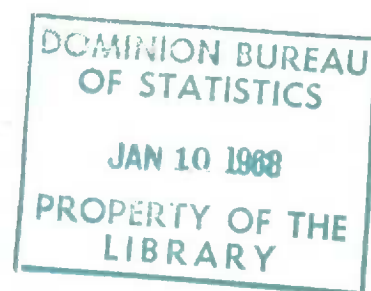


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ANNUAL



# IRON FOUNDRIES 1965

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OF MANUFACTURES

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## PUBLICATIONS

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## IRON FOUNDRIES

1965

For statistical purposes the industry titled Iron Foundries in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing iron castings, including cast iron pipe and fittings.

Value of shipments and other income of the Iron Foundries industry totalled \$182 million, an increase of \$36 million over 1964. This amount included shipments of iron castings and cast iron pipes and fittings and similar products valued at \$141 million, shipments of other products (secondary products) valued at \$26 million, and other revenue of \$15 million.

The increase in shipments (\$36 million) while largely reflecting a general increase in activity, is partly due to the transfer into this industry of a major establishment resulting from a change in accounting procedure by that establishment.

This industry's shipments of iron castings, cast iron pipes and fittings, and similar products represented 84 per cent of its manufacturing revenue. Secondary products shipped by this industry in 1965 included sundry machinery and parts, valves, automobile parts, jacks, chain, etc.

The cost of materials and supplies, fuel and electricity etc. (inputs), used in the production of goods of own manufacture, increased by \$15 million. Cost of inputs in 1965 represented 44.5 per cent of the value of shipments of own manufacture, compared to 45 per cent in 1964.

### 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. Principal Statistics, 1961-65

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		Employees		Value added
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Totals .....	140	6,862	14,308	27,461	2,277	37,403	94,625	53,655	36	118	8,178	34,612	54,882
1962													
Totals .....	133	7,246	15,326	30,116	2,545	45,919	107,453	60,157	27	111	8,546	37,409	61,784
1963													
Totals .....	131	7,880	16,856	34,175	2,671	50,809	115,671	63,788	30	128	9,216	41,361	66,202
1964													
Newfoundland .....	1	x	x	x	x	x	x	x	x	x	x	x	x
Prince Edward Island .....	1	x	x	x	x	x	x	x	x	x	x	x	x
Nova Scotia .....	4	73	136	248	13	228	677	449	x	x	93	347	493
New Brunswick .....	2	x	x	x	x	x	x	x	x	x	x	x	x
Quebec .....	41	1,372	3,242	5,781	395	15,892	30,586	13,895	11	45	1,670	7,271	13,971
Ontario .....	61	5,898	12,663	27,888	2,096	37,341	90,773	51,230	6	20	6,751	32,745	51,361
Manitoba .....	5	x	x	x	x	x	x	x	x	x	x	x	x
Saskatchewan .....	2	x	x	x	x	x	x	x	x	x	x	x	x
Alberta .....	5	199	421	919	74	2,092	5,008	2,806	—	—	240	1,217	2,849
British Columbia .....	12	350	711	1,801	65	1,570	4,989	3,380	x	x	430	2,277	3,617
Yukon and Northwest Territories	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals .....	134	8,232	17,883	37,992	2,747	58,441	136,531	74,775	24	94	9,620	45,661	75,856
1965													
Newfoundland .....	1	x	x	x	x	x	x	x	x	x	x	x	x
Prince Edward Island .....	1	x	x	x	x	x	x	x	x	x	x	x	x
Nova Scotia .....	4	77	149	277	15	269	769	490	x	x	97	379	557
New Brunswick .....	2	x	x	x	x	x	x	x	x	x	x	x	x
Quebec .....	39	1,502	3,485	6,416	477	16,257	30,933	15,768	9	39	1,823	8,098	16,220
Ontario .....	61	7,441	16,335	40,553	3,496	49,219	119,215	66,638	13	38	8,533	48,181	66,830
Manitoba .....	6	270	576	1,269	78	1,319	4,085	2,950	—	—	334	1,632	3,142
Saskatchewan .....	2	x	x	x	x	x	x	x	x	x	x	x	x
Alberta .....	6	217	466	973	105	2,460	5,366	2,890	—	—	263	1,315	2,907
British Columbia .....	15	400	808	2,099	78	1,795	6,189	4,376	x	x	488	2,691	5,409
Yukon and Northwest Territories	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals .....	137	10,035	22,081	52,028	4,293	71,692	167,477	93,622	28	111	11,714	62,955	96,064

TABLE 2. Principal Statistics classified by Size Group based on Value of Shipments of Goods of Own Manufacture, 1964 and 1965

