G180	33 to 44 AWG, film coated	14	17,330	52,999	14	23,573	74,278
	Class 180 and above:						
331491G190	7 AWG and larger round, including all square and rectangle, film coated	7	34,093	56,594	7	41,956	71,642
331491G1A0	8 to 21 AWG, film coated	12	273,525	321,746	12	314,718	377,054
331491G1B0	22 to 32 AWG, film coated	12	117,843	174,343	12	137,429	207,306
331491G1C0	33 to 44 AWG, film coated	12	6,049	26,312	12	7,651	34,978
331491G1I0	Miscellaneous film coated, n.e.c.	3	(D)	(D)	3	(D)	(D)
	Nonfilm coated (fibrous):						
331491G1D0	Class 130 and below	3	(D)	(D)	3	(D)	(D)
331491G1F0	Class 155 and above	6	12,634	29,990	6	12,265	27,202
	Nonfilm coated (tape):						
331491G1E0	Class 130 and below	4	16,772	25,671	4	14,590	21,727
331491G1G0	Class 155 and above	5	6,110	13,315	5	6,819	15,716
331491G1H0	Miscellaneous nonfilm coated, n.e.c.	2	(D)	(D)	2	(D)	(D)

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

1/Interplant transfers for 2001 totaled 13,585 thousand pounds of copper and 2000 totaled 17,342 thousand pounds of copper.
2/Gross weight includes insulating materials, but excludes packing materials.

Table 5. Aluminum Shipments of Magnet Wire, Including Interplant Transfers: 2001 and 2000
[Aluminum gross weight in thousands of pounds. Value in thousands of dollars]

Product code	Product description	Shipments, including interplant transfers 1/					
		2001			2000		
		No. of cos.	Gross weight 2/	Value	No. of cos.	Gross weight 2/	Value
331491G	Magnet wire	(NA)	58,022	106,802	(NA)	62,141	116,608
	Class 105 and below:						
331491G110	7 AWG and larger round, including all square and rectangle, film coated	5	(D)	(D)	5	(D)	(D)
331491G120	8 to 21 AWG, film coated	5	11,554	20,474	5	14,167	25,627
331491G130	22 to 32 AWG, film coated	3	(D)	(D)	3	(D)	(D)
331491G140	33 to 44 AWG, film coated	1	(D)	(D)	1	(D)	(D)
	Class 130 to 155:						
331491G150	7 AWG and larger round, including all square and rectangle, film coated	1	(D)	(D)	1	(D)	(D)
331491G160	8 to 21 AWG, film coated	5	5,171	10,055	5	5,937	11,298
331491G170	22 to 32 AWG, film coated	6	1,274	3,380	6	1,607	3,913
331491G180	33 to 44 AWG, film coated	-	-	-	-	-	-
	Class 180 and above:						
331491G190	7 AWG and larger round, including all square and rectangle, film coated	4	1,703	3,876	4	2,061	4,731
331491G1A0	8 to 21 AWG, film coated	8	26,538	47,030	8	27,042	48,687
331491G1B0	22 to 32 AWG, film coated	6	2,145	5,717	6	2,960	8,130
331491G1C0	33 to 44 AWG, film coated	1	(D)	(D)	1	(D)	(D)
331491G1I0	Miscellaneous film coated, n.e.c.						
	Nonfilm coated (fibrous):						
331491G1D0	Class 130 and below	-	-	-	-	-	-
331491G1F0	Class 155 and above	1	(D)	(D)	1	(D)	(D)
	Nonfilm coated (tape):						
331491G1E0	Class 130 and below	2	(D)	(D)	2	(D)	(D)
331491G1G0	Class 155 and above	3	5,108	9,116	3	2,520	5,096
331491G1H0	Miscellaneous nonfilm coated, n.e.c.	-	-	-	-	-	-

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

1/Interplant transfers for 2001 totaled 4,821 thousand pounds of aluminum and for 2000 totaled 6,051 thousand pounds of aluminum.
2/Gross weight includes insulating materials, but excludes packing materials.

Table 6. Value of Shipments of Fiber Optic Cable: 2001 and 2000
[Thousands of dollars]

Product code	Product description	2001 No. of cos.	2001 Value	2000 No. of cos.	2000 Value
33592101	Insulated optical fiber cable	29	3,654,064	28	4,126,544
33592101 pt.	Communication applications	22	3,592,535	22	4,064,122
	Single-mode stepped-index:				
3359210125	Dispersion shifted	10	924,498	11	1,134,435
3359210128	Dispersion unshifted	21	2,423,183	20	2,639,509
3359210131	Multimode stepped index	5	55,283	4	63,136
3359210134	Multimode graded index	16	189,571	16	227,042
3359210434	Other applications	12	61,529	11	62,422

pt. Part.

Table 7. Value of Shipments of Optical Fiber: 2001 and 2000
[Thousands of dollars]

Product code	Product description	2001 No. of cos.	2001 Value	2000 No. of cos.	2000 Value
	Optical fiber for data and nondata transmission	19	2,325,449	19	2,475,512
327215A235	Optical fiber used for data transmission	11	2,183,134	12	2,299,659
327215A238	Optical fiber used for nondata transmission	10	142,315	10	175,853

Table 8. Shipments, Exports, Imports, and Apparent Consumption of Insulated Wire and Cable: 2001
[Quantity in thousands of units. Value in millions 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	Quanity	Value	Quantity	Value
331491G110, 120, 130, 140, 150, 160, 170, 180, 190, 331491G1A0, 1B0, 1C0, 1D0, 1E0, 1F0, 1G0, 1H0, 1I0	Magnet wire (copper)	627,483	940,225	83,117.2	383.7	32,794.0	127.3
331491G110, 120, 130, 140, 150, 160, 170, 180, 190, 331491G1A0, 1B0, 1C0, 1D0, 1E0, 1F0, 1G0, 1H0, 1I0	Magnet wire (other than copper)	58,022	106,802	24,369.1	148.6	1,961.2	11.7
335929A100, 120, 130, 140, 150	Coaxial cable	72,657	1,451,018	57,555.3	463.2	31,210.0	248.1
3359210125, 128, 131, 134, 3359210434	Optical fiber cables	(X)	3,654,054	1,035,993.7	531.3	3,434,767.7	669.8
327215A235, 238	Optical fibers, bundles, and cables	(X)	2,325,449	1,696,328.8	1,157.9	1,095,343.1	184.6
335929B110, 120, 130, 140, 150, 160, 170, 180, 335929E150, 160	Other wire and cable used for telecommunications (except fiber optics)	533,178	2,151,630	(NA)	(NA)	(NA)	457.6

NA Not available. X Not applicable.

1/For comparision 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.

Table 9. Comparision of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2001

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 (other than copper)	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	9001.10.0030 9001.10.0050 9001.10.0070 9001.10.0075 9001.10.0085
335929B110, 120, 130, 140, 150 160, 170 180 3359291810, 830, 8C0, 335929E160	Other wire and cable used for telecommunications (except fiber optics)	(NA)	8544.41.4000 8544.49.4000 8544.51.4000 8544.51.7000

NA Not available.

1/Source: 2001 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 (2001).

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.