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# COMMUNICATIONS EQUIPMENT MANUFACTURERS 1963

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## COMMUNICATIONS EQUIPMENT MANUFACTURERS

1963

Data presented in this report under the heading of Communications Equipment Manufacturers reflect implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept which are being used by the Dominion Bureau of Statistics in its compilation of industry statistics — see items "Standard Industrial Classification" and "Establishment" in the Explanatory Notes section of this report.

For statistical purposes the industry titled Communications Equipment Manufacturers in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing radio and television transmitters, radar equipment, closed circuit television equipment, and electronic navigational aids; public address apparatus, and the related parts and equipment. Included are establishments primarily engaged in manufacturing telephone and telegraph equipment and parts. This industry includes establishments primarily engaged in manufacturing electronic control panels and similar devices.

### SYMBOLS

The following standard symbols are used in Dominion Bureau of Statistics publications:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.
- amount too small to be expressed.
- ◊ preliminary figures.
- \* revised figures.
- x confidential to meet secrecy requirements of the Statistics Act.

TABLE 1 A. Principal Statistics classified by Province, 1962 and 1963

Year and province	Estab-lish-ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec-tricity	Cost of materials and supplies	Value of shipments of goods of own manu-facture	Value added	Working owners and partners		Total employees		Total value added
		Number	Man-hours paid	Wages					Number	With-drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1961</b>													
<b>Totals .....</b>	<b>125</b>	<b>15,018</b>	<b>30,979</b>	<b>57,520</b>	<b>1,492</b>	<b>93,750</b>	<b>251,084</b>	<b>162,423</b>	<b>9</b>	<b>38</b>	<b>24,000</b>	<b>108,753</b>	<b>169,567</b>
<b>1962</b>													
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	1	x	x	x	x	x	x	x	-	-	x	x	x
New Brunswick .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Quebec .....	26	7,326	15,622	32,564	695	34,730	123,899	97,578	x	x	11,641	59,173	102,944
Ontario .....	96	10,291	21,006	35,544	1,010	75,325	178,493	101,751	10	48	15,014	61,746	106,296
Manitoba .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Saskatchewan .....	1	x	x	x	x	x	x	x	-	-	x	x	x
Alberta .....	4	x	x	x	x	x	x	x	-	-	x	x	x
British Columbia .....	9	x	x	x	x	x	x	x	x	x	x	x	x
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Totals .....</b>	<b>137</b>	<b>18,188</b>	<b>37,823</b>	<b>70,190</b>	<b>1,778</b>	<b>117,263</b>	<b>319,752</b>	<b>210,811</b>	<b>14</b>	<b>67</b>	<b>27,749</b>	<b>125,645</b>	<b>220,880</b>
<b>1963</b>													
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	1	x	x	x	x	x	x	x	-	-	x	x	x
New Brunswick .....	1	x	x	x	x	x	x	x	-	-	x	x	x
Quebec .....	27	5,714	12,194	27,554	603	29,880	104,945	57,829	x	x	9,538	51,690	83,335
Ontario .....	95	12,038	24,892	44,814	1,265	96,599	234,956	148,649	10	44	17,842	76,537	148,832
Manitoba .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Saskatchewan .....	1	x	x	x	x	x	x	x	-	-	x	x	x
Alberta .....	3	x	x	x	x	x	x	x	-	-	x	x	x
British Columbia .....	9	x	x	x	x	x	x	x	x	x	x	x	x
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Totals .....</b>	<b>137</b>	<b>18,624</b>	<b>38,862</b>	<b>74,987</b>	<b>2,066</b>	<b>136,338</b>	<b>360,957</b>	<b>214,813</b>	<b>14</b>	<b>64</b>	<b>28,735</b>	<b>133,558</b>	<b>223,763</b>



TABLE 1 B. Principal Statistics classified by Size Groups based on Shipments of Goods of Own Manufacture, 1962 and 1963

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1962</b>													
Under \$10,000													
\$ 10,000 to \$ 24,999	11	16	30	37	3	72	178	109	1	2	33	72	129
25,000 " 49,999	7	22	46	69	2	120	274	156	2	11	28	89	164
50,000 " 99,999	12	82	190	308	16	378	875	530	2	12	149	571	537
100,000 " 199,999	20	257	498	726	34	1,268	2,803	1,481	3	17	335	1,132	1,604
200,000 " 499,999	27	906	1,880	2,331	96	4,378	9,961	5,573	—	—	1,174	3,839	5,715
500,000 " 999,999	19	966	2,027	2,599	108	6,106	12,773	7,189	6	24	1,277	4,374	7,348
1,000,000 " 4,999,999	27	3,604	7,434	11,027	403	28,595	60,763	33,774	—	—	5,278	20,262	35,257
5,000,000 and over	14	12,325	25,718	53,091	1,116	76,347	232,125	161,999	—	—	19,384	94,731	170,143
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	91	574	(16)
<b>Totals</b>	<b>137</b>	<b>18,188</b>	<b>37,823</b>	<b>70,190</b>	<b>1,778</b>	<b>117,263</b>	<b>319,752</b>	<b>210,811</b>	<b>14</b>	<b>67</b>	<b>27,749</b>	<b>125,645</b>	<b>220,880</b>
<b>1963</b>													
Under \$10,000													
\$ 10,000 to \$ 24,999	5	6	13	18	1	22	64	38	1	4	9	28	38
25,000 " 49,999	8	15	30	53	6	107	302	234	2	9	25	99	234
50,000 " 99,999	13	74	149	236	14	340	924	586	4	22	99	350	652
100,000 " 199,999	16	141	288	467	32	994	2,168	1,191	1	5	187	730	1,207
200,000 " 499,999	28	797	1,601	2,384	134	4,468	9,550	5,105	—	—	1,039	3,868	5,532
500,000 " 999,999	21	1,082	2,226	3,073	156	6,096	14,416	8,377	6	24	1,379	4,880	8,716
1,000,000 " 4,999,999	29	3,530	7,106	10,196	449	24,405	55,276	30,994	—	—	4,879	17,997	31,047
5,000,000 and over	17	12,979	27,449	58,560	1,273	98,907	278,256	168,287	—	—	20,955	105,005	176,447
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	163	602	(111)
<b>Totals</b>	<b>137</b>	<b>18,624</b>	<b>38,862</b>	<b>74,987</b>	<b>2,066</b>	<b>136,338</b>	<b>360,957</b>	<b>214,813</b>	<b>14</b>	<b>64</b>	<b>28,735</b>	<b>133,558</b>	<b>223,763</b>

TABLE 1 C. Principal Statistics classified by Size Groups based on Manufacturing Value Added, 1962 and 1963