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		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1964</b>													
Under \$10,000 .....	4	1	1	1	--	8	25	17	3	9	1	1	17
\$ 10,000 to \$ 24,999 .....	12	17	34	48	4	59	185	122	11	36	20	56	122
25,000 " 49,999 .....	5	21	42	71	8	64	182	112	2	7	25	84	121
50,000 " 99,999 .....	18	131	262	395	30	442	1,205	737	7	36	159	514	744
100,000 " 199,999 .....	21	315	644	1,160	71	1,052	3,160	2,029	--	--	375	1,480	2,087
200,000 " 499,999 .....	29	1,034	2,196	3,836	268	3,102	9,914	6,505	1	5	1,182	4,642	6,679
500,000 " 999,999 .....	16	974	2,167	4,013	235	4,012	11,380	7,051	--	--	1,145	5,028	7,212
1,000,000 " 4,999,999 .....	22	2,779	6,076	13,332	1,174	19,897	48,669	27,151	--	--	3,266	16,123	27,850
5,000,000 and over .....	7	2,960	6,461	15,137	957	29,805	61,810	31,052	--	--	3,447	17,732	31,025
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals .....</b>	<b>134</b>	<b>8,232</b>	<b>17,883</b>	<b>37,992</b>	<b>2,747</b>	<b>58,441</b>	<b>136,531</b>	<b>74,775</b>	<b>24</b>	<b>94</b>	<b>9,620</b>	<b>45,661</b>	<b>75,856</b>
<b>1965</b>													
Under \$10,000 .....	3	1	2	2	--	10	26	16	5	15	1	2	16
\$ 10,000 to \$ 24,999 .....	13	25	50	67	8	61	209	147	8	27	30	82	166
25,000 " 49,999 .....	3	8	16	22	4	37	114	70	8	24	8	22	70
50,000 " 99,999 .....	21	161	321	542	35	590	1,503	882	7	45	200	727	1,174
100,000 " 199,999 .....	15	241	498	921	73	713	2,229	1,436	--	--	281	1,139	1,452
200,000 " 499,999 .....	31	1,045	2,261	4,093	257	3,847	10,830	7,000	--	--	1,187	4,922	7,215
500,000 " 999,999 .....	17	1,030	2,321	4,261	350	4,373	12,273	7,608	--	--	1,196	5,266	7,865
1,000,000 " 4,999,999 .....	25	2,966	6,427	14,614	1,123	22,073	52,678	30,400	--	--	3,506	17,816	31,831
5,000,000 and over .....	9	4,558	10,184	27,505	2,441	39,988	87,616	46,065	--	--	5,305	32,979	46,276
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals .....</b>	<b>137</b>	<b>10,035</b>	<b>22,081</b>	<b>52,028</b>	<b>4,293</b>	<b>71,692</b>	<b>167,477</b>	<b>93,622</b>	<b>28</b>	<b>111</b>	<b>11,714</b>	<b>62,955</b>	<b>96,064</b>

TABLE 3. Principal Statistics classified by Size Group based on Manufacturing Value Added, 1964 and 1965

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		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1964</b>													
Under \$10,000 .....	11	8	15	20	2	40	119	75	11	34	9	22	75
\$ 10,000 to \$ 24,999 .....	7	18	36	62	6	48	148	95	4	14	21	71	102
25,000 " 49,999 .....	18	113	226	344	29	457	1,131	649	8	41	136	456	682
50,000 " 99,999 .....	14	165	327	593	36	508	1,559	1,032	--	--	204	780	1,031
100,000 " 199,999 .....	21	511	1,075	1,759	115	1,732	4,813	2,913	1	5	592	2,163	3,028
200,000 " 499,999 .....	30	1,368	3,006	5,393	368	5,470	15,350	9,459	--	--	1,589	6,663	9,719
500,000 " 999,999 .....	15	1,059	2,311	5,067	299	7,668	18,777	10,955	--	--	1,265	6,382	11,157
1,000,000 " 4,999,999 .....	18	4,990	10,887	24,754	1,891	42,518	94,634	49,597	--	--	5,804	29,124	50,063
5,000,000 and over .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals .....</b>	<b>134</b>	<b>8,232</b>	<b>17,883</b>	<b>37,992</b>	<b>2,747</b>	<b>58,441</b>	<b>136,531</b>	<b>74,775</b>	<b>24</b>	<b>94</b>	<b>9,620</b>	<b>45,661</b>	<b>75,856</b>
<b>1965</b>													
Under \$10,000 .....	9	23	47	71	5	97	146	43	7	21	40	145	286
\$ 10,000 to \$ 24,999 .....	12	34	68	100	10	112	310	194	13	59	36	106	214
25,000 " 49,999 .....	12	68	136	241	21	295	803	490	6	21	82	318	539
50,000 " 99,999 .....	16	191	390	686	67	618	1,797	1,110	2	9	227	863	1,109
100,000 " 199,999 .....	18	425	848	1,522	86	1,548	4,078	2,437	--	--	480	1,809	2,466
200,000 " 499,999 .....	32	1,482	3,315	5,839	463	6,224	16,825	10,481	--	--	1,707	7,229	10,937
500,000 " 999,999 .....	15	1,048	2,307	5,001	321	7,089	17,762	10,567	--	--	1,215	6,022	10,561
1,000,000 " 4,999,999 .....	20	4,409	9,493	22,947	1,820	35,517	80,833	44,289	--	--	5,124	27,270	45,635
5,000,000 and over .....	3	2,355	5,478	15,619	1,499	20,193	44,922	24,010	--	--	2,803	19,193	24,868
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals .....</b>	<b>137</b>	<b>10,035</b>	<b>22,081</b>	<b>52,028</b>	<b>4,293</b>	<b>71,692</b>	<b>167,477</b>	<b>93,622</b>	<b>28</b>	<b>111</b>	<b>11,714</b>	<b>62,955</b>	<b>96,064</b>



