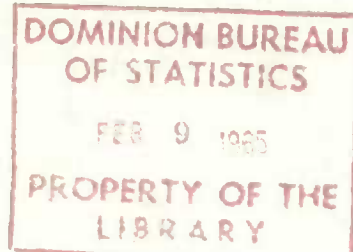


CATALOGUE No.

41-207

ANNUAL



FABRICATED STRUCTURAL METAL INDUSTRY 1962

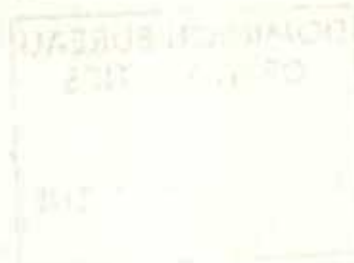
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SYMBOLS

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

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.
- amount too small to be expressed.
- preliminary figures.
- revised figures.

FABRICATED STRUCTURAL METAL INDUSTRY

1962

Data presented in this report under the heading of Fabricated Structural Metal Industry reflect implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept which are being used by the Dominion Bureau of Statistics in its compilation of industry statistics—see items "Standard Industrial Classification" and "Establishment" in the Explanatory Notes section of this report. For statistical purposes the industry titled Fabricated Structural Metal Industry in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in fabrication of heavy steel parts and similar parts of other metals and alloys for structural purposes. Products of this industry include fabricated shapes for bridges, buildings, large tanks and similar structures. Establishments in this industry may erect buildings, bridges and large tanks as well as fabricate the metal parts but they are primarily engaged in fabrication. Establishments primarily engaged in the erection of buildings, bridges and large tanks from purchased metal parts are included in Industry No. 421—Special-Trade Contractors.

The introduction of the final stage of the establishment concept in the Annual Census of Manufactures has resulted in certain changes and necessitated some adjustments to the statistics. Refer to the Explanatory Notes section of this report for a more detailed explanation. For the most part the changes in the manufacturing activity of the industry under review resulting from the implementation of the final stage of the establishment concept, were negligible.

TABLE 1. Principal Statistics — Manufacturing Activity,¹ 1957-61
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Year	Estab- lish- ments	Employees						Cost of fuel and elec- tricity ⁴	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴
		Production and related workers ³		Administrative and office employees ³		Total ⁴					
		Number	Wages	Number	Salaries	Number	Salaries and wages				
	No.		\$'000		\$'000			\$'000			
1957	63	13,470	57,052	3,975	20,586	17,445	77,638	2,213	133,887	267,795	..
1958	68	11,669	49,788	3,945	21,738	15,614	71,525	2,016	112,547	234,227	119,642
1959	68	11,701	51,836	4,045	22,229	15,746	74,065	2,157	113,415	229,802	112,687
1960	73	11,192	50,245	4,003	22,787	15,195	73,032	2,191	110,144	218,684	106,249
1961	78	10,124	47,264	3,665	21,145	13,789	68,410	2,017	112,015	210,061	96,029

See footnotes following Table 3 A.

TABLE 1 A. Principal Statistics — Manufacturing Activity and Total Activity,¹ 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Year and province	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ³			Cost of fuel and elec- tricity ⁴	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁵		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1961													
Nova Scotia	5	444	876	1,801	99	5,779	9,868	4,046	"	"	840	2,703	4,211
New Brunswick													
Quebec	19	3,237	5,696	14,415	573	34,764	62,621	27,255	—	—	4,529	23,678	27,289
Ontario	34	4,571	9,965	22,452	950	49,526	97,240	46,777	—	—	6,146	31,065	51,607
Manitoba	5	497	961	2,288	100	3,920	8,149	4,055	"	"	766	3,740	4,037
Saskatchewan	3	140	294	581	31	2,233	3,607	1,349	—	—	233	993	1,467
Alberta	7	637	1,134	2,787	91	8,252	14,053	5,710	—	—	982	4,370	6,452
British Columbia	5	598	1,146	2,941	172	7,541	13,800	6,116	—	—	935	4,738	6,719
Canada	78	10,124	20,073	47,264	2,017	112,015	209,338	95,307	6	16	14,231	71,287	101,762
1962													
Nova Scotia	4	400	684	1,632	126	4,775	9,445	4,468	"	"	540	2,297	4,840
New Brunswick													
Quebec	18	3,276	6,987	15,787	614	38,061	72,834	34,188	—	—	4,474	25,004	34,431
Ontario	36	4,587	9,681	23,082	965	59,260	111,524	51,294	"	"	6,184	31,577	60,980
Manitoba	5	602	1,197	3,047	116	3,820	13,517	9,561	—	—	854	4,506	9,560
Saskatchewan	4	159	326	646	36	4,667	6,449	1,758	—	—	267	1,153	1,861
Alberta	9	670	1,295	3,035	111	10,210	19,122	8,800	—	—	1,055	5,024	9,912
British Columbia	8	873	1,677	4,555	193	11,535	22,112	10,352	—	—	1,228	6,517	10,444
Canada	82	10,567	21,826	51,783	2,181	132,329	255,003	120,421	4	35	14,602	76,078	132,027

See Table 2 and footnotes following Table 3 A.