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1962</b>													
Under \$10,000	5	6	11	14	1	26	56	29	—	—	14	34	50
\$ 10,000 to \$ 24,999	12	27	53	68	4	156	358	204	3	13	42	103	211
25,000 " 49,999	10	63	127	201	8	366	766	363	2	12	88	338	390
50,000 " 99,999	20	241	470	698	37	1,108	2,456	1,363	3	17	338	1,168	1,452
100,000 " 199,999	20	494	981	1,410	74	2,965	6,124	3,149	—	—	664	2,309	3,241
200,000 " 499,999	27	1,439	3,030	3,608	116	7,562	16,044	8,690	6	24	1,808	5,820	8,879
500,000 " 999,999	14	1,143	2,230	2,838	137	10,044	19,574	9,906	—	—	1,581	5,315	10,290
1,000,000 " 4,999,999	19	4,587	9,153	16,247	394	35,031	75,608	40,541	—	—	6,757	27,150	42,616
5,000,000 and over	10	10,188	21,769	45,107	1,007	60,003	198,768	146,566	—	—	16,366	82,834	153,767
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	91	574	(16)
<b>Totals</b>	<b>137</b>	<b>18,188</b>	<b>37,823</b>	<b>70,190</b>	<b>1,778</b>	<b>117,263</b>	<b>319,752</b>	<b>210,811</b>	<b>14</b>	<b>67</b>	<b>27,749</b>	<b>125,645</b>	<b>220,880</b>
<b>1963</b>													
Under \$10,000	4	5	11	14	1	13	42	25	1	4	6	16	25
\$ 10,000 to \$ 24,999	7	16	32	49	4	116	260	132	2	9	21	77	198
25,000 " 49,999	11	48	97	155	10	528	897	434	4	22	73	273	601
50,000 " 99,999	22	181	363	595	42	1,270	2,894	1,590	1	5	255	997	1,602
100,000 " 199,999	15	407	822	1,245	61	2,081	4,551	2,276	—	—	528	1,776	2,441
200,000 " 499,999	27	1,233	2,508	3,379	191	7,832	15,832	8,122	6	24	1,564	5,614	8,689
500,000 " 999,999	22	2,051	4,108	5,558	234	12,361	27,435	15,266	—	—	2,662	9,322	14,904
1,000,000 " 4,999,999	20	4,945	10,244	18,209	544	38,166	89,734	50,914	—	—	7,189	30,696	53,976
5,000,000 and over	9	9,738	20,678	45,783	978	73,971	219,312	136,053	—	—	16,274	84,186	141,437
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	163	602	(111)
<b>Totals</b>	<b>137</b>	<b>18,624</b>	<b>38,862</b>	<b>74,987</b>	<b>2,066</b>	<b>136,338</b>	<b>360,957</b>	<b>214,813</b>	<b>14</b>	<b>64</b>	<b>28,735</b>	<b>133,558</b>	<b>223,763</b>

TABLE 1 D. Principal Statistics classified by Size Groups based on Total Value Added, 1962 and 1963

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1962</b>													
Under \$10,000	4	5	10	9	1	19	42	22	-	-	8	11	24
\$ 10,000 to \$ 24,999	11	24	47	58	3	136	314	182	3	13	38	92	184
25,000 " 49,999	12	80	165	292	14	381	828	408	2	12	141	616	432
50,000 " 99,999	19	204	391	552	30	1,061	2,301	1,259	3	17	263	801	1,267
100,000 " 199,999	19	439	876	1,270	65	2,684	5,534	2,848	-	-	586	2,023	3,010
200,000 " 499,999	30	1,568	3,283	3,976	137	8,237	17,606	9,589	6	24	1,978	6,451	9,799
500,000 " 999,999	12	1,054	2,050	2,561	119	7,274	15,170	8,386	-	-	1,358	4,268	8,471
1,000,000 " 4,999,999	19	4,036	8,069	14,236	402	34,188	71,448	36,886	-	-	6,227	25,291	36,618
5,000,000 and over	11	10,778	22,932	47,235	1,007	63,283	206,509	151,220	-	-	17,059	85,518	159,091
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	91	574	(16)
<b>Totals</b>	<b>137</b>	<b>18,188</b>	<b>37,823</b>	<b>70,190</b>	<b>1,778</b>	<b>117,283</b>	<b>319,752</b>	<b>210,811</b>	<b>14</b>	<b>67</b>	<b>27,749</b>	<b>125,645</b>	<b>220,880</b>
<b>1963</b>													
Under \$10,000	4	5	11	14	1	13	42	25	1	4	6	16	25
\$ 10,000 to \$ 24,999	6	10	20	33	3	81	196	109	2	9	13	48	109
25,000 " 49,999	10	30	61	113	9	251	620	387	4	22	43	179	387
50,000 " 99,999	23	187	375	612	43	1,305	2,958	1,612	1	5	263	1,026	1,692
100,000 " 199,999	14	355	720	1,088	51	1,821	4,085	2,078	-	-	461	1,594	2,130
200,000 " 499,999	31	1,413	2,865	4,003	218	9,008	18,200	9,374	6	24	1,799	6,525	10,213
500,000 " 999,999	20	1,941	3,889	5,134	219	11,722	25,811	14,259	-	-	2,524	8,686	13,906
1,000,000 " 4,999,999	18	4,193	8,496	14,547	479	32,470	74,469	41,764	-	-	5,963	24,229	43,215
5,000,000 and over	11	10,490	22,425	49,445	1,043	79,667	234,577	145,203	-	-	17,500	90,653	152,197
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	163	602	(111)
<b>Totals</b>	<b>137</b>	<b>18,624</b>	<b>38,862</b>	<b>74,987</b>	<b>2,066</b>	<b>136,338</b>	<b>360,957</b>	<b>214,813</b>	<b>14</b>	<b>64</b>	<b>28,735</b>	<b>133,558</b>	<b>223,783</b>

TABLE 1 E. Principal Statistics classified by Size Groups based on Total Employed, 1962 and 1963

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1962</b>													
Under 5 employed	16	29	59	84	7	203	462	252	5	25	40	107	262
5- 14 employed	20	125	246	375	17	791	1,665	920	2	12	178	577	972
15- 49 " "	40	789	1,576	2,386	152	7,550	15,908	8,339	1	5	1,159	4,505	8,552
50- 99 " "	21	1,164	2,423	3,151	102	6,384	15,032	9,276	6	24	1,460	4,936	9,534
100-199 " "	16	1,697	3,393	4,497	166	10,978	23,671	12,895	-	-	2,290	7,664	13,368
200-499 " "	13	2,890	6,124	9,258	342	23,902	56,915	33,997	-	-	4,475	17,891	34,998
500 employed and over	11	11,494	24,002	50,438	992	67,455	206,099	145,132	-	-	18,056	89,391	153,209
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	91	574	(16)
<b>Totals</b>	<b>137</b>	<b>18,188</b>	<b>37,823</b>	<b>70,190</b>	<b>1,778</b>	<b>117,263</b>	<b>319,752</b>	<b>210,811</b>	<b>14</b>	<b>67</b>	<b>27,749</b>	<b>125,645</b>	<b>220,880</b>
<b>1963</b>													
Under 5 employed	15	26	54	96	8	217	540	320	5	25	33	132	320
5- 14 employed	23	147	295	504	39	1,237	2,621	1,431	3	15	210	833	1,512
15- 49 " "	35	738	1,493	2,375	194	7,919	16,253	8,196	-	-	1,073	4,377	8,161
50- 99 " "	22	1,200	2,445	3,567	153	7,301	17,893	10,228	8	24	1,513	5,665	10,618
100-199 " "	15	1,678	3,413	4,429	145	8,398	20,986	12,491	-	-	2,251	7,638	13,014
200-499 " "	14	2,829	6,016	9,774	360	23,402	54,112	29,776	-	-	4,209	17,980	31,710
500 employed and over	13	12,006	25,147	54,242	1,167	87,866	248,552	152,368	-	-	19,283	96,331	158,540
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	163	602	(111)
<b>Totals</b>	<b>137</b>	<b>18,624</b>	<b>38,862</b>	<b>74,987</b>	<b>2,066</b>	<b>136,338</b>	<b>360,957</b>	<b>214,813</b>	<b>14</b>	<b>64</b>	<b>28,735</b>	<b>133,558</b>	<b>223,783</b>