TABLE 4. Principal Statistics classified by Size Group based on Total Value Added, 1964 and 1965

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		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1964													
Under \$10,000	11	8	15	20	2	40	119	75	11	34	9	22	75
\$ 10,000 to \$ 24,999	7	18	36	62	6	48	148	95	4	14	21	71	102
25,000 " 49,999	16	92	184	281	25	376	952	552	8	41	109	360	554
50,000 " 99,999	16	186	369	656	40	589	1,738	1,129	—	—	231	875	1,159
100,000 " 199,999	20	471	1,000	1,620	107	1,622	4,475	2,740	1	5	542	1,989	2,818
200,000 " 499,999	30	1,333	2,924	5,263	342	5,345	15,084	9,303	—	—	1,538	6,472	9,421
500,000 " 999,999	14	961	2,112	4,347	309	7,328	16,878	9,346	—	—	1,143	5,453	9,528
1,000,000 " 4,999,999	20	5,163	11,242	25,743	1,915	43,092	97,136	51,535	—	—	6,027	30,418	52,201
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	—	—	—
Totals	134	8,232	17,883	37,992	2,747	58,441	136,531	74,775	24	94	9,620	45,661	75,856
1965													
Under \$10,000	8	5	9	12	4	32	88	52	7	21	8	22	52
\$ 10,000 to \$ 24,999	11	28	56	84	9	108	294	182	12	57	30	90	182
25,000 " 49,999	10	49	98	174	14	240	608	357	7	24	55	200	377
50,000 " 99,999	19	216	440	768	75	677	2,008	1,256	2	9	260	996	1,303
100,000 " 199,999	18	425	848	1,522	86	1,548	4,076	2,437	—	—	480	1,809	2,466
200,000 " 499,999	32	1,435	3,211	5,631	447	6,038	16,128	9,984	—	—	1,663	6,935	10,657
500,000 " 999,999	16	1,113	2,448	5,269	339	7,340	18,517	11,055	—	—	1,291	6,440	11,065
1,000,000 " 4,999,999	20	4,409	9,493	22,947	1,820	35,517	80,833	44,289	—	—	5,124	27,270	45,695
5,000,000 and over	3	2,355	5,478	15,619	1,499	20,193	44,922	24,010	—	—	2,803	19,193	24,268
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	—	—	—
Totals	137	10,035	22,081	52,028	4,293	71,692	167,477	93,622	28	111	11,714	62,955	96,064

TABLE 3. Principal Statistics classified by Size Group based on Total Employed, 1964 and 1965

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		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1964													
Under 5 employed	21	30	59	92	12	176	453	289	16	58	36	112	269
5 - 14 employed	24	182	364	665	51	761	2,040	1,251	6	27	229	899	1,283
15 - 49	39	1,008	2,110	3,672	243	3,908	11,036	6,959	2	9	1,168	4,567	7,046
50 - 99	32	1,936	4,314	8,613	628	13,633	33,184	18,057	—	—	2,267	10,596	18,177
100 - 199	6	715	1,551	3,423	270	5,697	14,878	8,859	—	—	905	4,413	9,579
200 - 499	8	2,161	4,606	10,324	922	16,300	35,009	18,127	—	—	2,454	11,991	18,307
500 employed and over	4	2,200	4,879	11,204	621	17,967	39,931	21,254	—	—	2,661	13,082	21,197
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	—	—	—
Totals	134	8,232	17,883	37,992	2,747	58,441	136,531	74,775	24	94	9,620	45,661	75,856
1965													
Under 5 employed	18	24	47	72	12	137	363	219	17	67	29	87	219
5 - 14 employed	23	160	318	593	44	698	1,870	1,134	10	39	193	769	1,194
15 - 49	42	1,076	2,270	4,212	314	5,603	13,657	8,003	1	4	1,238	5,163	8,264
50 - 99	30	1,837	4,097	8,203	568	10,767	28,056	16,744	—	—	2,152	10,204	17,228
100 - 199	10	1,089	2,394	5,376	387	7,918	18,542	11,033	—	—	1,310	6,653	12,186
200 - 499	9	2,472	5,292	12,668	1,078	21,612	46,181	23,805	—	—	2,823	14,657	24,083
500 employed and over	5	3,377	7,663	20,910	1,890	24,956	58,809	32,684	—	—	3,969	25,421	32,890
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	—	—	—
Totals	137	10,035	22,081	52,028	4,293	71,692	167,477	93,622	28	111	11,714	62,955	96,064

TABLE 6. Principal Statistics classified by Type of Organization, 1964 and 1965

Type of organization	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		Employees		Value added
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1964</b>													
Individual ownerships .....	17	89	178	259	16	266	716	437	17	68	95	275	444
Partnerships .....	4	3	6	9	2	35	87	49	7	26	3	9	49
Incorporated companies .....	113	8,140	17,699	37,724	2,729	58,139	135,729	74,289	—	—	9,522	45,377	75,364
Co-operatives .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	—	—	—
<b>Totals .....</b>	<b>134</b>	<b>8,232</b>	<b>17,883</b>	<b>37,992</b>	<b>2,747</b>	<b>58,441</b>	<b>136,531</b>	<b>74,775</b>	<b>24</b>	<b>94</b>	<b>9,620</b>	<b>45,661</b>	<b>75,856</b>
<b>1965</b>													
Individual ownerships .....	14	62	124	174	15	196	519	314	16	62	63	177	333
Partnerships .....	6	6	12	18	4	54	147	89	12	48	6	18	89
Incorporated companies .....	117	9,967	21,945	51,836	4,274	71,442	166,811	93,219	—	—	11,645	62,759	95,642
Co-operatives .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	—	—	—
<b>Totals .....</b>	<b>147</b>	<b>10,035</b>	<b>22,081</b>	<b>52,028</b>	<b>4,293</b>	<b>71,692</b>	<b>167,477</b>	<b>93,622</b>	<b>28</b>	<b>111</b>	<b>11,714</b>	<b>62,955</b>	<b>96,064</b>