TABLE 1B. Principal Statistics classified by Size Groups based on Shipments of Goods of Own Manufacture, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Size group	Estab- lish- ments	Manufacturing activity							Total activity					
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸	
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages		
1961	No.		'000			\$'000				\$'000			\$'000	
Under \$10,000	—	—	—	—	—	—	—	—	—	—	—	—	—	
\$ 10,000 to \$ 24,999	—	—	—	—	—	—	—	—	—	—	—	—	—	
25,000 " 49,999	—	—	—	—	—	—	—	—	—	—	—	—	—	
50,000 " 99,999	5	54	110	218	12	401	687	262	3	9	78	302	258	
100,000 " 199,999		14	297	578	1,135	62	2,024	3,941	1,879	—	—	381	1,467	2,030
200,000 " 499,999		11	343	750	1,375	80	4,760	8,106	3,266	—	—	536	2,214	3,420
500,000 " 999,999		36	4,210	8,232	18,342	882	49,202	87,974	37,929	3	8	5,893	26,805	41,492
1,000,000 " 4,999,999	12	5,220	10,404	21,196	981	55,627	108,630	51,972	—	—	7,187	39,088	54,616	
5,000,000 and over .....	...	...	...	...	...	...	...	...	...	...	156	1,410	(55)
Head offices, sales offices and auxiliary units	78	10,124	20,073	47,264	2,017	112,015	209,338	95,307	6	18	14,231	71,287	101,762	
Totals														
1962														
Under \$10,000	—	—	—	—	—	—	—	—	—	—	—	—	—	
\$ 10,000 to \$ 24,999	—	—	—	—	—	—	—	—	—	—	—	—	—	
25,000 " 49,999	4	20	36	95	5	136	272	131	2	8	25	111	147	
50,000 " 99,999		3	28	47	93	7	288	471	176	—	—	38	128	174
100,000 " 199,999		12	239	464	932	42	2,231	3,786	1,515	—	—	302	1,211	1,577
200,000 " 499,999		15	517	966	2,078	114	6,073	10,783	4,560	2	27	699	2,894	4,948
500,000 " 999,999	31	3,302	6,415	14,674	679	48,804	77,224	27,726	—	—	4,455	20,557	30,034	
1,000,000 " 4,999,999	17	6,461	13,900	33,910	1,315	74,797	162,466	86,313	—	—	8,999	50,151	95,160	
5,000,000 and over .....	...	...	...	...	...	...	...	...	...	...	84	1,025	(14)
Head offices, sales offices and auxiliary units	82	10,567	21,826	51,783	2,161	132,329	255,003	120,421	4	35	14,602	76,078	132,027	
Totals														

See footnotes following Table 3A.

TABLE 1C. Principal Statistics classified by Size Groups based on Manufacturing Value Added, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Size group	Estab- lish- ments	Manufacturing activity							Total activity					
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸	
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages		
	No.		'000			'000				'000		'000		
1961														
Under \$10,000	—	—	—	—	—	—	—	—	—	—	—	—	—	
\$ 10,000 to \$ 24,999	—	—	—	—	—	—	—	—	—	—	—	—	—	
25,000 " 49,999	}	9	124	245	458	24	1,218	1,800	552	3	9	163	610	652
50,000 " 99,999		9	161	315	583	41	2,053	3,316	1,223	—	—	236	904	1,390
100,000 " 199,999		18	696	1,485	2,920	153	9,831	15,773	5,862	3	8	1,020	4,392	6,163
200,000 " 499,999		16	1,315	2,463	5,650	248	15,278	26,772	11,374	—	—	1,958	8,507	11,683
500,000 " 999,999	22	4,762	10,282	23,129	1,006	54,969	104,715	48,621	—	—	6,438	32,133	52,650	
1,000,000 " 4,999,999	4	3,066	5,281	14,524	546	28,665	56,962	27,674	—	—	4,260	23,329	29,279	
5,000,000 and over	156	1,410	(55)
Head offices, sales offices and auxiliary units	78	10,124	20,073	47,264	2,017	112,015	209,338	95,307	6	16	14,231	71,287	101,782	
Totals														
1962														
Under \$10,000	—	—	—	—	—	—	—	—	—	—	—	—	—	
\$ 10,000 to \$ 24,999	}	6	35	82	142	11	460	718	245	2	8	55	207	268
25,000 " 49,999		7	247	414	1,136	55	3,543	4,160	564	—	—	319	1,419	2,131
50,000 " 99,999		7	169	306	629	29	1,499	2,396	907	—	—	198	762	909
100,000 " 199,999		17	707	1,304	2,867	143	8,741	14,798	5,833	2	27	946	3,925	6,310
200,000 " 499,999	18	1,636	3,356	7,612	314	26,988	40,066	12,759	—	—	2,251	10,703	13,212	
500,000 " 999,999	21	4,123	8,481	20,313	912	56,476	107,716	50,300	—	—	5,570	28,498	56,945	
1,000,000 " 4,999,999	6	3,650	7,904	19,084	695	34,622	85,150	49,813	—	—	5,179	29,540	52,265	
5,000,000 and over	84	1,025	(14)
Head offices, sales offices and auxiliary units	82	10,587	21,826	51,783	2,161	132,329	255,003	120,421	4	35	14,602	78,078	132,027	
Totals														

See footnotes following Table 3A.

TABLE 1D. Principal Statistics classified by Size Groups based on Total Value Added, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁶	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Under \$10,000	—	—	—	—	—	—	—	—	—	—	—	—	—
\$ 10,000 to \$ 24,999	—	—	—	—	—	—	—	—	—	—	—	—	—
25,000 " 49,999	8	104	217	409	20	1,056	1,560	477	3	9	140	549	508
50,000 " 99,999		154	284	511	32	1,648	2,859	1,180	—	—	209	732	1,261
100,000 " 199,999		669	1,439	2,783	156	9,471	15,046	5,493	3	8	975	4,158	5,636
200,000 " 499,999		1,369	2,570	5,907	257	16,206	28,196	11,861	—	—	2,053	8,974	12,483
500,000 " 999,999	17	4,762	10,282	23,129	1,006	54,969	104,715	48,621	—	—	6,438	32,133	52,650
1,000,000 " 4,999,999	22	3,066	5,282	14,524	546	28,665	56,962	27,674	—	—	4,260	23,329	29,279
5,000,000 and over	4	...	...	...	...	...	...	...	...	...	156	1,410	(55)
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	78	10,124	20,073	47,284	2,017	112,015	209,338	95,307	6	16	14,231	71,287	101,762
1962													
Under \$10,000	—	—	—	—	—	—	—	—	—	—	—	—	—
\$ 10,000 to \$ 24,999	—	—	—	—	—	—	—	—	—	—	—	—	—
25,000 " 49,999	5	27	47	93	9	418	626	199	2	8	44	148	207
50,000 " 99,999	7	76	146	293	13	1,282	1,762	469	—	—	102	404	496
100,000 " 199,999	7	169	306	629	29	1,499	2,396	907	—	—	198	762	910
200,000 " 499,999	15	610	1,143	2,503	116	7,272	12,432	4,964	2	27	800	3,321	5,049
500,000 " 999,999	19	1,589	3,267	7,333	299	26,379	38,997	12,315	—	—	2,165	10,267	12,816
1,000,000 " 4,999,999	22	4,216	8,548	20,870	950	58,204	107,129	47,947	—	—	5,668	29,173	51,444
5,000,000 and over	7	3,880	8,370	20,063	745	37,275	91,661	53,620	—	—	5,541	30,978	61,118
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	84	1,025	(14)
Totals	82	10,567	21,826	51,783	2,161	132,329	255,003	120,421	4	35	14,602	76,078	132,027

See footnotes following Table 3A.

