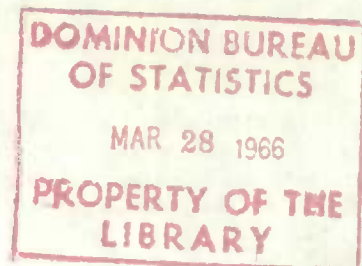


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ANNUAL



# SMELTING AND REFINING 1963

ANNUAL CENSUS  
OF MANUFACTURES

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## SMELTING AND REFINING

1963

This report includes statistics for industry 295—Smelting and Refining of the Standard Industrial Classification Manual (Catalogue No. 12-501).

Data presented in Tables 1-6 of this report reflect, for the subject industry, a further advance in the implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept which are now being used by the Dominion Bureau of Statistics in its compilation of industry statistics—see text and items "Standard Industrial Classification" and "Establishment" in the Explanatory Notes of the 1961 report; however, full implementation is being delayed until investigations into certain areas of the industry affected by the changes in concept are completed. Important revisions in the statistics for this industry are indicated and, under these circumstances, material presented in the current report should be considered to be provisional only. Fully revised data will be included in subsequent issues of this report and will incorporate changes for all years back to and including 1961.

Commodity statistics are shown in Table 7 and subsequent tables. These tables include data from other industries. As an example, the gold shipped by the gold quartz mines, in bullion to the mint, and in gold concentrates exported are included in Table 8. The commodity tables show the producers' shipments from all the Canadian mines, including the material which may have by-passed the smelters and refineries.

### 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.
- p preliminary figures.
- r 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	Establishments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and electricity	Cost of materials and supplies	Value of shipments of goods of own manufacture	Value added	Working owners and partners		Total employees		Total value added
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1961													
Totals .....	24	23,508	50,338	118,532	49,000	891,951	1,471,280	530,328	-	-	29,839	159,145	536,155
1962													
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	-	-	-	-	-	-	-	-	-	-	-	-	-
New Brunswick .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Quebec .....	9	8,140	17,270	43,505	18,105	448,709	835,650	169,036	-	-	11,036	61,443	175,789
Ontario .....	8	8,748	16,654	41,917	17,987	334,435	608,216	255,793	-	-	10,487	53,840	255,826
Manitoba .....	2	5,733	12,394	30,627	9,611	132,822	304,982	162,550	-	-	7,780	44,157	165,204
Saskatchewan .....	1												
Alberta .....	1												
British Columbia .....	2												
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .....	23	22,621	46,320	116,049	45,703	915,967	1,549,049	587,379	-	-	29,303	159,439	596,819
1963													
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	-	-	-	-	-	-	-	-	-	-	-	-	-
New Brunswick .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Quebec .....	9	8,614	18,156	46,363	19,460	505,811	683,538	158,268	-	-	11,577	66,051	165,516
Ontario .....	8	7,275	14,980	35,829	16,730	261,768	499,049	220,551	-	-	9,135	48,955	222,424
Manitoba .....	2	5,858	12,394	30,890	9,849	151,080	337,573	176,644	-	-	7,932	45,111	178,877
Saskatchewan .....	1												
Alberta .....	1												
British Columbia .....	2												
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .....	23	21,747	45,530	113,081	46,038	918,660	1,520,160	555,462	-	-	28,644	160,118	566,817



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	
1962													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999	-	-	-	-	-	-	-	-	-	-	-	-	-
25,000 " 49,999	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 " 99,999	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 " 199,999	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 " 499,999	-	-	-	-	-	-	-	-	-	-	-	-	-
500,000 " 999,999	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 " 4,999,999	3	772	1,528	3,243	1,653	4,214	10,033	4,167	-	-	928	4,376	4,229
5,000,000 and over	20	21,849	44,791	112,806	44,050	911,752	1,539,015	583,212	-	-	28,375	155,063	592,590
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	23	22,621	46,320	116,049	45,703	915,967	1,549,049	587,379	-	-	29,303	159,439	596,819
1963													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999	-	-	-	-	-	-	-	-	-	-	-	-	-
25,000 " 49,999	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 " 99,999	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 " 199,999	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 " 499,999	-	-	-	-	-	-	-	-	-	-	-	-	-
500,000 " 999,999	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 " 4,999,999	23	21,747	45,530	113,081	46,038	918,660	1,520,160	555,462	-	-	28,644	160,118	566,817
5,000,000 and over	...	...	...	...	...	...	...	...	...	...	...	...	...
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	23	21,747	45,530	113,081	46,038	918,660	1,520,160	555,462	-	-	28,644	160,118	566,817