TABLE 1 F. Principal Statistics classified by Type of Organization, 1962 and 1963

Type of organization	Estab-lish-ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec-tricity	Cost of materials and supplies	Value of shipments of goods of own manu-facture	Value added	Working owners and partners		Total employees		Total value added
		Number	Man-hours paid	Wages					Number	With-drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1962													
Individual ownerships .....	4	22	44	45	3	124	251	124	4	18	23	47	128
Partnerships .....	3	68	146	173	7	522	856	322	10	48	76	197	446
Incorporated companies .....	130	18,098	37,633	69,971	1,768	116,617	318,645	210,365	...	...	27,559	124,827	220,322
Cooperatives .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	91	574	(16)
Totals .....	137	18,188	37,823	70,190	1,778	117,263	319,752	210,811	14	67	27,749	125,645	220,880
1963													
Individual ownerships .....	4	15	30	36	3	97	214	122	4	18	15	36	122
Partnerships .....	3	61	122	145	7	547	870	346	10	46	65	162	510
Incorporated companies .....	130	18,548	38,710	74,807	2,056	135,694	359,873	214,345	...	...	28,492	132,758	223,242
Cooperatives .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	163	602	(111)
Totals .....	137	18,624	38,862	74,987	2,066	136,338	360,957	214,813	14	64	28,735	133,558	223,763

TABLE 2. Industry Output, Input and Value Added, 1962 and 1963

	Manufacturing activity		Non-manufacturing activities		Total activity	
	1962	1963	1962	1963	1962	1963
\$'000						
<b>Output</b>						
1. Shipments and other revenue .....	319,752	380,957	53,505	61,140	373,257	422,097
Inventories—Goods of own manufacture:						
Add closing—Goods in process .....	57,228	51,646	...	...	57,228	51,646
Finished goods .....	16,738	16,816	...	...	16,738	16,816
Less opening—Goods in process .....	50,879	57,351	...	...	50,879	57,351
Finished goods .....	12,988	18,851	...	...	12,988	18,851
2. Net inventory change .....	10,099	(7,740)	...	...	10,099	(7,740)
3. Gross output (1+2) .....	329,851	353,217	53,505	61,140	383,356	414,357
<b>Input</b>						
4. Purchases of goods not of own manufacture .....	...	...	42,266	48,541	42,266	48,541
Inventories—Goods not of own manufacture:						
Add opening .....	...	...	4,792	5,844	4,792	5,844
Less closing .....	...	...	5,833	4,824	5,833	4,824
5. Cost of goods sold (not of own manufacture) .....	...	...	41,225	49,561	41,225	49,561
6. Materials, supplies, components and semi-processed goods .....	117,263	136,338	2,212	2,628	119,475	138,966
7. Fuel and electricity .....	1,778	2,066	...	...	1,778	2,066
8. Gross input (5+6+7) .....	119,041	138,404	43,437	52,189	162,478	190,593
Census value added (3-8) .....	210,811	214,813	10,069	8,950	220,880	223,763



TABLE 3. Employment and Payroll, 1962 and 1963

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office		Sales and distribution		Total employees		Production and related workers		Admin- istra- tive and office	Sales and distri- bution	Total salaries and wages
	Manufacturing		Other												
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufacturing	Other			
number										\$'000					
1962															
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	x	x	-	-	x	x	x	x	x	x	x	-	x	x	x
New Brunswick .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quebec .....	4,337	2,989	1	-	2,927	713	523	151	7,788	3,853	32,564	5	22,748	3,856	59,173
Ontario .....	4,315	5,976	27	28	3,279	1,049	242	98	7,863	7,151	35,544	153	24,131	1,917	61,746
Manitoba .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saskatchewan .....	x	x	-	-	x	x	x	x	x	x	x	-	x	x	x
Alberta .....	x	x	-	-	x	x	x	x	x	x	x	-	x	x	x
British Columbia .....	x	x	-	-	x	x	x	x	x	x	x	-	x	x	x
Yukon and Northwest Terri- tories .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .....	8,930	9,258	28	28	6,557	1,896	791	261	16,306	11,443	70,190	158	49,307	5,989	125,645
1963															
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	x	x	x	-	x	x	x	x	x	x	x	x	x	x	x
New Brunswick .....	x	x	x	-	x	x	x	x	x	x	x	x	x	x	x
Quebec .....	3,767	1,947	2	-	2,523	609	502	186	6,794	2,742	27,554	10	19,832	4,294	51,690
Ontario .....	5,310	6,726	38	50	4,058	1,311	244	105	9,650	8,192	44,814	262	29,416	2,044	76,537
Manitoba .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saskatchewan .....	x	x	x	-	x	x	x	x	x	x	x	x	x	x	x
Alberta .....	x	x	x	-	x	x	x	x	x	x	x	x	x	x	x
British Columbia .....	x	x	x	-	x	x	x	x	x	x	x	x	x	x	x
Yukon and Northwest Terri- tories .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .....	9,598	9,026	43	50	6,905	2,028	779	306	17,325	11,410	74,987	283	51,672	6,616	133,558

TABLE 3A. Production and Related Workers, - Manufacturing Activity, by Months, 1962 and 1963

Month	Establishments reporting monthly detail			
	1962		1963	
	Male	Female	Male	Female
	number			
January .....	8,128	8,118	9,106	8,734
February .....	8,273	8,322	9,124	8,833
March .....	8,400	8,542	9,324	8,756
April .....	8,472	8,803	9,320	8,687
May .....	8,617	8,929	9,425	8,584
June .....	8,682	9,083	9,449	8,458
July .....	8,562	8,758	9,404	8,404
August .....	8,614	9,072	9,363	8,460
September .....	8,596	9,192	9,193	8,408
October .....	8,483	9,138	9,188	8,604
November .....	8,418	9,137	9,200	8,640
December .....	8,270	8,909	9,282	8,577
Average for establishments reporting monthly detail (collected only for large establishments) ..	8,477	8,815	9,196	8,554
Average for small establishments (only annual averages collected) .....	453	443	402	472
Average for all establishments .....	8,930	9,258	9,598	9,026

TABLE 4. Industry Inventories, 1963

Province	Manufacturing				Non-manufacturing	Total inventories
	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total manufacturing	Products or materials purchased for resale	
book value \$'000						
Opening:						
Newfoundland .....	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-
Nova Scotia .....	x	x	x	x	x	x
New Brunswick .....	x	x	x	x	x	x
Quebec .....	5, 123	34, 630	7, 680	47, 433	2, 770	50, 203
Ontario .....	9, 741	18, 264	10, 391	38, 396	3, 058	41, 454
Manitoba .....	-	-	-	-	-	-
Saskatchewan .....	x	x	x	x	x	x
Alberta .....	x	x	x	x	x	x
British Columbia .....	x	x	x	x	x	x
Yukon and Northwest Territories .....	-	-	-	-	-	-
Totals .....	16, 563	57, 351	18, 851	92, 766	5, 844	98, 610
Closing:						
Newfoundland .....	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-
Nova Scotia .....	x	x	x	x	x	x
New Brunswick .....	x	x	x	x	x	x
Quebec .....	4, 757	20, 634	4, 843	30, 234	2, 113	32, 347
Ontario .....	10, 409	26, 966	11, 266	48, 640	2, 603	51, 243
Manitoba .....	-	-	-	-	-	-
Saskatchewan .....	x	x	x	x	x	x
Alberta .....	x	x	x	x	x	x
British Columbia .....	x	x	x	x	x	x
Yukon and Northwest Territories .....	-	-	-	-	-	-
Totals .....	16, 835	51, 646	16, 816	85, 297	4, 824	90, 121