TABLE 1E. Principal Statistics classified by Size Groups based on Total Employed,¹ 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁶	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Under 5 employees	—	—	—	—	—	—	—	—	—	—	—	—	—
5- 14 employees	4	30	61	111	11	419	889	461	3	9	39	141	459
15- 49 "	21	445	881	1,740	96	5,299	9,139	3,748	—	—	602	2,398	3,938
50- 99 "	16	799	1,711	3,437	160	11,708	18,492	6,688	3	8	1,175	5,263	7,270
100-199 "	13	1,251	2,621	5,654	277	15,623	28,841	13,033	—	—	1,768	7,921	15,654
200-499 "	20	4,533	9,518	21,799	928	50,301	95,015	43,702	—	—	6,231	30,824	45,217
500 employees and over	4	3,066	5,282	14,524	545	28,665	56,962	27,674	—	—	4,260	23,329	29,279
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	156	1,410	(55)
Totals	78	10,124	20,073	47,284	2,017	112,015	209,338	95,307	6	16	14,231	71,287	101,762
1962													
Under 5 employees	8	44	85	193	12	995	1,452	443	2	8	60	241	456
5- 14 employees	20	450	868	1,767	88	5,037	8,740	3,658	—	—	578	2,343	3,734
15- 49 "	16	850	1,675	3,696	184	15,000	23,332	8,067	2	27	1,217	5,558	8,509
50- 99 "	15	1,595	3,050	6,959	326	22,738	37,992	14,916	—	—	2,179	10,098	15,186
100-199 "	17	3,805	7,904	19,359	799	54,475	101,547	46,267	—	—	5,127	26,376	54,633
200-499 "	6	3,823	8,243	19,809	751	34,082	81,941	47,069	—	—	5,357	30,436	49,523
500 employees and over .....	...	...	...	...	...	...	...	...	...	...	84	1,025	(14)
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	82	10,567	21,826	51,783	2,161	132,329	255,003	120,421	4	35	14,602	76,078	132,027

See footnotes following Table 3A.

TABLE 1 F. Principal Statistics classified by Type of Organization, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Type of organization	Establishments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and electricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manufacture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Individual ownerships	—	—	—	—	—	—	—	—	—	—	—	—	—
Partnerships	78	10,124	20,073	47,264	2,017	112,015	209,338	95,307	6	16	14,075	69,876	101,817
Incorporated companies													
Cooperatives													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	156	1,410	(55)
Totals	78	10,124	20,073	47,264	2,017	112,015	209,338	95,307	6	16	14,231	71,287	101,762
1962													
Individual ownerships	—	—	—	—	—	—	—	—	—	—	—	—	—
Partnerships	82	10,567	21,826	51,783	2,161	132,329	255,003	120,421	4	35	14,518	75,053	132,040
Incorporated companies													
Cooperatives													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	84	1,025	(14)
Totals	82	10,567	21,826	51,783	2,161	132,329	255,003	120,421	4	35	14,602	76,078	132,027

See footnotes following Table 3 A.

TABLE 2. Industry Outputs, Inputs and Value Added, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Item	1961		1962	
	\$'000			
Manufacturing activity:				
Value of shipments—Goods of own manufacture.....		209,338		255,003
Add: Closing inventory—Goods in process .....	...		...
Finished goods	1,360	1,360	1,159	1,159
Deduct: Opening inventory—Goods in process .....	...		...
Finished goods	1,359	(1,359)	1,251	(1,251)
Gross output—Manufacturing activity		209,339		254,911
Deduct: Cost of materials and supplies used in manufacturing activity	112,015		132,329	
Cost of fuel and electricity used	2,017	(114,032)	2,161	(134,490)
Value added—Manufacturing activity		95,307		120,421
Non-manufacturing activities:				
Value of shipments—Goods not of own manufacture .....		..		22,699
Add: All other revenue .....	..		6,206	
Closing inventory—Goods purchased for resale	4,130	..	4,190	10,396
Deduct: Purchases of goods for resale as such			16,834	
Opening inventory—Goods not of own manufacture	3,864		3,337	
Cost of all other materials and supplies used .....	..	(..)	1,319	(21,490)
Value added—Non-manufacturing activities		6,455		11,605
Total value added		101,762		132,027

See footnote following Table 3 A.

TABLE 3. Employment and Payroll, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Year and province	Employees										Salaries and wages					
	Production and related workers				Adminis- trative and office ^{4, 5}		Sales, and distribution ⁶		Total employees ^{7, 8}		Production and related workers		Admin- istrative and office	Sales, and distri- bution	Total salaries and wages	
	Manufacturing ¹		Other ²								Manufacturing	Other				
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female						
1961	number										\$'000					
Nova Scotia.....	}	444	—	..	..	..	..	..	..	617	23	1,801	..	..	..	2,703
New Brunswick		3,237	—	..	..	..	..	..	..	4,304	225	14,415	..	..	..	23,678
Quebec		4,558	13	..	..	..	..	..	..	5,853	293	22,452	..	..	..	31,065
Ontario		471	26	..	..	..	..	..	..	694	72	2,288	..	..	..	3,740
Manitoba		140	—	..	..	..	..	..	..	219	14	581	..	..	..	993
Saskatchewan		632	5	..	..	..	..	..	..	916	66	2,787	..	..	..	4,370
Alberta		598	—	..	..	..	..	..	..	884	51	2,941	..	..	..	4,738
British Columbia																
Canada	10,080	44	..	..	..	..	..	..	13,487	744	47,284	..	..	..	71,287	
1962																
Nova Scotia.....	}	400	—	—	—	105	15	20	—	525	15	1,632	—	568	98	2,297
New Brunswick		3,270	6	—	—	924	218	50	6	4,244	230	15,787	—	8,789	428	25,004
Quebec		4,584	3	3	1	1,118	251	191	33	5,896	288	23,082	17	6,964	1,514	31,577
Ontario		575	27	—	—	197	37	16	2	788	66	3,047	—	1,347	113	4,506
Manitoba		159	—	19	1	66	15	6	1	250	17	646	77	390	41	1,153
Saskatchewan		665	5	16	5	251	67	43	3	975	80	3,035	80	1,651	258	5,024
Alberta		873	—	—	6	258	54	35	2	1,166	62	4,555	13	1,645	303	6,517
British Columbia																
Canada	10,526	41	38	13	2,919	657	361	47	13,844	758	51,783	187	21,353	2,755	76,078	

See footnotes following Table 3 A.