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	
1962													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999	-	-	-	-	-	-	-	-	-	-	-	-	-
25,000 " 49,999	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 " 99,999	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 " 199,999	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 " 499,999	8	2,152	4,336	9,924	6,292	162,510	191,729	22,926	-	-	2,515	12,456	22,957
500,000 " 999,999	15	20,469	41,983	106,125	39,410	753,457	1,357,320	564,452	-	-	26,788	146,984	573,862
1,000,000 " 4,999,999	...	...	...	...	...	...	...	...	...	...	...	...	...
5,000,000 and over	...	...	...	...	...	...	...	...	...	...	...	...	...
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	23	22,621	46,320	116,049	45,703	915,967	1,549,049	587,379	-	-	29,303	159,439	596,819
1963													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999	-	-	-	-	-	-	-	-	-	-	-	-	-
25,000 " 49,999	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 " 99,999	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 " 199,999	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 " 499,999	7	1,679	3,473	7,760	5,231	139,362	159,540	14,946	-	-	1,991	9,842	15,353
500,000 " 999,999	16	20,068	42,057	105,321	40,807	779,297	1,360,621	540,517	-	-	26,653	150,276	551,305
1,000,000 " 4,999,999	...	...	...	...	...	...	...	...	...	...	...	...	...
5,000,000 and over	...	...	...	...	...	...	...	...	...	...	...	...	...
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	23	21,747	45,530	113,081	46,038	918,660	1,520,160	555,462	-	-	28,644	160,118	566,817

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	
<b>1962</b>													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999	-	-	-	-	-	-	-	-	-	-	-	-	-
25,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
500,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
5,000,000 and over	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals</b>	<b>23</b>	<b>22,621</b>	<b>46,320</b>	<b>116,049</b>	<b>45,703</b>	<b>915,967</b>	<b>1,549,049</b>	<b>587,379</b>	-	-	<b>29,303</b>	<b>159,439</b>	<b>596,819</b>
<b>1963</b>													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999	-	-	-	-	-	-	-	-	-	-	-	-	-
25,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
500,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-
5,000,000 and over	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals</b>	<b>23</b>	<b>21,747</b>	<b>45,530</b>	<b>113,081</b>	<b>46,038</b>	<b>918,660</b>	<b>1,520,160</b>	<b>555,462</b>	-	-	<b>28,644</b>	<b>160,118</b>	<b>566,817</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	
<b>1962</b>													
Under 5 employed	-	-	-	-	-	-	-	-	-	-	-	-	-
5- 14 employed	-	-	-	-	-	-	-	-	-	-	-	-	-
15- 49 "	-	-	-	-	-	-	-	-	-	-	-	-	-
50- 99 "	-	-	-	-	-	-	-	-	-	-	-	-	-
100- 199 "	-	-	-	-	-	-	-	-	-	-	-	-	-
200- 499 "	-	-	-	-	-	-	-	-	-	-	-	-	-
500 employed and over	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals</b>	<b>23</b>	<b>22,621</b>	<b>46,320</b>	<b>116,049</b>	<b>45,703</b>	<b>915,967</b>	<b>1,549,049</b>	<b>587,379</b>	-	-	<b>29,303</b>	<b>159,439</b>	<b>596,819</b>
<b>1963</b>													
Under 5 employed	-	-	-	-	-	-	-	-	-	-	-	-	-
5- 14 employed	-	-	-	-	-	-	-	-	-	-	-	-	-
15- 49 "	-	-	-	-	-	-	-	-	-	-	-	-	-
50- 99 "	-	-	-	-	-	-	-	-	-	-	-	-	-
100- 199 "	-	-	-	-	-	-	-	-	-	-	-	-	-
200- 499 "	-	-	-	-	-	-	-	-	-	-	-	-	-
500 employed and over	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals</b>	<b>23</b>	<b>21,747</b>	<b>45,530</b>	<b>113,081</b>	<b>46,038</b>	<b>918,660</b>	<b>1,520,160</b>	<b>555,462</b>	-	-	<b>28,644</b>	<b>160,118</b>	<b>566,817</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	
<b>1962</b>													
Individual ownerships .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Partnerships .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Incorporated companies .....	23	22,621	46,320	116,049	45,703	915,967	1,549,049	587,379	-	-	29,303	159,439	596,819
Cooperatives .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals .....</b>	<b>23</b>	<b>22,621</b>	<b>46,320</b>	<b>116,049</b>	<b>45,703</b>	<b>915,967</b>	<b>1,549,049</b>	<b>587,379</b>	<b>-</b>	<b>-</b>	<b>29,303</b>	<b>159,439</b>	<b>596,819</b>
<b>1963</b>													
Individual ownerships .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Partnerships .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Incorporated companies .....	23	21,747	45,530	113,081	46,038	918,660	1,520,160	555,462	-	-	28,644	160,118	566,817
Cooperatives .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals .....</b>	<b>23</b>	<b>21,747</b>	<b>45,530</b>	<b>113,081</b>	<b>46,038</b>	<b>918,660</b>	<b>1,520,160</b>	<b>555,462</b>	<b>-</b>	<b>-</b>	<b>28,644</b>	<b>160,118</b>	<b>566,817</b>