TABLE 5. Purchased Fuel and Electricity Used in Manufacturing Activity, 1962 and 1963

Description	1962		1963	
	Quantity	Cost	Quantity	Cost
		\$'000		\$'000
1. Large establishments which reported commodity detail:				
Bituminous coal:				
(a) From Canadian mines .....	ton	1, 488	1, 639	21
(b) Imported .....	"	2, 493	2, 360	27
Sub-bituminous coal (from Alberta mines only) .....	"	980	-	-
Anthracite coal .....	"	130	-	-
Lignite coal .....	"	-	-	-
Coke .....	"	-	-	-
Gasoline (including gasoline used in cars and trucks) .....	Imp. gal.	120, 500	153, 526	61
Fuel oil including kerosene or coal oil .....	"	4, 141, 023	4, 565, 180	418
Wood .....	cord	-	-	-
Gas:				
(a) Liquefied petroleum gases .....	Imp. gal.	-	1, 472	1
(b) Other manufactured gas .....	M cu.ft.	-	-	-
(c) Natural gas .....	"	153, 054	164, 491	160
Other fuel .....	...	28	...	33
Electricity purchased .....	kwh.	102, 893, 853	132, 183, 958	1, 104
Steam purchased .....	...	55	...	31
2. Estimate for small establishments:				
Fuel and electricity .....	...	123	...	210
3. All establishments:				
Total fuel and electricity used .....	...	1, 778	...	2, 066

TABLE 6. Materials and Supplies — Manufacturing Activity, 1962 and 1963

Description	1962		1963	
	Quantity	Cost	Quantity	Cost
		\$'000		\$'000
1. Materials used:				
Aluminum:				
Castings .....	lb. 167,117	206	85,080	132
Wire rods .....	" 155,741	91	90,693	62
Sheets and strip .....	" 1,740,618	819	1,600,604	686
Other .....	...	511	...	499
Brass and bronze:				
Castings .....	lb. 59,994	40	16,474	15
Wire rods .....	" 747,897	337	646,904	286
Sheets and strip .....	" 918,790	597	1,184,348	730
Other .....	...	273	...	362
Copper:				
Wire rods .....	lb. 756,485	260	117,437	57
Sheets and strip .....	" 69,326	46	89,972	82
Tubing and pipe .....	" 93,282	125	88,982	72
Wire, enamelled .....	" 1,480,073	1,288	1,653,589	1,470
Wire, other insulated .....	...	972	...	1,291
Other .....	...	253	...	600
Glass tubing and cane .....	...	1,965	...	2,190
Insulating varnishes, japans, enamels and lacquers .....	...	87	...	36
Iron and steel:				
Castings:				
Iron (gray and malleable) .....	ton 100	55	7	4
Steel .....	" 199	47	198	54
Steel bars and rods .....	" 1,462	474	521	244
Steel sheets and strip:				
Plain .....	" 6,070	1,238	6,052	1,127
Galvanized .....	" 621	105	1,140	184
Steel wire .....	" 109	15	5	1
Structural steel .....	" 1,285	278	203	43
Other steel (except alloy) .....	...	672	...	1,141
Alloy steel, all forms:				
Stainless .....	...	202	...	214
Silicon sheets and strips .....	ton 1,735	857	1,469	598
Other alloy .....	...	262	...	398
Lead .....	lb. 50,915	34	6,744	3
Mica, unfabricated forms only .....	" 18,141	13	4,150	4
Motors, electric:				
Under 1 h.p. ....	No. 13,633	156	5,852	152
1 h.p. and over, A.C. or D.C. ....	" —	—	5,570	570
Paints, stains, lacquers, for finishing only .....	...	526	...	178
Resins, synthetic, all types .....	...	840	...	1,100
Resistance wire ribbon and strip .....	...	178	...	66
Tubes, electronic .....	No. 1,502,164	3,464	1,973,294	2,979
Tungsten wire .....	...	94	...	104
All other materials and components used <sup>1</sup> .....	...	89,913	...	108,545
2. Containers and other packaging materials and supplies used .....	...	1,778	...	1,682
3. Operating, maintenance and repair supplies used (excluding fuel) .....	...	6,556	...	6,508
4. Amount paid out to others for work done on materials owned by establishments .....	...	1,616	...	1,891
Totals .....	...	117,263	...	136,338

<sup>1</sup> No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. These estimated costs were \$4,896,000 in 1962 and \$4,775,000 in 1963.

TABLE 7. Shipments of Goods of Own Manufacture, 1962 and 1963

Description	1962		1963	
	Quantity	Value	Quantity	Value
	No.	\$'000	No.	\$'000
1. Products:				
Domestic radio receiving sets and record players .....	5,863	383	1	1
Broadcast studio equipment (radio and television) including transmitters, antenna equipment, etc. ....	...	5,370	...	5,230
Radio communication equipment for civilian use .....	...	14,189	...	23,003
Radio communication equipment for defence .....	...	8,927	...	13,565
Radar equipment, commercial and defence .....	...	28,721	...	23,586
Sonar equipment, commercial and defence .....	...	1,877	...	4,293
Navigational equipment, airborne and marine .....	...	15,056	...	29,689
Telephone materials, excluding intercommunication and inter-office .....	...	100,915	...	115,945
Multiplex equipment .....	...	2	...	2
Signal systems, traffic, fire alarm, etc. ....	...	3,682	...	5,856
Electronic tubes .....	14,177,487	22,337	11,759,887	20,582
Antennae and antenna parts and mounting, domestic type .....	...	2,969	...	3,047
Spare parts (less tubes) for maintenance of electronic telecommunication equipment and other electronic equipment, commercial and defence .....	...	3,120	...	3,042
Contract maintenance of electronic equipment, commercial and defence .....	...	3,985	...	5,241
Electronic sound equipment including amplifiers, loud speakers, public address systems, etc. ....	...	4,413	...	5,196
All other radio and electronic equipment .....	...	33,193	...	61,841
All other products .....	...	56,710	...	36,555
2. Amount received in payment for work done on materials and products owned by others .....	...	2,239	...	8,706
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above .....	...	(974)	...	(900)
Net adjustment for establishments receiving progress payments .....	...	12,641	...	(3,519)
Total adjusted value of shipments and work done .....	...	319,752	...	360,957

<sup>1</sup> Included with "All other radio and electronic equipment".

<sup>2</sup> Included with "All other products".

TABLE 8. Shipments of Selected Goods of Own Manufacture - All Industries, 1962 and 1963  
(Includes shipments from other industries which manufacture, as a secondary activity, the commodities listed)

A. Specified Communications Equipment<sup>1</sup>

Item	1962		1963	
	Quantity	Value	Quantity	Value
	No.	\$'000	No.	\$'000
Broadcast studio equipment (radio and television) including transmitters, antenna equipment, etc. ....	...	5,390	...	5,230
Radio communication equipment for civilian use:				
Aviation .....	...	4,548	...	2
Marine .....	...	637	...	1,037
Land mobile .....	...	2,282	...	4,376
Point to point .....	...	9,012	...	18,231
Radio communication equipment for defence:				
Aviation .....	...	3,570	...	2,856
Marine .....	...	1,333	...	2
Land mobile .....	...	987	...	2
Point to point .....	...	4,297	...	4,157
Radar equipment, commercial and defence .....	...	33,963	...	25,920
Sonar equipment, commercial and defence .....	...	5,820	...	9,223
Airborne navigational equipment .....	...	24,623	...	52,306

See footnotes at end of table.