TABLE 7. Calculation of Output, Input and Value Added, 1964 and 1965

	Manufacturing activity		Non-manufacturing activities		Total activity	
	1964	1965	1964	1965	1964	1965
\$'000						
<b>Output</b>						
1. Shipments and other revenue .....	136,531	167,477	9,408	14,499	145,939	181,976
Inventories—Goods of own manufacture:						
Add closing—Goods in process .....	2,439	3,959	...	...	2,439	3,959
Finished goods .....	7,877	9,775	...	...	7,877	9,775
Deduct opening—Goods in process .....	2,336	3,714	...	...	2,336	3,714
Finished goods .....	8,548	7,890	...	...	8,548	7,890
2. Net inventory change .....	(568)	2,130	...	...	(568)	2,130
3. Gross output (1 + 2) .....	135,963	169,607	9,408	14,499	145,371	184,106
<b>Input</b>						
4. Purchases of goods not of own manufacture .....	...	...	7,802	11,800	7,802	11,800
Inventories—Goods not of own manufacture:						
Add opening .....	...	...	1,976	1,932	1,976	1,932
Deduct closing .....	...	...	1,792	2,266	1,792	2,266
5. Cost of goods sold (not of own manufacture) .....	...	...	7,986	11,466	7,966	11,466
6. Materials, supplies, etc. ....	58,441	71,692	340	590	58,781	72,281
7. Fuel and electricity .....	2,747	4,293	...	...	2,747	4,293
8. Gross input (5 + 6 + 7) .....	61,188	75,985	8,326	12,056	69,514	88,041
Value added (3 - 8) .....	74,775	93,622	1,081	2,443	75,856	96,064



TABLE 8. Employment and Payroll, 1964 and 1965

Territory and province	Employees										Salaries and wages				
	Production and related workers				Administrative and office		Sales and distribution		Total		Production and related workers		Administrative and office	Sales and distribution	Total
	Manufacturing		Other												
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufacturing	Other			
	number										\$'000				
1964															
Newfoundland .....	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
Prince Edward Island .....	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
Nova Scotia .....	72	1	—	—	7	5	8	—	87	6	248	—	62	38	347
New Brunswick .....	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
Quebec .....	1,364	8	—	—	231	56	11	—	1,606	64	5,781	—	1,488	42	7,271
Ontario .....	5,795	103	3	1	592	202	52	3	5,795	103	27,888	17	4,496	344	32,745
Manitoba .....	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
Saskatchewan .....	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
Alberta .....	199	—	—	—	31	7	3	—	233	7	919	—	282	17	1,217
British Columbia .....	350	—	—	—	47	20	13	—	410	20	1,801	—	368	108	2,277
Yukon and Northwest Territories .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals .....	8,120	112	3	1	964	312	100	8	9,187	433	37,992	17	7,019	633	45,661
1965															
Newfoundland .....	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
Prince Edward Island .....	x	—	—	—	—	—	x	x	x	x	x	—	—	x	x
Nova Scotia .....	76	1	—	—	8	5	7	—	91	6	277	—	67	35	379
New Brunswick .....	x	—	—	—	x	x	—	—	x	x	x	—	x	—	x
Quebec .....	1,494	8	1	—	245	55	20	—	1,760	63	6,416	6	1,584	92	8,098
Ontario .....	7,356	85	4	—	802	229	54	3	8,216	317	40,553	18	7,237	374	48,141
Manitoba .....	270	—	—	—	33	13	14	4	317	17	1,269	—	271	92	1,632
Saskatchewan .....	x	—	—	—	x	x	x	—	x	x	x	—	x	x	x
Alberta .....	217	—	—	—	33	8	5	—	255	8	973	—	318	25	1,315
British Columbia .....	400	—	—	—	62	23	3	—	465	23	2,099	—	573	19	2,691
Yukon and Northwest Territories .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals .....	9,941	94	5	—	1,219	343	104	8	11,269	445	52,028	24	10,260	643	62,955

TABLE 9. Production and Related Workers, — Manufacturing Activity, 1964 and 1965

Month	1964		1965	
	Male	Female	Male	Female
	number			
<b>Establishments reporting monthly detail (large establishments only):</b>				
January .....	7,497	113	9,419	106
February .....	7,490	110	8,426	102
March .....	7,504	109	9,632	102
April .....	7,495	114	9,377	100
May .....	7,524	116	9,551	102
June .....	7,616	111	9,794	103
July .....	7,454	113	8,537	58
August .....	7,372	113	8,524	61
September .....	7,544	104	9,095	61
October .....	7,726	101	10,163	103
November .....	8,071	103	10,298	107
December .....	8,184	107	10,435	108
<b>Averages</b> .....	<b>7,793</b>	<b>111</b>	<b>9,444</b>	<b>92</b>
<b>Establishments reporting annual averages (small establishments only) .....</b>	<b>327</b>	<b>1</b>	<b>497</b>	<b>2</b>
<b>Average for all establishments .....</b>	<b>8,120</b>	<b>112</b>	<b>9,941</b>	<b>94</b>