TABLE 3 A. Production and Related Workers,⁴ — Manufacturing Activity, by Months, 1962

Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Month	Establishments reporting monthly detail		
	Male		Female
	In shops	On erection	
	number		
January.....	7,166	2,230	39
February.....	7,397	2,242	40
March.....	7,322	2,377	40
April.....	7,582	2,458	41
May.....	8,004	2,722	41
June.....	8,558	3,158	41
July.....	8,526	2,952	41
August.....	8,706	2,575	42
September.....	8,398	2,588	42
October.....	8,327	2,629	41
November.....	8,088	2,549	41
December.....	7,871	1,982	41
Monthly averages.....	7,966	2,540	41

¹ See Table 2 and Explanatory Notes concerning manufacturing and non-manufacturing activities.

² See Explanatory Notes.

³ This category, in this table only, includes working owners and partners. Since administrative and office employees are engaged in a variety of activities they have been excluded from manufacturing activity beginning with the revised 1961 series shown in the following tables. They are included here for purposes of comparison with the tabulations of previous years.

⁴ Conceptually identical to previous years. See Explanatory Notes.

⁵ Cannot be reported separately for manufacturing and non-manufacturing activities but related substantially to manufacturing activity. Identical concept to previous years.

⁶ Working owners and partners were included with administrative and office employees in the "Manufacturing series" published in former years. See Explanatory Notes.

⁷ Includes production and related workers, administrative and office employees, sales distribution and other employees. See Explanatory Notes for the treatment of head office employees and those employed in auxiliary units.

⁸ Value of total shipments and other operational revenue less total cost of materials, supplies, fuels used and purchases of products and materials for resale in the same condition; all adjusted for inventory changes where required. See Table 2 and Explanatory Notes.

⁹ Sales and distribution workers and production workers (non-manufacturing) are included for the first time as a result of the full implementation of the new definition of the establishment. The figures for production workers (non-manufacturing), administrative and office employees and sales and distribution workers are not yet available for 1961 but form part of total employees. Sales and distribution workers may include some employees that are reported as part of a manufacturing establishment but are not working at the establishment's location. Head offices, sales offices, etc., which report separately are included in the figures for the province in which they are located.

¹⁰ These data cover the activities reported by separately located units such as head offices, sales offices, administrative offices, laboratories, warehouses, etc. Such units do not usually constitute separate "establishments" as they do not normally generate all the necessary elements of input and output statistics. However, they are treated as extensions of manufacturing establishments and, in the case of individual industries, may be located in provinces where no processing plants are situated. For the most part, these units contribute only to costs of operations (mainly salaries and wages) and they are included here to provide completeness and consistency of the statistics. See Explanatory Notes which deal with Single and Multi establishments for a complete explanation of procedures.

¹¹ Confidential data.

¹² Includes paid employees and working owners but excludes unpaid family workers.

Note: Figures may not add due to rounding.

TABLE 4. Materials and Supplies Used in Manufacturing Activity, 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Description	Quantity	Cost
		\$'000
1. Materials used:		
Steel (except alloy steel):		
Castings (rough and semi-finished received from foundry):		
Iron (gray and malleable)	ton 712	177
Steel	" 1,421	473
Bars	" 106,047	14,021
Plates ($\frac{3}{16}$ in. and thicker)	" 127,931	19,290
Sheets (under $\frac{3}{16}$ in.):		
Plain	" 8,875	1,487
Galvanized	" 4,439	911
Strips	" 9,461	1,216
Structural shapes	" 410,620	59,723
Wire	" ..	559
Alloy steel in all forms:		
Alloy steel (other than stainless and tool steel):		
Billets, bars and rods .....	... ..	329
Stainless - Billets, bars and rods .....	... ..	8
Other shapes .....	... ..	568
Tool steel (all types including high speed):		
Billets, bars and rods .....	... ..	96
Other shapes .....	... ..	-
Other iron and steel .....	... ..	3,395
Non-ferrous metals in all forms:		
Aluminum	lb. 377,334	174
Brass and bronze	" 22,326	16
Lead	" 200	-
Zinc	" 1,931,794	229
Other non-ferrous metals .....	... ..	9
Other materials and supplies:		
Paints, oils and varnishes .....	... ..	679
Lumber	M bd. ft. 767	74
All other materials and components used .....	... ..	18,860
2. Containers and other packaging materials and supplies used		1,994
3. Operating, maintenance and repair supplies used (excluding fuel)		4,879
4. Amount paid out to others for work done on materials owned by establishments		3,162
Total		132,329

¹ See Explanatory Notes.

TABLE 5. Fuel and Electricity Used¹ in Manufacturing Activity,¹ 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept³

Description	Quantity	Cost
		\$'000
Bituminous coal:		
(a) From Canadian mines	ton 3,477	43
(b) Imported	" 1,649	21
Sub-bituminous coal (from Alberta mines only)	-	-
Anthracite coal	ton 431	8
Lignite coal	" 2,532	16
Coke	" 24	1
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 1,237,349	440
Fuel oil including kerosene or coal oil	" 3,988,337	434
Wood	-	-
Gas:		
(a) Liquefied petroleum gases	Imp. gal. 104,050	27
(b) Other manufactured gas	M cu.ft. 10,434	11
(c) Natural gas	" 366,113	206
Other fuel	-	-
Electricity purchased	kwh. 76,060,531	955
Steam purchased .....	... ..	-
Total fuel and electricity used .....	... ..	2,161

¹ Does not include fuel and electricity produced for own use.

² Includes only fuel and electricity purchased. Conceptually identical to previous years in that it also includes relatively small amounts used in non-manufacturing activities since these cannot be reported separately.

³ See Explanatory Notes.