**TABLE 8. Shipments of Selected Goods of Own Manufacture - All Industries, 1962 and 1963 - Concluded**  
**A. Specified Communications Equipment<sup>1</sup> - Concluded**

Item	1962		1963	
	Quantity	Value	Quantity	Value
	No.	\$'000	No.	\$'000
Telephone materials, including central and private branch exchange switchboard, telephones, transmitters, receivers, parts and supplies, excluding intercommunication telephones and inter-office communication sets .....	...	101, 166	...	115, 733
Inter-office communication sets, electronic type .....	...	604	...	508
Carrier current equipment .....	...	20, 224	...	2
Multiplex equipment .....	...	2	...	4, 111
Traffic signal systems .....	...	751	...	722
Fire alarm signal systems .....	...	1, 648	...	2, 071
Interior signal and clock systems, excluding telephones and inter-office communication sets .....	...	2, 179	...	4, 619
Electronic tubes:				
Electronic receiving tubes:				
Entertainment type .....	15, 881, 939	11, 287	14, 132, 185	10, 076
Other, including power, industrial and military .....	538, 500	3, 079	308, 818	2, 141
Television picture tubes, including rebuilt tubes .....	622, 645	12, 513	657, 466	12, 375
Miscellaneous electronic equipment:				
Antennae and antenna parts and mountings, domestic type .....	...	3, 119	...	3, 047
Resistors, electronic, excluding power service .....	...	4, 872	...	5, 307
Electronic control (replays, photo-electric timing, capacitance, etc. and electronic control panels for industrial application) .....	...	1, 713	...	2, 277
Radio frequency heating equipment .....	...	115	...	2
Spare parts (less tubes) for maintenance of electronic telecommunication equipment and other electronic equipment, commercial and defence .....	...	4, 909	...	6, 041
Contract maintenance of electronic telecommunication equipment and other electronic equipment, commercial and defence .....	...	4, 245	...	5, 241
Electronic sound equipment, including amplifiers, loud speakers, public address systems, etc. ....	...	5, 202	...	5, 417
All other radio and electronic equipment <sup>3</sup> .....	...	36, 982	...	52, 378
<b>Totals<sup>4</sup></b> .....	...	<b>311, 070</b>	...	<b>355, 400</b>

<sup>1</sup> For record players, radio and television receiving sets, see Catalogue No. 43-205.

<sup>2</sup> Confidential, included with "All other radio and electronic equipment".

<sup>3</sup> (a) including semi-conductors, crystals, closed circuit industrial television, sonar equipment etc. where less than three firms reported shipments.

(b) Does not include capacitors, see Table 8 B.

(c) Transformers for radio, T.V. and other electronic applications not included, see Catalogue No. 43-207.

<sup>4</sup> There is also other electronic equipment included in Catalogue No. 47-206 "Scientific and Professional Equipment Manufacturers".

**B. Capacitors**

Item	Value	
	1962	1963
	\$'000	
Radio and T.V. capacitors, including radio condensers .....	5, 569	4, 251
Capacitors for electronic application (other than radio and T.V.) .....	4, 752	6, 670
Fluorescent ballast capacitors .....		
Miscellaneous capacitors .....		
<b>Totals</b> .....	<b>10, 322</b>	<b>10, 921</b>



**List of Establishments classified to This Industry, 1963**

(Does not include establishments classified to other industries, which as a secondary activity, manufacture products typical of this industry)

Name	Location
<b>Nova Scotia:</b>	
EMI - Cossor Electronics Ltd.	Dartmouth
<b>New Brunswick:</b>	
Radio Engineering Products Ltd.	Campbellton
<b>Quebec:</b>	
Alpha Electronic Products Co. Reg'd.	205 St. Zotique St. W., Montreal 8
Amplitrol Electronics Ltd.	7080 Hutchison St., Montreal
Audio-Video Inc.	3155 Hochelaga St., Montreal
Audio Vox Intercom Inc.	9720 Waverley St., Montreal 12
Auto Vox Inc.	Quebec
Canadian Aviation Electronics Ltd.	Ville St. Laurent
Canadian Cameo Chime Co. Ltd.	10332 Lille St., Montreal
Chaput, Paul Ltee.	2626 Bates Rd., Montreal
Constanta Company of Canada Limited, The	Verdun
Eclipse Electrical Alarm Inc.	5868 Delorimier St., Montreal 35
Electrolabs Reg'd.	2500 Bates Rd., Montreal
Halburton & White Limited	8235 Mountain Sights Ave., Montreal
International Systems Ltd.	St. Laurent
King's Electronics (Canada) Ltd.	2425 Grand Blvd. Montreal
Kirkland, H.R. (Canada) Ltd.	4604 Coolbrook Ave., Montreal
Microwave Devices Ltd.	Ville St. Leonard
Multi-Vox Ltd.	9967 St. Michel Blvd. Montreal
National Semiconductors Ltd.	St. Laurent
Northern Electric Co. Ltd.	1261 Shearer St., Montreal
Pylon Electronic Development Co. Ltd.	Ville La Salle
R.C.A. Victor Company Ltd.	1001 Lenoir St., Montreal 30
R.C.A. Victor Company Ltd.	Cowansville
Rivard Electronic Research & Mfg. Ltd.	811 Chatham St., Montreal 3
Standard Electric Time Co. of Canada Ltd., The	Pointe Claire
Standard Telephones & Cables Mfg. Co. (Canada) Ltd.	101 Louvain St. W., Montreal 11
Superior Electronics Inc.	2255 Dandurand St., Montreal
Televox Systems Inc.	Quebec 8
<b>Ontario:</b>	
Aerovox Canada Ltd.	1551 Barton St. E., Hamilton
Amphenol Canada Ltd.	349 Carlaw Ave., Toronto 8
Amplifone Canada Ltd.	Belleville
Andrew Antenna Corp. Ltd.	Whitby
Antiference (Canada) Ltd.	169 Bartley Rd., Toronto 16
Arrow Radio Co. Ltd.	1829 Davenport Rd., Toronto 9
Audio Transformer Company Limited	Waterloo
Automatic Coil Mfg. Ltd.	50 Wingold Ave., Toronto 19
Automatic Electric (Canada) Limited	Brockville
Avionics Ltd.	Niagara on-the-Lake
Bayly Engineering Ltd.	Ajax
Beama Engineering Ltd.	76 Densley Ave., Toronto 15
Benco Television Associates Ltd.	Rexdale
Broy Engineering Ltd.	14 Old Weston Rd., Toronto 9
Canadian Arsenal Limited	651 Warden Ave., Scarborough
Canadian Astatic Limited	2273 Danforth Ave., Toronto 13
Canadian General Electric Company Limited (Electronic Equipment)	830 Landsdowne Ave., Toronto
Canadian General Electric Company Limited (Tube Section)	189 Dufferin St., Toronto
Canadian Industrial Consultants Ltd.	60 Newcastle St., Toronto 18
Canadian Stackpole Ltd.	550 Evans Ave., Toronto 14
Canadian Westinghouse Company Limited (Electronic Devices)	Longwood Rd., Hamilton
Canadian Westinghouse Company Limited (Tube Division)	Aberdeen Ave., Hamilton
Cannon Electric Canada Limited	160 Bartley Dr., Toronto 16
Capacitors of Canada Ltd.	38 Upton Rd., Scarborough
Centralab Canada Ltd.	Ajax
Collben Mfg. Co. Ltd.	Dundas
Collins Radio Co. of Canada Limited	11 Bermondsey Dr., Toronto
Consolidated Electronic Equipment Co. Ltd.	94 Sheppard Ave. W., Willowdale
Croven Limited	Whitby
CTS of Canada Ltd.	Streetsville
Dale Electronics Canada Ltd.	18 Howden Rd., Scarborough
Darcy, J.H. Limited	Smith Falls
Delhi Metal Products Ltd.	Delhi
Delta Electronics Ltd.	Ronson Rd., Rexdale
Eclipse Electronics Co.	153 Logan Ave., Toronto 8
Edwards of Canada Limited	Owen Sound
Electronic Craftsmen Ltd.	Waterloo
Electronic Materials International Ltd.	850 Belfast Rd., Ottawa
Electronics Corporation of America (Canada) Limited	520 Kipling Ave. S., Toronto 18
Erie Technological Products of Canada Ltd.	Trenton
Essex Electronics of Canada Ltd.	Trenton
Ferritronics Limited	Richmond Hill
Fire Devices Mfg. Ltd.	157 Willowdale Ave., Willowdale
General Instrument of Canada Ltd.	Waterloo
Graphico Precision Works Co.	74 Mack Ave., Scarborough
Gulton Industries (Canada) Ltd.	Gananoque
Hammond Manufacturing Co. Ltd.	Guelph
Industrials Canada Ltd.	362 Chilver Rd., Windsor
Jarry Hydraulics Ltd.	Hawkesbury
Kelk, George, Ltd.	5 Lesmill Rd., Don Mills
Lindsay Antenna & Specialty Products	Lindsay
Litton Systems (Canada) Limited	Rexdale
Marsland Eric & Company	Kitchener
Marsland Engineering Ltd.	Kitchener
McCurdy Radio Industries Limited	22 Front St. W., Toronto 1