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

	Manufacturing activity		Non-manufacturing activities		Total activity	
	1962	1963	1962	1963	1962	1963
<b>\$'000</b>						
<b>Output</b>						
1. Shipments and other revenue .....	1,549,049	1,520,160	10,964	13,924	1,560,013	1,534,084
Inventories - Goods of own manufacture:						
Add closing - Goods in process .....	...	...	...	...	...	...
Finished goods .....	...	...	...	...	...	...
Less opening - Goods in process .....	...	...	...	...	...	...
Finished goods .....	...	...	...	...	...	...
2. Net inventory change .....	...	...	...	...	...	...
3. Gross output (1 + 2) .....	1,549,049	1,520,160	10,964	13,924	1,560,013	1,534,084
<b>Input</b>						
4. Purchases of goods not of own manufacture .....	...	...	-	-	-	-
Inventories - Goods not of own manufacture:						
Add opening .....	...	...	-	-	-	-
Less closing .....	...	...	-	-	-	-
5. Cost of goods sold (not of own manufacture) .....	...	...	-	-	-	-
6. Materials, supplies, components and semi-processed goods	915,967	918,660	1,524	2,569	917,491	921,229
7. Fuel and electricity .....	45,703	46,038	...	...	45,703	46,038
8. Gross input (5 + 6 + 7) .....	961,670	964,698	1,524	2,569	963,194	967,307
Census value added (3 - 8) .....	587,379	555,462	9,440	11,355	596,819	566,817



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- istrative 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 .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Brunswick .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quebec .....	8,129	11	288	37	2,317	251	2	1	10,736	300	43,505	1,548	16,365	26	61,443
Ontario .....	8,734	14	-	-	1,541	198	-	-	10,275	212	41,917	-	11,922	-	53,840
Manitoba .....	5,699	34	836	107	935	169	-	-	7,470	310	30,627	6,058	7,471	-	44,157
Saskatchewan .....															
Alberta .....															
British Columbia .....															
Yukon and Northwest Terri- tories .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .....	22,562	59	1,124	144	4,793	618	2	1	28,481	822	116,049	7,606	35,758	26	159,439
1963															
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Brunswick .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quebec .....	8,603	11	364	37	2,283	276	2	1	11,252	325	46,363	2,256	17,398	34	66,051
Ontario .....	7,268	7	146	-	1,514	196	3	1	8,931	204	35,829	697	12,392	38	48,955
Manitoba .....	5,824	34	836	97	957	184	-	-	7,617	315	30,890	6,145	8,077	-	45,111
Saskatchewan .....															
Alberta .....															
British Columbia .....															
Yukon and Northwest Terri- tories .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .....	21,695	52	1,346	134	4,754	656	5	2	27,800	844	113,081	9,099	37,866	71	160,118