TABLE 6. Shipments of Goods of Own Manufacture, 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Description		Quantity	Value
			\$'000
1. Products:			
Structural work:			
Bridges	ton	79,210	33,627
Buildings	"	416,285	129,036
Transmission towers	"	24,664	9,746
Other structural steel	"	23,150	8,810
Metal tanks and vessels, custom fabricated and field erected:			
Bulk storage tanks	"	10,308	5,774
Pressure vessels and tanks including process vessels, tanks and kettles for refineries, etc.	"	2,359	1,373
Fabricated steel plate (factory assembled or formed and prepared for field erection) .....		...	8,740
Tanks (complete at factory) and cylinders:			
Tanks and vessels, pressure and vacuum (excluding hot water tanks):			
Liquefied petroleum gas tanks	No.	70	32
Other pressure and vacuum tanks and vessels .....		...	448
Storage and processing tanks .....		...	13,018
Boilers and parts .....		...	2,109
Heat exchangers .....		...	1,672
Holisting machinery and parts (except mine holists) .....		...	6,662
Miscellaneous products:			
Fabricated bar joists	ton	27,929	7,727
Fabricated concrete reinforcing bar	"	58,757	10,488
Work done in 1962 on products not completed at year-end .....		...	61,853
Less value of work done in previous years on products completed during 1962 .....		...	(68,920)
All other products .....		...	20,053
2. Amount received in payment for work done on materials and products owned by others			2,065
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above			(1,290)
Net adjustment for establishments receiving progress payments ²			—
Total adjusted value of shipments and work done			253,003

¹ See Explanatory Notes.

² See footnote 1, Table 7.

Note: Value of shipments in above table includes erected value for products which were fabricated and erected.

TABLE 7. Industry Inventories, 1962¹
Basis: Revised Standard Industrial Classification and New Establishment Concept²

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: ¹							
Nova Scotia	}	1,887	1,181	104	3,172	130	3,302
New Brunswick		12,612	7,742	88	20,442	667	21,109
Quebec		14,282	10,866	383	25,531	2,043	27,574
Ontario		2,416	1,300	383	4,099	234	4,333
Manitoba		1,346	172	24	1,542	17	1,559
Saskatchewan		4,019	2,811	—	6,830	245	7,075
Alberta		4,073	2,959	269	7,301	—	7,301
British Columbia							
Canada ⁴		40,636	27,031	1,251	68,918	3,337	72,255
Closing:							
Nova Scotia	}	1,401	452	28	1,881	161	2,042
New Brunswick		11,435	7,457	118	19,010	823	19,833
Quebec		13,117	9,709	379	23,205	2,297	25,502
Ontario		2,061	3,255	362	5,678	251	5,929
Manitoba		1,261	547	38	1,844	20	1,864
Saskatchewan		3,279	3,467	—	6,746	638	7,384
Alberta		3,533	4,696	236	8,465	—	8,465
British Columbia							
Canada ⁴		36,087	29,582	1,159	66,828	4,190	71,018

¹ Values represent book values of inventories 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.

² See Explanatory Notes.

³ The opening inventories may differ from the closing inventories for the previous survey 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.

⁴ Figures may not add due to rounding.

TABLE 8. Capital and Repair Expenditures, 1960 - 62

Year	Capital expenditures			Repair expenditures			Total capital and repair expenditures		
	Construction	Machinery and equipment	Sub-total	Construction	Machinery and equipment	Sub-total	Construction	Machinery and equipment	Total
	\$'000								
1960	1,102	4,160	5,262	642	3,647	4,289	1,744	7,807	9,551
1961	617	2,676	3,293	611	1,292	1,903	1,228	3,968	5,196
1962	1,516	3,774	5,290	766	2,279	3,045	2,282	8,053	8,335

Source: Business Finance Division, -DBS.

List of Firms in the Fabricated Structural Metal Industry, 1962

Name of firm	Location of plant
Nova Scotia:	
Canada Iron Foundries, Limited	Burnside
Robb Engineering Works Limited	51 La Planche St., Amherst
New Brunswick:	
Ocean Steel & Construction Ltd.	Saint John
York Structural Steel Co.	957 Union St., Fredericton
Quebec:	
Canada Iron Foundries Limited (Dominion Structural Steel Div.)	6894 Clanranald Ave., Côte St. Luc
Canadian Structural Steel Works Co. Ltd.	3700 Blvd. St. Joseph, Rosemount, Montreal
Canam Steel Works Inc.	411-1ère Ave., Ville St-Georges
Central Quebec Steel Ltd.	1005 Père Daniel, Trois-Rivières
Dominion Bridge Co. Ltd.	555 Notre Dame St., Lachine
Dynamic Industries, Inc.	45 Dorchester St. S., Quebec 2
Eastern Canada Steel & Iron Works Ltd.	Lesage Ave., Quebec
Leeds Bridge and Iron Works Ltd.	175 Wanklyn St., Ville La Salle
Lord & Company Ltd.	4700 Iberville St., Montreal
MacKinnon Structural Steel Company Limited	575 DesForges St., Sherbrooke
Marshall Steel Company Limited	Chomedey, Canton Bélanger
Pickard, Louis, & Co. Inc.	5585 Delaroche, Montreal
Quebec Structure & Metal Inc.	1845 St. Vallier, ouest, Quebec
Ross Structural Steel Ltd.	4900 Amiens, Montreal N.
Ste-Rose Steel Ltd.	Ste-Rose
Standard Structural Steel Ltd.	5330 Paré St., Montreal
Ontario:	
Anthes Steel Products Limited	3430 Dundas St. West, Toronto 9
Arc-Way Steel Construction Limited	Burlington
Argus Steel Construction Limited	5 Brydon Drive, Rexdale
Basic Structure	Burnaby Road, Wainfleet
Bomac Steel Co. Ltd.	Third Line W., Cooksville
Brayshaws Steel Limited	184 Van Horne St., Port Arthur
Bridge & Tank Co. of Canada	Depew St., Hamilton
Canada Iron Foundries Ltd. (Dominion Structural Steel Div.)	1630 Star Top Road, Ottawa
Canada Iron Foundries Ltd. (Dominion Structural Steel Div.)	100 Disco Road, Rexdale
Central Bridge Company, Limited	300 West St., Trenton
Cooksville Steel Limited	503 Dundas Hwy. E., Cooksville
Dominion Bridge Company Limited	1139 Shaw St., Toronto
Dominion Bridge Company Limited	Charlevoix St., Eastview
Dominion Bridge Company, Limited	177 Conmee Ave., Sault Ste. Marie
Dominion Steel & Coal Corp. Ltd. (Canadian Bridge Works)	1219 Walker Rd., Windsor