List of Establishments classified to This Industry, 1963 - Concluded

Name	Location
<b>Ontario - Concluded:</b>	
McNeil Electronics Ltd.	5 Sable St., Toronto 15
Measurement Engineering Limited	Amprior
Morina Electronics Mfg. Co. Ltd.	41 Shorncliffe Rd., Toronto 18
Multi-Elmac of Canada Ltd.	Windsor
Northern Electric Company Ltd.	Bramalea
Northern Electric Company Limited	Belleville
Northern Electric Company Limited	London
Northern Radio Manufacturing Co. Ltd.	1950 Bank St., Ottawa 10
Potter & Brumfield Canada Ltd.	Guelph
Precision Electronic Components (1956) Ltd.	77 Densley Ave., Toronto 15
Presentey Engineering Products Ltd.	233 Armstrong St., Ottawa 3
Quality Hermetics Ltd.	45 Hollinger Rd., Toronto 16
Radio Components Ltd.	50 Wingold Ave., Toronto 19
Radio Condenser Company Limited	6 Bermondsey Rd., Toronto 16
Radio Speakers (Canada) Ltd.	37 Hanna Ave., Toronto 3
Raytheon (Canada) Ltd.	Waterloo
Renfrew Electric Co. Ltd.	349 Carlaw Ave., Toronto 6
R.C.A. Victor Company Ltd.	Renfrew
Richmond Hill Laboratories Ltd.	35 Crockford Blvd., Scarborough
Sinclair Radio Laboratories Ltd.	21 Toro Road, Downsview
Smallwood, S.G. Limited	Kitchener
Snelgrove, C.R. Co. Limited	141 Bond Ave, Don Mills
Soundmaster Limited	283½ Bank St., Ottawa
Sprague TCC (Canada) Ltd.	50 Bertal Rd., Toronto 15
Standard Coil Products (Canada) Ltd.	37 Drummond St., Toronto 15
Standard Television Products Limited	Kitchener
Stark, H.G. & Co. Ltd.	126 Willowdale Ave., Willowdale
Stark Electronic Instruments Ltd.	Ajax
Teleguipment Ltd.	London
Tenatronics Ltd.	Newmarket
T.M.C. Canada Ltd.	R.R. #5, Ottawa
Topping, F.V. Electronics Ltd.	94 Laird Dr., Toronto 17
Trans Wave Electronics Co. Ltd.	17 Colville Rd., Toronto 10
Tri-View Electronics Ltd.	8 Hafis Rd., Toronto
Uni-Tel Ltd.	120-5 Barbados Blvd., Scarborough
Vanal Mfg. Co. Ltd.	3600 Lake Shore Blvd W. Toronto 14
Varian Associates of Canada Ltd.	Georgetown
Watkins Electronics Ltd.	60 Wingold Ave., Toronto 19
Welwyn Canada Ltd.	London
Williamson-Hughes Ltd.	Kitchener
<b>Saskatchewan:</b>	
Western Television Laboratories Ltd.	1612-14 St, West, Saskatoon
<b>Alberta:</b>	
Automatic Electric (Canada) Limited	Lethbridge
Caltron Mfg. Ltd.	219-40th Ave, N.E., Calgary
Mandrel Industries Ltd.	303 Forge Road S.E., Calgary
<b>British Columbia:</b>	
Barvic Engineering Ltd.	909 Beach Ave., Vancouver 1
Crown Electronics	165 Pemberton Ave., North Vancouver
Ekolite Limited	525 E. Hastings St., Vancouver 4
Humble Manufacturing Co. Ltd.	1695 W. 2nd Ave., Vancouver 9
Lemkurt Electric Co. of Canada Ltd.	7018 Lougheed Hwy., Burnaby 2
McCarter Radio & Television Ltd.	1625 West 3rd Ave., Vancouver 9
Spilsbury & Tindall Ltd.	120 E. Cordova St., Vancouver 4
Vision Manufacturing Div. of S & V Mfg. Ltd.	Richmond
West Coast Radio Telephone Manufacturers	1366 W Pender St., Vancouver 5



# CONCEPTS AND DEFINITIONS

## Census of Manufactures

### General

The Census of Manufactures is an annual mail survey covering Canada's Manufacturing Industries. It is based on the Standard Classification of Industries and full details concerning the system may be found in the Standard Industrial Classification manual, Catalogue No. 12-501 which is available from the Queen's Printer or the Dominion Bureau of Statistics. In summary, the Classification as it relates to the manufacturing industries provides for a breakdown into 140 industries arranged in 20 major industry groups. Of the 140 (3 digit) industries, 18 are further broken down into 58 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 178 separate industries. They cannot all be published separately by province, however, because of the confidential nature of the data in certain provinces.

The reporting unit for the Census is designated as the **establishment** (see definition of "Establishment" in following section) and a return is requested from every establishment classified to a manufacturing industry. Although respondents are required to submit reports covering the calendar year, financial year reports other than the calendar year are accepted in instances where respondents find it impossible to supply calendar year data from accounting records. When an establishment is operated for only part of a year a report is required covering the period of operation.

There are four different questionnaires used in the Census of Manufactures; (a) short form (b) long form (c) head office questionnaire and (d) commodity questionnaire. The short and long forms are used to obtain principal statistics and commodities shipped from establishments classified to manufacturing industries and differ only in the amount of detail requested. The short form is a single-sheet questionnaire sent to small manufacturers generally reporting shipments of less than \$100,000; this cut-off, however, varies somewhat between industries. The head office questionnaire is generally used for company head offices and/or auxiliary units separately located from the manufacturing establishment(s), (see following notes on Head offices and auxiliary units). The Commodity questionnaire is used to survey certain establishments which are coded (on the basis of their principal activity) to industries other than manufacturing in the Standard Industrial Classification system, but which undertake some manufacturing as a subsidiary activity. This single-sheet questionnaire is designed to collect information on the quantity and value of goods of own manufacture shipped by such establishments in order to achieve full coverage of domestically manufactured commodities (see the following note under Shipments).