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 .....	22,855	59	20,826	51
February .....	22,748	59	20,640	51
March .....	22,690	58	20,646	51
April .....	23,216	59	21,373	51
May .....	23,272	63	21,684	51
June .....	23,579	65	22,360	51
July .....	23,638	60	22,875	55
August .....	23,450	57	22,569	55
September .....	22,481	56	22,147	51
October .....	20,977	56	21,916	52
November .....	20,966	57	21,746	51
December .....	20,880	55	21,538	51
Average for establishments reporting monthly detail (collected only for large establishments) ..	22,562	59	21,695	52
Average for small establishments (only annual averages collected) .....	...	...	...	...
Average for all establishments .....	22,562	59	21,695	52

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 .....	-	-	-	-	-	-
New Brunswick .....	-	-	-	-	-	-
Quebec .....	46,797	8,729	33,720	89,246	-	89,246
Ontario .....	42,916	24,054	29,273	96,243	-	96,243
Manitoba .....	31,505	7,097	33,202	71,803	-	71,803
Saskatchewan .....						
Alberta .....						
British Columbia .....						
Yukon and Northwest Territories .....	-	-	-	-	-	-
Totals .....	121,218	39,879	96,194	257,292	-	257,292
Closing:						
Newfoundland .....	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-
Nova Scotia .....	-	-	-	-	-	-
New Brunswick .....	-	-	-	-	-	-
Quebec .....	49,169	8,015	26,565	83,750	-	83,750
Ontario .....	36,717	21,035	26,742	84,494	-	84,494
Manitoba .....	27,799	7,047	21,376	56,222	-	56,222
Saskatchewan .....						
Alberta .....						
British Columbia .....						
Yukon and Northwest Territories .....	-	-	-	-	-	-
Totals .....	113,685	36,097	74,683	224,466	-	224,466

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	478,165	441,577	5,714
(b) Imported .....	"	183,638	158,153	1,984
Sub-bituminous coal (from Alberta mines only) .....	"	6,527	-	-
Anthracite coal .....	"	93,342	110,617	1,752
Lignite coal .....	"	-	-	-
Coke .....	"	238,607	185,122	4,045
Gasoline (including gasoline used in cars and trucks) .....	Imp. gal.	928,942	261	292
Fuel oil including kerosene or coal oil .....	"	58,911,405	4,983	5,168
Wood .....	cord	1,688	61	67
Gas:				
(a) Liquefied petroleum gases .....	Imp. gal.	475,892	106	143
(b) Other manufactured gas .....	M cu.ft.	-	-	-
(c) Natural gas .....	"	12,117,311	4,443	5,079
Other fuel .....	"	...	19	21
Electricity purchased .....	kwh.	5,046,273,802	20,884	21,774
Steam purchased .....		-	-	-
2. Estimate for small establishments:				
Fuel and electricity .....		-	-	-
3. All establishments:				
Total fuel and electricity used .....	...	43,703	...	46,018

TABLE 6. Materials and Supplies - Manufacturing Activity

This table is not applicable to this industry

TABLE 7. Average Annual Metal Prices, in Canadian Dollars, 1954 - 63

Year	Gold	Silver	Copper	Lead	Zinc
	Troy oz.	Troy oz.	Pound	Pound	Pound
	dollars				
1954 .....	34.07	0.8326	0.2916	0.1333	0.1198
1955 .....	34.52	0.8818	0.3687	0.1438	0.1365
1956 .....	34.45	0.8968	0.4141	0.1551	0.1484
1957 .....	33.55	0.8737	0.2895	0.1396	0.1209
1958 .....	33.98	0.8681	0.2542	0.1136	0.1088
1959 .....	33.57	0.8778	0.2961	0.1061	0.1224
1960 .....	33.95	0.8891	0.3029	0.1068	0.1335
1961 .....	35.46	0.9426	0.2919	0.1021	0.1259
1962 .....	37.41	1.1650	0.3100	0.0992	0.1210
1963 .....	37.75	1.3840	0.3150	0.1100	0.1278

TABLE 8. Production of New Gold and Silver, 1959 - 63 (From all types of ores)