List of Firms in the Fabricated Structural Metal Industry, 1962 - Concluded

Name of firm	Location of plant
Ontario - Concluded	
Filton Metals Ltd.	1099 Splers Rd., Toronto
Frankel Steel Construction, Limited	East Don Roadway, Toronto 8
Hepburn, John T. Limited	914-948 Dupont St., Toronto 4
Horton Steel Works Limited	40 Jennet St., Fort Erie
Imperial Steel Construction Limited	Trunk Road, Sault Ste. Marie
Leeds Bridge and Iron Works Limited	Crosby Road, Gananoque
McDonald Welding Limited	235 Speers Road, Oakville
Millard Electric Limited	Highway No. 7, Perth
Newman Structural Steel Ltd.	64 North St., St. Catharines
Niagara Structural Steel Ltd.	Smith & Petrie Sts., St. Catharines
Noront Steel Construction Co. Limited	510 Whissell St., Sudbury
Procor Limited	Oakville
Samson Towers Ltd.	1285 Caledonia Road, North York
Scarboro Steel Works Limited	102 Manville Rd., Scarboro
Seaway Plate & Structural Steel Ltd.	65 Bruce St., Welland
Supreme Steel & Engineering Co. Ltd.	104 Industrial Rd., Richmond Hill
Toronto Iron Works, Limited, The	629 Eastern Ave., Toronto 8
United Steel Corporation Limited (London Steel Construction Div.)	48 Burslem St., London
United Steel Corporation Limited (Standard Steel Construction Co. Ltd.)	Port Robinson
York Steel Construction Ltd.	75 Ingram Drive, Toronto 9
Zoll Steel Works Limited	1214 Union St. N., Kitchener
Manitoba:	
Bridge & Tank Western Limited	Sutherland & Maple, Winnipeg 2
Canada Iron Foundries Limited (Western Bridge Div.)	560 Messier St., St. Boniface 6
Dominion Bridge Company, Limited	Dublin Ave., Winnipeg
Prasco Ltd.	1477 Erin St., Winnipeg
Sutherland Steel Ltd.	123 Anabella St., Winnipeg 4
Saskatchewan:	
Dominion Bridge Co. Ltd.	Twelfth & Francis, Regina
Mid-West Steel Products Ltd.	2-46 High St. East, Moose Jaw
Saskatchewan Steel Fabricators Ltd.	1050 St. John St., Regina
Alberta:	
Brittain Steel Ltd.	75 St. & 68 Ave., Edmonton
Canada Iron Foundries Limited (Western Bridge Div.)	223-53rd. Ave. S.E., Calgary
Canada Iron Foundries Limited (Western Bridge Div.)	Edmonton
Dominion Bridge Company Limited	803-24th Ave. S.E., Calgary
Dominion Bridge Company Limited	120th St. & 107th Ave., Edmonton
Horton Steel Works Limited	2902 Fourth Ave., Lethbridge
Steel-Weld Machine Co. Limited	9915-65th Ave., Edmonton
Western Metal Fabricators Ltd.	1501-2nd Ave. S., Lethbridge
British Columbia:	
A.I.M. Steel Ltd.	Vancouver
Allied Steel Fabricators Limited	700 Derivent Way Annacis Industrial Estate, New Westminster
Canada Iron Foundries Limited (Western Bridge Div.)	145 West 1st Ave., Vancouver 10
Coast Steel Fabricators Ltd.	7950 Venture St., Burnaby 2
Columbia, Steel Fabricating & Engineering Ltd.	Shaughnessy St., Vancouver 13
D.H.D. Steel Fabricators Ltd.	230 Brunette St., New Westminster
Dominion Bridge Co. Ltd.	2450 Boundary Road, Burnaby
Gilchrist Engineering & Steel Fabricators Ltd.	2525 Skeena, Vancouver 10

EXPLANATORY NOTES

This report is one in a series of about 140 publications which present the results of the 1962 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary reports for Canada and the provinces and special reports on geographical distribution and on type of ownership and size of establishments.

With the publication of the results of the 1962 Census of Manufactures, the Bureau has completed a major revision in the classification and concept of its annual census of manufacturing establishments. Because of its size and complexity, this project had to be carried out in three stages. The first stage was the change in classification and the results of the 1960 Census, together with the re-compilation of the 1957, 1958 and 1959 Censuses were published in the 1960 reports on the basis of the revised Standard Industrial Classification. This part of the project was confined entirely to a re-coding of existing reporting units. The second stage consisted of the implementation of the new definition of the reporting unit i.e. "establishment" as it applied to **manufacturing activities** of manufacturing establishments (See following note on "Establishment"). Results of the 1961 Census reflected this change in concept and, in order to provide comparability of data for recent years, the 1961 reports contained principal statistics on the basis of the new establishment definition for years back to 1957.

The third stage which was the extension of the definition of the establishment to cover **total activities** of manufacturing establishments is reflected in the statistics for 1961 and 1962 contained in this report. This full implementation of the new definition of the establishment has resulted in an extension of the data to non-manufacturing activities of manufacturing establishments and in additional changes in the 1961 statistics of manufacturing activities. Statistics on manufacturing activities will continue to be shown separately as in the past but, beginning with 1961, data on all operations (total activity) of manufacturing establishments will also be given. By definition "total activity" relates to all operational data and excludes such non-operational items as rent, interest and dividends. In addition, statistics on man-hours paid will be included as part of the regular series of industry statistics. For many industries, adjustments and revisions were made to the 1961 data on **manufacturing activities** which were published during the second stage to bring them in line with reporting procedures followed in the 1962 Census and to reflect the final application of the new concept. The 1961 statistics on manufacturing activities contained in this report are thus not entirely comparable with those published in the 1961 reports. However, the 1961 statistics are shown in this publication in both their original and revised forms in order to provide a link with the immediate past. A more complete account of recent changes and additions and brief descriptions of the principal industry statistics are given in following sections of these notes.

Standard Industrial Classification

The revised Standard Industrial Classification which was introduced with the 1960 Census of Manufactures and applied to the results of the 1957, 1958 and 1959 censuses provides for a breakdown of the manufacturing universe into 140 industries arranged in 20 major groups. Custom Tailoring Shops is the only industry class in the Manufacturing Industries Division of the classification which is not covered in the annual Census of Manufactures. It is surveyed as part of the Decennial Census of Merchandising and Service Establishments. Of the 140 "three-digit" industry classes in the Manufacturing Industries Division, 21 are further broken down into 67 "four-digit" sub-classes. With the exception of the Wood Preservation and Sound Recording industries, the figures for which are at present confidential and have to be included with those of related industries, the statistics for all of the "four-digit" sub-classes are published regularly. Thus, at the Canada level, principal statistics are compiled for 183 industries. These cannot all be published separately by province because of the confidential nature of the data in certain provinces.