The results of the Census are presented in some 140 publications. In addition to these annual industry publications there are annual summary reports for Canada and the provinces and special reports giving principal statistics by detailed geographic areas, by type of ownership and size of establishment. A special annual report covering the shipments of all manufactured commodities arranged in alphabetical order is also published.

Since 1960 the following major changes have been implemented in the Census of Manufactures: (a) a revised Standard Industrial Classification (b) a new establishment definition and (c) an extension of the establishment definition to cover the non-manufacturing activities of manufacturing establishments. The statistics presented in the various 1963 reports reflect the complete implementation of these changes and enable comparisons to be made with the years 1961 and 1962. For a complete description of the procedures followed in establishing the revised series, reference should be made to the Explanatory Notes included in the 1960, 1961 and 1962 industry publications. The statistical framework within which the Census of Manufactures is now carried out is based on the following concepts and definitions which have been developed as part of a general programme to achieve a fully integrated system of economic statistics.

### Establishment

A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing activities. The majority of such establishments are firms but many firms have more than one establishment. Such firms are requested to submit a separate Census of Manufactures report for each manufacturing establishment which can meet the reporting requirements embodied in the following definition of the "establishment":

"The smallest unit which is a separate operating entity capable of reporting the following principal statistics:

- Materials and supplies used
- Goods purchased for resale as such
- Fuel and power consumed
- Number of employees and salaries and wages
- Man-hours worked and paid
- Inventories
- Shipments or sales."

Each establishment is required to report on all the activities carried out within its accounting boundaries (except income from investments such as rent, interest and dividends) and data on the different activities (manufacturing, trading in goods not of own manufacture, construction by own labour

force, revenue from services, etc.) are requested to be reported separately. It should be noted that the statistics for separate activities are not completely consistent since some respondents cannot distinguish, in their records, materials, shipments and inventories relating solely to their own manufacturing activities. For example, inventory of goods purchased for re-sale may not be distinguishable from inventory of own manufactured goods. Complete consistency, therefore, can be obtained only at the "all operations" (total activity) level and for studies or statistical measures requiring accurate coordinated data, the "total" statistics should be used.

The number of establishments represents the number of operating units that are principally engaged in the activities of the manufacturing industries to which they have been classified. These units do not necessarily represent the total number engaged in the production of a commodity mainly produced in a certain industry. Some commodities are produced as secondary products in other manufacturing and non-manufacturing industries. It should be noted that head offices and auxiliary units which are surveyed separately are not included in the establishment count, (see following notes on head offices and auxiliary units).

#### **Head Offices and Auxiliary Units**

All head offices and auxiliary units of companies classified to the manufacturing industries such as sales offices, administrative offices, warehouses, laboratories, etc. are now surveyed as part of the Census of Manufactures.

These head offices and auxiliary units are either included in an establishment report or are surveyed by means of the head office questionnaire. The former is the most common case where a single establishment firm has its executive personnel, sales office, etc. located at the site of the manufacturing plant (establishment). The special head office questionnaire is generally used where a firm, regardless of the number of establishments, has separately located offices or auxiliary units. Such offices or units do not constitute establishments within the Census of Manufactures as they do not normally generate operational revenues, but give rise only to costs of operations (mainly salaries and wages) which are automatically included in the value of shipments or sales. Although not considered as establishments, and hence, not included in the "establishment" count for an industry, the operational costs are reflected in either the "Industry" statistics (3 or 4 digit level) or the "Major group" statistics (2 digit level) according to the following rules:

(a) In the case of single establishment firms, statistics for separately located offices and units are classified to the same industry (3 or 4 digit) as the establishment;

(b) In the case of multi-establishment firms, the statistics for such offices and units are coded to the same industry as the establishments of the

firm, when all establishments are in the same industry (3 or 4 digit). When establishments of such firms are coded (1) to different industries within a major group, (2) to industries in different major groups or (3) to industries in different divisions of the Standard Industrial Classification, then the statistics are included in the major group totals (2 digit level) in which the major part of the company's operations are classified. Although this may result in some distortion of major group statistics in the case of (2) and (3) the statistics at the industry (3 or 4 digit) level in all cases will be left free of these company-wide data.

#### **Employees**

##### **(a) Production and related workers — Manufacturing activity**

In addition to those engaged in production and assembling activities, they include those employed in storing, inspecting, handling, packing, warehousing, etc. They also include employees engaged in maintenance, repair, janitorial and watchman services and line supervisors (working foremen) engaged in similar work to that of the employees they supervise. Production and related workers engaged in manufacturing activity are reported as those receiving pay during the last pay period of each month, an average for the year being obtained by summing the monthly figures and dividing by 12. This procedure is followed even though the establishment did not operate in all months in order to arrive at equivalent annual full-time employment. The numbers are somewhat affected by turnover, in that employment is overstated when an employee changes employment during a pay period. The man-hours of production and related workers in manufacturing activity represent total man-hours paid (total hours at work during the calendar year plus hours not worked but nevertheless paid for, such as paid vacations, sick leave, statutory holidays, etc.). In reporting overtime hours, respondents are requested to report only hours actually at work. It should be noted that the division of hours paid into production and related workers payrolls results in average hourly earnings and does not represent hourly wage rates which are collected and published by the Department of Labour and which are based on selected occupations.

##### **(b) Production and related workers — Non-manufacturing activities**

Such employees include those on manufacturing establishments' payrolls engaged in activities such as construction undertaken for the use of these establishments, some outside piece-workers employed in certain industries, logging employees who are reported as part of a sawmilling establishment and any other production workers who are not engaged in manufacturing-type operations.

##### **(c) Administrative and office employees**

This category includes all executive and supervisory officials such as presidents, vice-presidents, comptrollers, secretaries, treasurers,



etc., together with managers, professional, technical and research employees, superintendents and factory supervisors above the line supervisor or working foreman level, and clerical staffs. Also included are employees in activities such as advertising, credit collections, purchasing, personnel, legal, medical, etc. It should be noted that prior to 1961 this category also included working owners and partners. Also included in this category are employees located at head offices or auxiliary units separately located from the establishment; these are generally included in the figures for the province in which they are located according to the rules outlined under "Head offices and auxiliary units" above.

#### **(d) Sales and distribution workers**

This category includes office personnel whose salaries are charged to selling expense, travelling salesmen, driver salesmen, truckdrivers and their helpers, etc. It may also include some sales employees who are reported as part of a manufacturing establishment but are not working at the establishment's location. These are generally broken down by province in cases where more than 15 employees are involved in any one province. The figures exclude persons working on a commission basis who are not considered regular employees of the establishment.

#### **(e) Total Employees**

This total comprises the foregoing categories including employees located at separately located head offices and auxiliary units. The numbers of employees included under categories (b), (c) and (d) are reported in the form of annual averages and represent as closely as possible full time employment; adjustments are made when reported figures indicate the existence of part time or seasonal employment. In all the above categories, figures on employment refer to the calendar year whether or not other establishment statistics can only be reported on a fiscal year other than the calendar year.

#### **Working Owners or Partners**

These are not now included in the statistics of employees and salaries and wages. There is some duplication in numbers when a person owns more than one establishment and is reported as a working owner on each Census return. Withdrawals of working owners defined as amounts withdrawn by owners or partners for normal living expenses excluding withdrawals for payment of income tax.