Year	Gold		Silver	
	Fine ounces	Value	Fine ounces	Value
		\$		\$
1959 .....	4,483,416	150,508,275	31,923,969	28,022,660
1960 .....	4,628,911	157,151,527	34,016,829	30,244,363
1961 .....	4,473,699	158,637,366	31,381,977	29,580,651
1962 .....	4,178,396	156,313,794	30,422,972	35,442,761
1963 .....	4,003,127	151,118,045	29,932,003	41,425,691

TABLE 9. Source of Canadian Gold Production, 1959 - 63

Source	1959	1960	1961	1962	1963
	per cent				
In alluvial gold .....	1.63	1.75	1.55	1.38	1.45
In crude gold bullion produced at mines .....	84.47	83.18	83.06	82.73	82.89
In base bullion produced at lead smelters .....	0.21	0.26	0.22	0.21	0.26
In blister copper .....	12.52	12.82	13.25	13.72	13.24
In ores, matte, slags, etc., exported .....	1.17	1.99	1.90	1.96	2.16

TABLE 10. Source of Canadian Silver Production, 1959 - 63

Source	1959	1960	1961	1962	1963
	per cent				
In silver-cobalt ores .....	20.85	21.04	14.92	15.47	16.88
In base bullion <sup>1</sup> .....	22.70	23.58	25.50	19.91	21.32
In gold bullion and placer .....	2.02	2.05	2.17	2.15	2.05
In blister and anode copper .....	24.04	23.52	24.38	26.46	26.27
In matte, copper ores and silver-lead ores, etc., exported (other than silver-cobalt ores) .....	30.39	29.81	33.03	36.01	33.48

<sup>1</sup> Includes silver bullion from silver-lead ores.

TABLE 11. Production of Copper, 1959-63 (From all types of ores)

Year	Copper in all forms <sup>1</sup>		Refined copper <sup>2</sup>
	Tons	Value	Tons
		\$	
1959 .....	395,269	233,102,813	365,366
1960 .....	439,262	264,846,637	417,029
1961 .....	434,088	255,157,626	406,359
1962 .....	457,385	282,732,696	382,868
1963 .....	452,559	284,403,710	378,911

<sup>1</sup> Blister copper plus recoverable copper in concentrates and matte exported.

<sup>2</sup> Does not include a small tonnage recovered from scrap in secondary smelters.

TABLE 12. Production of Copper, by Sources, 1962 and 1963

Source	1962		1963	
	Tons	Value	Tons	Value
		\$		\$
In blister and anode copper produced <sup>1</sup> .....	370,923	229,972,836	361,484	227,735,086
In ores, concentrates and any copper matte exported .....	69,874	43,304,801	77,151	48,592,702
In nickel-copper matte exported .....	16,588	9,455,059	13,924	8,075,922
Totals .....	457,385	282,732,696	452,559	284,403,710

<sup>1</sup> Includes a quantity of copper contained in gold-silver and nickel-copper ores shipped to Canadian smelters.

TABLE 13. Production<sup>1</sup> of Nickel, 1959-63

Year	Tons	Value
		\$
1959 .....	186,555	257,008,801
1960 .....	214,506	295,640,279
1961 .....	232,991	351,261,720
1962 .....	232,242	383,784,622
1963 .....	217,030	360,392,658

<sup>1</sup> Includes nickel in matte exported, refined nickel produced in Canada and nickel in oxides and salts sold or produced.

TABLE 14. Production of Lead (From all types of ores), 1959-63

Year	Lead in all forms <sup>1</sup>		Refined lead <sup>2</sup>
	Tons	Value	Tons
		\$	
1959 .....	186,696	39,616,835	135,296
1960 .....	205,650	43,926,888	158,510
1961 .....	230,435	47,054,765	171,833
1962 .....	215,329	42,721,341	152,217
1963 .....	201,165	44,256,199	155,000

<sup>1</sup> Lead content of base bullion produced from Canadian ores plus recoverable lead in ores exported.

<sup>2</sup> Includes some lead refined from foreign ores; does not include a small tonnage recovered from scrap in secondary smelters.



TABLE 15. Production of Zinc (From all types of ores), 1959-63

Year	Zinc in all forms <sup>1</sup>		Refined zinc <sup>2</sup>
	Tons	Value	Tons
		\$	
1959 .....	396,008	96,942,663	255,306
1960 .....	406,873	108,635,003	260,968
1961 .....	416,004	104,749,879	268,007
1962 .....	463,145	112,080,981	280,159
1963 .....	473,722	121,083,466	284,021

<sup>1</sup> Refined zinc produced in Canada plus recoverable zinc in ores exported.