Reporting establishments are classified or allotted to specific industries in the classification system on the basis of the value of principal products made or shipped. In general, establishments primarily engaged in repair work (Shoe Repair Shops, Motor Vehicle Repair Shops etc.) are not included in manufacturing industries. Exceptions are establishments primarily engaged in furniture, ship, boat, aircraft and railroad rolling stock repairs which are classified to the manufacturing industries producing the products involved. Establishments primarily engaged in assembling parts into complete units have always been included in manufacturing industries.

Full details concerning the revised classification system are contained in the Standard Industrial Classification Manual, Catalogue No. 12-501, which is available from either the Queen's Printer or the Dominion Bureau of Statistics.

It should be noted that two new industries (Poultry Processors and Dental Laboratories) and three new groups of establishments (book publishers in the Publishing Industry, electro-plating establishments in the Metal Stamping, Pressing and Coating Industry and prescription branches in the Ophthalmic Goods Manufacturers Industry) have been included in the 1961 (revised) and 1962 Census statistics and will continue to be included thereafter. They were surveyed for the first time in the 1960 Census (1961 Census in the case of prescription branches) in line with the revised classification but, since they did not represent new production, they were removed from the 1960 and 1961 compilations published in the 1961 Census reports in order to provide complete comparability of data over the period 1957-61. Statistics for this period are repeated in the 1962 reports to supply a link with the revised 1961 data and the new 1962 statistics.

Establishment

The reporting unit in the Census of Manufactures is the **establishment**. The majority of establishments are firms, but many firms have more than one manufacturing establishment. Such firms are requested to submit a separate Census of Manufactures report for each manufacturing establishment which can meet the reporting requirements described below.

Beginning with the 1961 Census of Manufactures the establishment is defined as follows:

"The smallest unit which is a separate operating entity capable of reporting all 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,
Inventories,
Shipments or sales."

Following is a description of the main features of the new establishment concept introduced in the 1961 Census, how they differ from those of the old "activity" concept and the steps taken to correct for breaks in continuity.

(a) The establishment is to be distinguished from smaller subdivisions or departments which do not have records that permit them to report all items required of an establishment. Prior to 1961, some establishments were required to submit two or more separate reports when they were engaged in activities which were classifiable to different industries. Beginning with 1961, separate reports for such activities are required only in cases where accounting records can provide the necessary input and output elements of principal statistics. Special reporting arrangements were made with respondents when the acceptance of combined reports would have seriously affected the statistics for particular industries or areas. Where continuity of industry statistics was affected by this change in reporting procedures, adjustments to the data were made back to 1957 in order to maintain comparability of the series for recent years.¹

(b) A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing activities. Prior to 1961, the Census of Manufactures attempted to cover the manufacturing activities of all establishments, whether or not they were primarily engaged in manufacturing. Beginning with the 1961 Census, establishments (accounting entities) which are not primarily engaged in manufacturing are no longer included as manufacturing establishments in the basic industry statistics.¹

Again, adjustments were made to reflect the removal of such reporting units for the period 1957-60. These reporting units are now listed as establishments in other Bureau surveys, such as Wholesale Trade, Construction etc. This has resulted in a somewhat smaller universe represented by the Census of Manufactures. In terms of overall 1960 Census results, the number of establishments transferred to other industries totalled 2,786 or 8% but these represented only 0.7% of total employment and of total value of shipments of manufactured products. In order, however, to maintain complete coverage of certain commodity items produced mainly in manufacturing establishments, many non-manufacturing establishments are now surveyed by the Industry Division for commodity shipments only and the latter are included in those tables of industry reports showing shipments of certain commodities "from all industries"

(c) A manufacturing establishment may be, and often is, engaged in other activities in addition to its principal manufacturing activity. Prior to 1961 the main emphasis in the Census of Manufactures was on manufacturing activity. Beginning with 1961, each establishment reports on all the activities carried out within its accounting boundaries (except income from investments such as rent, interest and dividends) and data on different activities (manufacturing, trading in goods not of own manufacture, construction by own labour force, revenue from services etc.) are requested separately. However, the statistics published in the 1961 reports were confined to manufacturing activity only in order to maintain comparability with previous years and to permit a more thorough audit of the new data. The 1962 reports contain principal statistics on total activities of manufacturing establishments for 1961 and 1962 with the main elements of manufacturing activity shown separately as in the past. It should be noted that the statistics for separate activities are not completely consistent. Some respondents cannot distinguish in their records materials, shipments and inventories relating to own manufacturing activities from those relating to goods not of their own manufacture or to other activities and can report operational data in total only under manufacturing activity. This situation has always existed, however, and is not considered important enough to invalidate the use of the data in the measurement of manufacturing as an "activity". The values assigned by the respondent to materials and shipments of own manufactured goods include costs in varying degrees that relate to internal (to the establishment) transportation, warehousing and selling activities, but it is not possible to make adjustments to arrive at a uniform valuation for manufacturing activity only; although valuation at the establishment "boundary" must be accepted, the items valued under manufacturing activities still relate, in most cases, to "goods of own manufacture". In the case of employment only data on manufacturing production workers and manufacturing man-hours can be assigned, in total, to manufacturing activity; administrative and office employees can seldom be allocated to separate activities.

¹ Most of these adjustments were made when the results of the 1961 Census were being compiled. Since publication of these results in the 1961 reports additional adjustments were made to the 1961 data, as noted earlier, and these are reflected, where applicable, in the revised 1961 statistics contained in this report.

Complete consistency, therefore, can be obtained only at the "all operations" (total activity) level, and for studies or statistical measures requiring accurate co-ordinated data, the "total" statistics should be used.