#### **Salaries and Wages**

Salaries and wages refer to gross earnings of employees **before** deductions for income tax and employees contributions to social services such as sickness, accident and unemployment insurance, pensions, etc. They include all salaries, wages, bonuses, profits shared with employees, the value of room and board where provided, commissions (paid to regular employees only) as well as any

other allowance forming part of the worker's earnings. Payments for over-time are included. Figures on salaries and wages refer to the calendar year.

#### **Fuel and Electricity**

Figures for fuel refer to amounts actually used (including fuel used in cars, trucks, locomotives, etc.), not to purchases unless the quantities are substantially the same. **Any fuel and electricity produced by establishments for internal consumption are not included in the total cost.** Values represent laid down cost at the establishment including freight, duty, etc. Although fuel and electricity used is considered part of manufacturing activity it should be noted that it also includes relatively small amounts used in non-manufacturing activities since these cannot be reported separately.

#### **Materials and Supplies**

##### **(a) Manufacturing activities**

Figures represent quantities and laid down cost values, at the establishment, of materials, supplies and purchased components owned and used during the year in manufacturing activities and related processes. These statistics represent only commodity items or physical goods (cost of services or overhead charges such as advertising, insurance, depreciation, etc. are not included) whether purchased from others or received as transfers (in the form of materials, components or semi-processed goods) from other establishments of the reporting company. Included are maintenance and repair supplies not chargeable to fixed assets accounts and any amounts charged by other establishments for work done on materials owned by the reporting establishment. Cost of repairs or maintenance done by outside contractors and cost of returnable containers are not included.

##### **(b) Non-manufacturing activities**

###### **1. Purchases for re-sale as such**

Figures represent cost of materials or products purchased from others by the reporting establishment (or received as transfers from other establishments of the reporting company) for re-sale as such in the same condition as purchased. Included are any finished products received on consignment from other countries.

###### **2. Other materials and supplies used**

Figures represent the cost of materials and supplies, if any, used in new construction and in the production of machinery and equipment (for the use of the reporting establishment) by the establishment's own employees. Included are materials used for any capital repairs and alterations carried out by the establishment's employees. Amounts paid to outside contractors for construction and repair work are not included nor is the cost of purchased machinery and equipment. Also included is the cost of office supplies not chargeable to



fixed assets accounts and the cost of such other items of materials and supplies used as food, beverages and supplies for establishment-operated cafeterias and lunch counters, first aid and medical supplies, laboratory supplies, etc.

## **Shipments**

### **(a) General**

The figures represent revenue from all production, sales, services and related activities of reporting establishments with shipments valued in Canadian dollars at the point at which the establishment relinquishes control. The unsold portion at year end of consignment shipments in Canada is treated as inventory and not as shipments but all shipments to foreign countries for which the form B13 "Customs Canada Export Entry" has been completed, are treated as shipments.

In those industries where work on principal products extends over a relatively long period, (Fabricated Structural Metal Industry, Aircraft and Parts Manufacturers, Railroad Rolling Stock Industry and Shipbuilding and Repair Industry) the value of production rather than the value of shipments is recorded. There are certain establishments in other industries which also operate on a basis of progress payments. For these establishments, shipments are also adjusted to work put in place on the basis of the net change in progress payments over the year.

### **(b) Shipments of goods of own manufacture**

These figures represent shipments of goods made from own materials either in the reporting establishments or by other manufacturers on the basis of a charge to the reporting establishments for work done. Included are revenue from repair and custom work, amounts received in payment for work done on materials owned by other establishments and the cost (book value) of any goods shipped on a rental basis.

All products and by-products of own manufacture shipped from the establishment are covered, including transfer shipments to sales outlets, distributing warehouses or to other manufacturing plants of the reporting firm, when such units are treated as separate establishments. The value of shipments are net of returned goods, discounts, returns, allowances, sales tax and excise taxes and duties, returnable containers and charges for outward transportation by common or contract carriers. Transportation or delivery expense incurred by the reporting establishment's own carriers are included.

Shipments of goods of own manufacture of establishments which are coded to some other division of the Standard Industrial Classification (on the basis of principal activity) but which are engaged in manufacturing as a subsidiary activity are collected by means of the Commodity questionnaire referred to earlier. Such shipments together

with shipments of goods of own manufacture of establishments forming the universe of manufacturing industries are compiled and recorded in the various industry publications.

### **(c) Shipments of goods not of own manufacture**

These figures represent the net selling value at establishment (net of discounts, returns, allowances, sales taxes and excise duties and taxes and transportation charges by common or contract carriers) of all products or materials (including products transferred from other establishments of the reporting firm) sold as such in the same condition as purchased or received as transfers. For those industries which ship such goods on a rental basis, the value of shipments represents the book value of these goods. All sales of consignment goods from other countries are included.

### **(d) Other revenue**

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs, alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishment's own employees and for which depreciation accounts are maintained. Included also are any revenues from the sale of electricity and from any operations performed by the establishment's own employees, such as revenue from goods produced or purchased for rental (the book value of such goods are included as part of shipments of goods of own manufacture or shipments of goods not of own manufacture), servicing revenues, commissions on sales (when not included in value of sales), revenue for company-operated cafeterias and lunch counters and revenue from outside installation or construction work not related to the establishment's own products, sale of used materials (excluding sale of used fixed assets) research and development work, etc. As mentioned previously the figures do not include non-operating revenue such as rent, dividends, interest, etc.

## **Inventories**

### **(a) Manufacturing activities**

Values represent the book values of manufacturing inventory owned in Canada. Inventories held for which progress payments have been received are not included. Where progress payment accounts are maintained, the change in these accounts is treated as a net adjustment to shipments. Figures consist of inventory owned at the plant and at warehouses or selling outlets which are treated as extensions of establishments for the purpose of reporting shipments. Inventory owned in transit in Canada or on consignment in Canada is included. Goods shipped abroad and held in inventory are included in shipments. Opening inventories may differ from the closing inventories of the previous year because of changes in classification, the



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receipt of revised data, the inclusion of new establishments and the removal of establishments which did not operate during the survey year.

**(b) Non-manufacturing activities**

Figures represent the book value of inventory of goods purchased for re-sale as such without further processing, owned by the reporting establishments and held at plants and at any warehouses or selling outlets which are treated as extensions of establishments. Other characteristics are the same as in (a) above.

**Value Added**

**(a) By manufacturing activities**

Figures are compiled by deducting the cost of materials and fuel and electricity consumed from the value of production (value of shipments adjusted for changes in the value of inventories of finished goods and goods in process).

**(b) By non-manufacturing activities**

The figures are compiled by deducting the cost of goods purchased for re-sale (adjusted for changes in the value of inventories of goods

purchased for re-sale) and the cost of other materials and supplies used from the value of shipments of goods not of own manufacture, plus other revenue.

**(c) By Total activities**

The figures consist of value added by manufacturing activities plus value added by non-manufacturing activities. This total value added figure may, in some cases, be less than value added by manufacturing activities as a result of expenditures associated with non-manufacturing exceeding revenues from such activities or because of a decrease in inventory of goods not of own manufacture exceeding the mark-up on the sale of such goods. "Value added" is sometimes referred to as net production. However, to arrive at the National Accounts concept of net production, or Gross Domestic Product at "Factor cost" it would be necessary to subtract also the cost of advertising, insurance and other business expenses which are not collected as part of the annual Census of Manufactures. "Value added" figures for the primary industries, manufacturing and construction are published in DBS publication Catalogue No. 61-202, "Survey of Production".