<sup>2</sup> Includes some refined zinc from foreign ores; does not include a small tonnage recovered from scrap in secondary smelters.

TABLE 16. Production<sup>1</sup> of Bismuth and Cadmium, 1959-63

Year	Bismuth		Cadmium	
	Pounds	Value	Pounds	Value
		\$		\$
1959 .....	334,736	590,212	2,160,363	2,765,265
1960 .....	423,827	762,048	2,357,497	3,347,646
1961 .....	478,118	957,625	1,357,874	2,172,598
1962 .....	425,102	839,912	2,604,973	4,730,957
1963 .....	359,125	704,103	2,475,485	5,941,164

<sup>1</sup> Includes refined metal and recoverable metal in concentrates shipped.

TABLE 17. Production of Selenium and Tellurium, 1959-63

Year	Selenium		Tellurium	
	Pounds	Value	Pounds	Value
		\$		\$
1959 .....	368,107	2,576,749	13,023	27,999
1960 .....	521,638	3,651,466	44,682	156,388
1961 .....	430,612	2,798,978	77,609	376,404
1962 .....	487,066	2,800,830	58,725	352,350
1963 .....	468,772	2,273,545	76,842	499,473

TABLE 18. Production (Shipments) of New Aluminum and Magnesium, 1959-63

Year	Aluminum <sup>1</sup>	Magnesium	
	Tons	Pounds	Value
			\$
1959 .....	593,630	12,204,448	3,179,515
1960 .....	762,012	14,577,138	4,313,987
1961 .....	663,173	15,270,618	4,307,570
1962 .....	690,297	17,631,310	4,821,823
1963 .....	719,390	17,810,348	5,357,816

<sup>1</sup> All from imported ores.

TABLE 19. Production of New Antimony and Tin, 1959 - 63

Year	Antimony <sup>1</sup>		Tin <sup>2</sup>	
	Pounds	Value	Pounds	Value
		\$		\$
1959 .....	1,657,797	540,276	747,443	630,094
1960 .....	1,651,786	538,482	621,718	522,243
1961 .....	1,331,297	469,948	1,119,350	727,578
1962 .....	1,931,397	748,223	650,941	442,640
1963 .....	1,601,253	624,489	927,062	648,943

<sup>1</sup> Content of antimonial lead, Doré slag and flue dust.

<sup>2</sup> Tin content of concentrates and lead-tin alloy.

TABLE 20. Production (Shipments) of Molybdenum Concentrates and Tungsten Concentrates, 1959 - 63

Year	Molybdenite concentrates and molybdic oxide		Tungsten concentrates	
	Mo. content tons	Value \$	WO <sub>3</sub> content tons	Value \$
1959 .....	374	940,596	—	—
1960 .....	384	1,015,380	—	—
1961 .....	386	1,092,201	—	—
1962 .....	409	1,261,451	2	1,611
1963 .....	417	1,344,004	..	..

TABLE 21. Production of Cobalt and Arsenic, 1959 - 63

Year	Cobalt <sup>1</sup>		Arsenious oxide <sup>2,3</sup>	
	Pounds	Value	Tons	Value
		\$		\$
1959 .....	3,150,027	5,954,916	789	83,786
1960 .....	3,568,811	8,763,016	862	70,400
1961 .....	3,182,897	4,751,543	210	16,772
1962 .....	3,481,922	6,345,205	80	6,832
1963 .....	3,024,965	6,122,169	94	7,498

<sup>1</sup> Content in metal and oxide produced in Canada and in ores exported.

<sup>2</sup> Refined white arsenic produced in Canada plus arsenic content of crude arsenic exported. Excludes arsenic in ores exported from British Columbia as it is not paid for.

<sup>3</sup> Includes some arsenic recovered from foreign ores.