TABLE 10. Inventories, 1965

Province	Manufacturing				Non-manufacturing	Total inventories
	Materials, supplies, etc.	Goods in process	Finished goods of own manufacture	Total	Products or materials purchased for resale	
book value \$'000						
Opening:						
Newfoundland .....	x	—	x	x	x	x
Prince Edward Island .....	x	—	x	x	x	x
Nova Scotia .....	55	13	97	165	70	235
New Brunswick .....	x	—	x	x	—	x
Quebec .....	1,381	28	1,762	3,170	330	3,500
Ontario .....	4,237	3,632	4,982	12,852	344	13,196
Manitoba .....	247	7	294	549	297	845
Saskatchewan .....	x	—	x	x	x	x
Alberta .....	304	1	337	642	13	655
British Columbia .....	113	33	336	483	341	824
Yukon and Northwest Territories .....	—	—	—	—	—	—
Totals .....	6,519	3,714	7,890	18,124	1,932	20,056
Closing:						
Newfoundland .....	x	—	x	x	x	x
Prince Edward Island .....	x	—	x	x	x	x
Nova Scotia .....	66	13	102	181	61	242
New Brunswick .....	x	—	x	x	—	x
Quebec .....	1,428	680	2,678	4,786	344	5,130
Ontario .....	6,590	3,207	5,545	15,342	374	15,716
Manitoba .....	173	13	550	736	408	1,144
Saskatchewan .....	x	—	x	x	x	x
Alberta .....	408	1	427	835	12	847
British Columbia .....	129	45	385	560	508	1,068
Yukon and Northwest Territories .....	—	—	—	—	—	—
Totals .....	8,975	3,959	9,775	22,709	2,266	24,975

TABLE 11. Purchased Fuel and Electricity Used, 1964 and 1965

Description	1964		1965	
	Quantity	Cost	Quantity	Cost
		\$'000		\$'000
1. Large establishments reporting commodity detail:				
Bituminous coal:				
(a) From Canadian mines .....	ton	505	604	10
(b) Imported .....	"	28,113	30,874	481
Sub-bituminous coal (from Alberta mines only) .....	"	10	—	—
Anthracite coal .....	"	76	85	1
Lignite coal .....	"	—	537	4
Coke .....	"	2,274	1,963	63
Gasoline (including gasoline used in cars and trucks) .....	Imp. gal.	390,655	491,331	187
Fuel oil including kerosene or coal oil .....	"	3,154,702	3,551,489	455
Wood .....	cord	1,414	642	9
Gas:				
(a) Liquefied petroleum gases .....	Imp. gal.	110,699	152,485	34
(b) Other manufactured gas .....	M cu. ft.	—	11,200	3
(c) Natural gas .....	"	614,045	1,191,956	814
Other fuel .....	...	2	...	11
Electricity purchased .....	kwh.	103,554,339	150,632,076	1,817
Steam purchased .....	...	20	...	285
2. Small establishments not reporting commodity detail:				
Estimate for fuel and electricity .....	...	125	...	119
3. All establishments:				
<b>Total fuel and electricity used .....</b>	...	<b>2,747</b>	...	<b>4,293</b>