TABLE 22. Platinum Metal<sup>1</sup> Producers' Shipments, 1959 - 63

Year	Platinum palladium and other platinum metals	
	Troy ounces	Value
		\$
1959 .....	332,095	16,932,438
1960 .....	483,604	28,873,508
1961 .....	418,278	24,534,342
1962 .....	470,787	28,848,637
1963 .....	357,651	22,585,205

<sup>1</sup> Figures represent the metal content of concentrates produced from nickel-copper ores. Included are metals recovered from alluvial deposits.

TABLE 23. Production of Titanium Dioxide and Iron (Remelt), 1959-63

Year	Titanium dioxide, etc.		Iron (remelt)	
	Tons	Value	Tons	Value
		\$		\$
1959 .....	..	8,507,149	..	7,187,434
1960 .....	..	12,947,000	..	10,972,979
1961 .....	..	16,723,743	..	14,720,064
1962 .....	..	11,573,862	..	9,845,669
1963 .....	..	13,806,608	..	9,246,713

TABLE 24. Capacities of Canadian Copper Smelting and Refining Works, 1963

Company	Blast furnaces		Reverberatories		Converters
	Number	Annual capacity — Tons of ore and concentrates	Number	Annual capacity — Tons of ore and concentrates	Number
Falconbridge Nickel Mines, Ltd. ....	3	382,126	—	—	6
Hudson Bay Mining and Smelting Co., Ltd. ....	—	—	1	575,000	3
Noranda Mines Ltd. ....	—	—	3	1,600,000	5
International Nickel Co. of Canada, Ltd.:					
Copper Cliff .....	—	—	9	4,000,000	20
Coniston .....	4	800,000	—	—	—
Thompson .....	—	—	..	600,000	..
Caspe Copper Mines Ltd. ....	—	—	1	300,000	2
Annual capacity					
short tons					
Electrolytic copper refineries:					
Canadian Copper Refiners, Ltd. ....			284,000		
International Nickel Co. of Canada, Ltd. ....			168,000		

TABLE 25. Lead Smelting Capacity of Canada, 1963

Company	Number of blast furnaces	Annual capacity
		tons of charge
Consolidated Mining & Smelting Company of Canada, Limited, Trail, British Columbia .....	4	623,000

TABLE 26. Capacity of Electrolytic Zinc Plants in Canada, 1963

Company	Estimated annual capacity for cathode zinc
	short tons
Canadian Electrolytic Zinc Ltd. ....	75,000
Consolidated Mining & Smelting Company of Canada, Ltd. ....	200,000
Hudson Bay Mining & Smelting Co., Ltd. ....	84,000

**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>Quebec:</b>	
Aluminum Company of Canada Ltd. ....	Arvida, Shawinigan Falls, Isle Maligne, Beauharnois
Canadian British Aluminum Co., Ltd. ....	Baie Comeau
Canadian Copper Refiners Ltd. ....	Montreal East
Gaspe Copper Mines Ltd. ....	Murdochville
Noranda Mines Limited ....	Noranda
Quebec Iron and Titanium Corp. ....	Sorel
<b>Ontario:</b>	
Cobalt Refinery ....	Cobalt
Dominion Magnesium Ltd. ....	Haley
Falconbridge Nickel Mines Ltd. ....	Falconbridge
International Nickel Co. of Canada, Limited ....	Copper Cliff, <sup>2</sup> Coniston, Port Colborne
Eldorado Mining and Refining Ltd. ....	Port Hope
<b>Manitoba:</b>	
Hudson Bay Mining and Smelting Co. Limited <sup>1</sup> ....	Flin Flon
International Nickel Co. of Canada Limited ....	Thompson
<b>Saskatchewan:</b>	
Hudson Bay Mining & Smelting Co. Limited <sup>1</sup> ....	Flin Flon
<b>Alberta:</b>	
Sherritt Gordon Mines Ltd. ....	Fort Saskatchewan
<b>British Columbia:</b>	
Consolidated Mining & Smelting Co. of Canada Limited ....	Trail
Aluminum Company of Canada Ltd. ....	Kitimat

<sup>1</sup> Located on Manitoba-Saskatchewan boundary. For statistical purposes this plant is considered as two establishments.

<sup>2</sup> Includes smelter and refinery at this location which are treated as two establishments for statistical purposes.

Note: Information relating to operations of the Eldorado Mining and Refining Co. at Port Hope, Ontario, is excluded for the Years 1941-54.



# 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



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".







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