TABLE 12. Materials and Supplies - Manufacturing Activity, 1964 and 1965

Description		1964		1965	
		Quantity	Cost	Quantity	Cost
			\$'000		\$'000
1. Materials used:					
Castings (rough and semi-finished received from foundry):					
Iron (gray and malleable) .....	ton	1,151	357	1,018	338
Steel .....	"	2,587	804	3,263	1,058
Pig iron, all grades .....	"	184,062	11,009	221,711	12,846
Steel (except alloy steel):					
Bars .....	"	2,842	467	3,335	567
Plates (3/16 in. and thicker) .....	"	8,217	1,611	5,933	1,130
Sheets (under 3/16 in.):					
Plain .....	"	621	108	698	136
Galvanized .....	"	275	59	326	88
Tinplate .....	"	9	2	14	3
Strip .....	"	139	23	57	9
Structural shapes, unfabricated (channels, angles, etc.) .....	"	6,293	1,264	6,999	1,381
Wire .....	"	149	30	315	68
Alloy steel in all forms:					
Alloy steel (other than stainless and tool steel) .....	"	...	46	...	44
Stainless .....	"	...	118	...	762
Tool steel .....	"	...	24	...	13
Scrap iron and steel:					
Purchased .....	ton	376,612	13,710	440,834	17,995
Own make .....	"	9,782	...	-	-
Pipe and fittings, iron and steel .....	"	..	133	..	97
Other iron and steel .....	"	..	509	..	748
Precious alloys .....	"	..	1,629	..	2,553
Non-ferrous metals in all forms:					
Aluminum:					
Castings .....	pound	39,907	38	51,092	41
Sheet .....	"	14,554	10	35,487	20
Other forms .....	"	..	131	..	160
Brass and bronze .....	pound	2,382,857	824	1,908,119	791
Copper .....	"	..	112	..	200
Lead .....	pound	47,558	7	61,212	19
Nickel .....	"	1,535,789	1,295	1,541,948	1,315
Tin .....	"	2,616	5	2,094	4
Zinc .....	"	853,161	112	782,259	•109
Babbitt metal and solders .....	"	6,071	4	7,272	6
Other non-ferrous metal .....	"	...	201	...	383
Other materials and supplies:					
Paints and varnishes .....	"	..	216	..	263
Foundry coke (used in cupola) .....	ton	97,832	3,718	122,998	4,802
Foundry sands (including core and moulding sands) .....	"	164,589	1,280	274,353	2,406
Plumbago and graphite .....	pound	1,045,821	101	2,049,009	169
Lumber .....	M ft. b.m.	1,468	173	1,535	181
Firebrick and cupola blocks .....	"	..	403	..	403
Fireclay .....	ton	9,153	220	9,356	209
Core oil .....	imp. gal.	143,722	189	377,631	407
All other materials and components used <sup>1</sup> .....	"	...	9,634	...	9,595
2. Containers and other packaging materials and supplies used .....	"	...	321	...	446
3. Operating, maintenance and repair supplies used (excluding fuel) .....	"	...	6,392	...	8,690
4. Amount paid out to others for work done on materials owned by establishments ....	"	...	1,122	...	1,308
Totals .....	"	...	58,441	...	71,742

<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 \$1,779,167 in 1964 and \$1,756,158 in 1965.

TABLE 13. Shipments of Goods of Own Manufacture, 1964 and 1965

Description	1964		1965	
	Quantity	Value	Quantity	Value
	tons	\$'000	tons	\$'000
1. Products:				
Commercial castings (sold as such):				
Gray iron .....	165,216	42,927	196,725	54,124
Malleable iron .....	24,891	10,445	30,658	12,557
Non-ferrous castings:				
Aluminum .....	244	374	361	582
Copper alloy (brass, bronze, etc.) .....	419	658	..	916
Cast iron products (including grinding balls, ingot moulds, hydrants, etc. but excluding cast iron pipe and fittings) .....	..	17,794	..	20,281
Cast iron pipe and fittings .....	198,094	33,757	207,841	36,879
Malleable iron pipe fittings, all sizes .....	4,855	3,960	5,904	5,196
Machinery and parts .....	..	10,513	..	10,784
Plumbers brass fittings .....	..	506	..	1
Valves (iron, steel, brass and bronze) .....	..	1,526	..	1,745
All other products .....	...	11,884	...	24,298
2. Amount received in payment for work done on materials and products owned by others .....	...	898	...	514
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above .....	...	(120)	...	(303)
Net adjustment for establishments receiving progress payments .....	...	(1,408)	...	(95)
<b>Total adjusted value of shipments and work done .....</b>	<b>...</b>	<b>136,531</b>	<b>...</b>	<b>167,477</b>

<sup>1</sup> Included in "All other products".

TABLE 14. Shipments of Selected Goods of Own Manufacture - All Industries, 1964 and 1965

(Includes shipments from other industries which manufacture, as a secondary activity, the commodities listed)

Cast Iron Pipe and Fittings

Description	1964		1965	
	Quantity	Value	Quantity	Value
	tons	\$'000	tons	\$'000
Cast iron soil pipe:				
Under 6" inside diameter .....	34,602	5,246	43,197	6,928
6" inside diameter and over .....	12,207	2,153	12,611	2,101
Cast iron soil pipe fittings, all sizes .....	23,178	5,336	20,689	5,788
Cast iron water pipe and fittings, all sizes .....	146,067	21,774	145,808	22,609
Cast iron pipe fittings, other .....	7,987	3,537	8,658	4,082
Malleable iron pipe fittings, all sizes .....	4,855	3,960	5,904	5,196
<b>Totals .....</b>	<b>228,896</b>	<b>42,006</b>	<b>236,867</b>	<b>46,684</b>

TABLE 15. Total Production of Iron Castings and Materials Charged to Cupolas, 1961 - 65

Description		1961	1962	1963	1964	1965
Pig Iron used <sup>1</sup> .....	net ton	249,000	279,000	321,000	384,000	410,000
Scrap iron and steel used: <sup>2</sup>	\$'000	15,788	16,855	20,618	24,015	23,949
Purchased .....	net ton	517,000	512,000	608,000	701,000	795,000
Own make .....	\$'000	19,406	19,087	22,530 <sup>3</sup>	25,161	31,950
Coke used in cupolas or melting furnaces (purchased only) <sup>3</sup> .....	net ton	116,000	139,000	215,000	223,000	253,000
Iron castings made (whether for sale or own use):	\$'000	129,000	127,000	152,000	172,000	190,000
Gray and white iron castings <sup>4</sup> (except pipe and fittings) .....	net ton	4,494	4,527	5,442	6,364	7,332
Malleable iron (except fittings) .....	net ton	475,000	487,000	555,000	637,000	735,000
Cast iron pipe and fittings <sup>5</sup> .....	"	28,000	32,000	38,000	45,000	55,000
Malleable iron pipe fittings <sup>5</sup> .....	"	188,000	207,000	193,000	221,000	235,000
Ductile iron castings <sup>4</sup> .....	"	5,000	6,000	7,000	6,000	8,000
<b>Total castings .....</b>	"	..	..	..	..	33,000
<b>Total castings .....</b>	"	<b>696,000</b>	<b>732,000</b>	<b>793,000</b>	<b>909,000</b>	<b>1,065,000</b>

<sup>1</sup> As a result of changes in classification brought about by the implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept, totals for these materials, since 1960, include usage reported by some steel foundries. Consequently, totals since 1960 are not exactly comparable with previous years.

<sup>2</sup> Commencing with 1961 no value assigned to "scrap iron and steel - own make" as was done in prior years, hence values are no longer available.

<sup>3</sup> Details of "own make" previously included on an estimated basis have been eliminated for the years 1958 to 1961.

<sup>4</sup> Compiled from data submitted by the 200 iron foundries which report monthly and which, it is estimated, account for about 95 per cent of the total production. These figures have been expanded to 100 per cent.

<sup>5</sup> Factory shipments.

List of Establishments classified to this Industry, 1965

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

Name	Location
<b>Newfoundland:</b>	
United Nail and Foundry Co. Ltd. ....	St. John's
<b>Prince Edward Island:</b>	
Parker Foundry .....	Georgetown
<b>Nova Scotia:</b>	
Amherst Foundry .....	Amherst
Dartmouth Iron Foundry .....	Dartmouth
Hills and Sons Ltd. ....	Halifax
New Glasgow Foundry .....	New Glasgow
<b>New Brunswick:</b>	
Courtenay Iron and Brass Foundry Ltd. ....	Saint John
McLennan Engineering Works Ltd. ....	Campbellton
<b>Quebec:</b>	
Bergeron, Lucien A. ....	Ste-Julie Station
Canada Iron Foundries Limited .....	Trois-Rivières
Fonderie Beloeil Ltée .....	Beloeil
Fonderie Binette Inc. ....	Laurierville
Fonderie Canadienne Ents. ....	St-Jean
Fonderie Després Emr. ....	Montmagny Station
Fonderie Fortin Emr. ....	Waterloo
Fonderie Gosselin Inc. ....	La Pêrade
Fonderie Magog Ltée (Ltd.) .....	Magog
Fonderie Napierville Ltée .....	Napierville
Fonderie Savoie .....	Ville-Ste-Marie
Fonderie St-Hyacinthe Foundry Ltée .....	St-Hyacinthe
Fonderie St-Louis Engg. ....	St-Louis de Bonsecours
Fonderie St-Placide (Jean Charles Lefebvre) .....	St-Placide
Fonderie St-Romuald .....	St-Romuald
General Foundry Co. ....	Windsor
Grand'Mère Foundry Ltd. ....	Grand'Mère
H.O.P. Inc. ....	Quebec
La Compagnie Dussault et Lamoureux .....	St. Hyacinthe
La Fonderie Bégin et Gingras Engg. ....	Quebec
La Fonderie de Lauzon Ltée .....	Lauzon
La Fonderie Laperle Ltée .....	St-Ours
La Fonderie Paquette Inc. ....	St-Jean
La Fonderie Ste-Croix Ltée .....	Ste-Croix
La Fonderie de Sully .....	Sully
La Fonderie de Thetford .....	Thetford Mines
Laroche, Zéphérin, et Frères Ltée .....	Pont-Rouge
Légaré Foundry (1961) Ltd. ....	Sherbrooke
Mace Foundry Co. ....	1450 Gladstone Ave., Côte St-Paul, Montreal
Montreal Foundry Limited .....	1249 Conde St., Montreal
Monsarrat Machinery and Foundries Ltd. ....	Rivière-du-Loup
Paul Bros. Foundry Limited .....	Laprairie
Pont Viau Foundry Ltd. ....	Pont-Viau
Quebec Iron Foundries Ltd. ....	Noranda
Quebec Iron Foundries Ltd. ....	Mont-Joli
St. Jérôme Industries Ltd. ....	St-Jérôme
Shawinigan Foundries Limited .....	Shawinigan
Union Foundry Limited, The .....	Granby
Viau, M.L., et Fils Ltée .....	St-Jérôme
<b>Ontario:</b>	
Alloy Foundry Co. Ltd. ....	Merrickville
Auto Specialties Mfg. Co. (Canada) Ltd. ....	Windsor
Bell City Foundry (Brantford) Ltd. ....	Brantford
Benn Iron Foundry Ltd. ....	Wallaceburg
Bibby Foundry Ltd. ....	Galt
Bowmanville Foundry Company Limited .....	Bowmanville
Brown Foundry Ltd. ....	Morrisburg
Canada Iron Foundries Ltd. (Foundry Div.) .....	171 Eastern Ave., Toronto
Canada Iron Foundries Ltd. (Foundry Div.) .....	Hamilton
Canada Iron Foundries Ltd. (Foundry Div.) .....	Hamilton
Canada Iron Foundries Ltd. (Pipe Div.) .....	324 Cherry Street, Toronto
Cobalt Foundry Limited .....	Cobalt
Cornwall Brass and Iron Foundries Ltd. ....	Cornwall
Crawford Machine and Foundry Limited .....	Woodstock
Crowe Foundry Limited .....	Hespeler
Cunningham Foundry and Machine Co. Ltd. ....	St. Catharines



List of Establishments classified to this Industry, 1965 - Concluded

Name	Location
<b>Ontario - Concluded:</b>	
Date Industries Ltd.	Avr
Designed Precision Castings Ltd.	Brampton
Domestic Foundry	Windsor
Eureka Foundry and Manufacturing Co. Limited (Div. of Kelsey Wheel Co. Ltd.)	Woodstock
Fergusson, J.R., Company Ltd.	Dundas
Fittings Limited	Oshawa
Ford Motor Co. of Canada Ltd.	Windsor
Galt Malleable Iron Limited	Galt
Gies, Philip, Foundry Ltd.	Kitchener
Grinnell Company of Canada, Limited	2440 Dundas St. W., Toronto
Hamilton Foundry Co. Ltd.	Hamilton
Hastings and Sons Foundry Ltd.	Stratford
Holmes Foundry Company Limited	Sarnia
Hopper Foundry Limited	Forest
Imbleau, H., and Son Ltd.	Renfrew
International Malleable Iron Co. Ltd.	Guelph
Keleher Foundry Co.	Guelph
Kent Foundry Ltd.	Chatham
Lawson McMullen Victoria Ltd.	Ottawa
Lincoln Foundry Ltd.	St. Catharines
Link-Belt Limited	Elmira
McCoy Archie, Hamilton Ltd.	Hamilton
McLean Bessemer Industries Ltd.	Brantford
Marshall, A. Foundry	Windsor
Massey-Ferguson Industries Ltd.	Brantford
Niagara Foundry Company Ltd., The	Niagara Falls
Ontario Malleable Iron Co. Ltd.	Oshawa
Orangeville Foundry	Orangeville
RTA Industries Ltd. (Lake Foundry Div.)	Grimsby
Shantz Foundry Ltd.	Preston
Snowdon's General Casting Co. Ltd.	Brantford
Standard Foundry and Supply Co. Ltd.	Windsor
Stanton Pipes Ltd.	Hamilton
Stittsville Foundry	Stittsville
Tomlinson Industries Ltd.	352 Front St. E., Toronto
Toronto Foundry Ltd.	1884 Davenport Rd., Toronto
Wabi Iron Works Limited	New Liskeard
Wabi Iron Works Ltd.	Sudbury
Walker Metal Products Limited	Windsor
Walkerton Foundry	Walkerton
Welland Iron and Brass Ltd.	Welland
Wells Foundry Limited	Londra
West Flamboro Foundry	Greenville
Woodside Machinist and Foundry Co. Ltd.	Port Arthur
Wotherspoon, J.A., and Son Ltd.	Oakville
<b>Manitoba:</b>	
Anthes-Imperial Limited	Winnipeg
Bell Foundry Co. Ltd.	St. James
Osborne Foundries Ltd.	Winnipeg
Prairie Foundry Ltd.	Winnipeg
Riverside Iron Works Ltd.	Winnipeg
Thor Foundry Ltd.	St. Boniface
<b>Saskatchewan:</b>	
Norwood Foundry (Sask.) Ltd.	Regina
Prince Albert Foundry	Prince Albert
<b>Alberta:</b>	
Anthes-Imperial Ltd.	Edmonton
Anthes-Imperial Ltd.	Calgary
General Foundry Works Ltd.	Edmonton
National Castings Ltd.	Fort McLeod
Norwood Foundry Co. Ltd.	Edmonton
Sovereign Castings Ltd.	Calgary
<b>British Columbia:</b>	
Advance Foundry Ltd.	236 Clark Drive, Vancouver
Albani Foundry Ltd.	Port Alberni
Associated Foundry Ltd.	4080 Nanaimo St., Vancouver
Cranbrook Foundry Company Limited	Cranbrook
Dobney Foundry Co. Ltd.	New Westminster
Industrial Piping and Mechanical Contractors Ltd.	Burnaby
Interior Iron & Steel Foundries Ltd.	Nelson
McLean and Powell Iron Works Ltd.	398 West 2nd Ave., Vancouver
Mainland Foundry and Engineering Ltd.	1707 Pandora St., Vancouver
Milbourne Foundry	Lulu Island
Nye's Foundry Ltd.	503 Powell St., Vancouver
Peach City Foundry	Penticton
Storie Industries Ltd.	New Westminster
Terminal City Iron Works Ltd.	1909 Franklin St., Vancouver
Victoria Foundries Ltd.	Victoria



# 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 55 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 176 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 135 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 reports reflect the complete implementation of these changes and enable comparisons to be made back to and including 1961. 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 activities**

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. For those establishments reporting on the "long" form, 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. In the case of those establishments reporting on the "short" form, respondents are requested to report average annual figures. 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.). Data on man-hours are not collected from establishments reporting on the short form. Man-hours for these establishments are estimated on the basis of ratios derived from the 1958 census. During this census all establishments reported on the long form. 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 are 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 manufacturing materials, supplies, etc. and fuel and electricity consumed from the (value of shipments of goods of own manufacture 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 pur-

chased for re-sale) and the cost of non-manufacturing 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 output or 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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