(d) Additional changes resulted from intensive editing and follow-up consistent with the introduction of the new concept. An example of such changes is the provision for the elimination, in total, of sales taxes and outward transportation charges from value of shipments. Prior to 1961, although the value of shipments for each product was requested excluding taxes and transportation charges, no allowance had been made for the reporting of these items in total when the respondents' records did not permit their deduction from the values of the individual products. Another example is a change in the valuation of shipments where, prior to 1961, a manufacturing company operating warehouses or sales outlets was reporting value of shipments in terms of an estimated manufacturer's price in accordance with the old activity concept, even though his records were not kept on this basis. Since the accounting boundary in such cases extends to distribution operations, the respondent was instructed in 1961 to report shipments at the final selling price in order to obtain more realistic and accurate data.² Adjustments were made to the value of shipments for the period 1957-60 to reflect such changes and maintain continuity of the shipments data. Since no actual data to make these corrections were available for back years, 1961 adjustment ratios were applied to the previous years for each industry affected, on the assumption that the valuation changes in 1961 applied in equal proportions to the preceding period.³

(e) The new concept also demands that inventories held apart from plant be included with plant inventories if establishment boundaries extend to warehouses and sales outlets. Prior to 1961, compilations took into account only the inventories held at plant. In this case, however, most of the missing data were available from supplementary questions in the Annual Census and from the Monthly Inventories and Shipments Survey and actual corrections could be made for previous years.

² Some manufacturing firms operate sales branches or selling warehouses as separate sales establishments for which complete accounting records of receipts, expenses, employment and sales are maintained. In such cases the plants, in effect, "sell" to the sales outlets on much the same basis as they would to independent buyers. The value of plant shipments is based on factory prices and the "boundary" of the manufacturing establishment does not extend beyond the plant. The sales outlets in such cases constitute separate sales establishments and are classified to wholesale or retail trade. Some sales outlets of manufacturing firms, although they physically handle products of the plants, do not maintain separate accounts and are generally treated for statistical purposes as extensions of manufacturing operations. Special arrangements were made for separate reporting in a few cases where the treatment of such outlets as manufacturing extensions would seriously affect the significance of statistics for particular manufacturing and trade industries.

³ See footnote 1.

(f) Prior to 1961 the Census of Manufactures did not have complete coverage of head and administrative offices and had never surveyed separate sales offices, warehouses or laboratories operated by manufacturing firms. Beginning with the 1961 survey, complete coverage of these auxiliary units was effected. In the past the employment and salaries and wages of those head and administrative offices that were surveyed were either coded in total to the industry in which the greatest portion of the company's manufacturing activities was classified or else, in the case of certain large multi-unit firms with establishments in several industries, were pro-rated among the different industries involved. In the original 1961 statistics published in 1961 reports, the same coverage and treatment of head offices was applied to maintain comparability over the 1957-61 period. Beginning with the revised 1961 statistics, all head offices and auxiliary units are covered and are processed according to the methods described below.

1. Single-Establishment Companies

In the great majority of cases central administrative and executive personnel of companies consisting only of one establishment are generally located at the site of the manufacturing plant and are automatically included in the plant reports. Where head offices and auxiliary units are geographically separate from plant locations and employ a sizeable number of workers they are surveyed on special questionnaires.

Separately located head offices, sales offices, administrative offices and other separate auxiliary units (laboratories, warehouses, etc.) do not usually constitute separate establishments⁴ for purposes of industry statistics since they do not normally generate operational revenues but give rise only to costs of operation (mainly salaries and wages) which make up part of the selling price of manufactured products and which are thus included in the value of shipments or sales. Where such units belong to single-establishment companies, they will be considered as extensions of the establishment's boundaries and their operations consolidated with the establishment's total activity.

2. Multi-Establishment Companies

In the case of companies with more than one establishment the following rules are applied:

(i) Where all the establishments of a company are classified to the same (three-digit) industry, the head office and other auxiliary units are coded to that same industry.

(ii) Where the establishments of a company are not all classified to the same (three-digit) industry but are coded to different industries, or industries in different industry groups or even different divisions

⁴ See footnote 2 for exceptions.

of the Standard Industrial Classification, the inclusion of data for head office and auxiliary units in any one of the (three-digit) industries concerned would distort the relationship between items of principal statistics. In such cases, the auxiliary units are coded at the group (two-digit) level in tabulations of industry statistics. Where multi-establishment companies cut across group or major division lines of the Classification, the head office and auxiliary units will be coded to the (two-digit) industry group in which the major part of the company's operations are classified. Although this may result in some distortion of (two-digit) industry group statistics it will eliminate distortion within groups as it will leave statistics at the (three-digit) industry level free of these company-wide data.

Period Covered

Respondents are asked to submit figures for the calendar year, if at all possible, and most reports are on this basis. Financial year reports for periods differing from the calendar year are accepted in instances where respondents find it impossible to supply calendar year data from accounting records. However, the data on employees, salaries, wages and man-hours are requested on a calendar year basis in all cases.

When establishments are operated for only a portion of a year, a report is required covering the period of operation.

Working Owners or Partners

Beginning with the revised 1961 statistics working owners and partners of unincorporated businesses are shown as a separate category in the principal statistics and are neither included in the number of employees nor in 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. In all previous reports of the Census of Manufactures these workers were included as part of the number of administrative and office employees and their withdrawals were included as part of salaries. Withdrawals are defined as amounts withdrawn by owners or partners for normal living expenses, excluding withdrawals for payment of income tax.

Number of Establishments

The number of establishments represents the number of operating units (accounting entities as per the new definition of the establishment) for which separate reports are submitted. Head offices located apart from establishments and which are surveyed separately and separate sales and administrative auxiliaries that are treated as extensions of manufacturing activities are not included in the establishment count. However, the operational statistics (employment, salaries etc.) of such auxiliary units which are coded at the "three-digit"

level are included in the principal statistics of industries coded at the same level; those units coded at the "two-digit" level are included with the statistics for groups of industries.

Employees

As noted above, the number of working owners and partners are excluded from the number of employees, beginning with the revised 1961 statistics. This change brings the definition of "employees" in the Census of Manufactures in line with that of "employees" in the Bureau's monthly Employment Survey and with that of "paid workers" in the Bureau's Labour Force Survey. For purposes of historical comparisons, the number of working owners and partners should be added to total employees (beginning with the revised 1961 data) in order to correspond with the figure of "total employees" published in previous reports concerned with the Annual Census of Manufactures.

In addition to production and related workers engaged in manufacturing activities, total employees include administrative, office, sales and distribution workers as well as any production workers employed in non-manufacturing activities such as construction undertaken for the use of the establishment by its own employees (when these are treated as a separate work force) or logging (mostly in connection with sawmills or planing mills). Number of employees represents as closely as possible equivalent annual full-time employment. Adjustments are made when reported figures indicate the existence of part-time or seasonal employment.

Administrative and office employees include all executive and supervisory officials such as presidents, vice-presidents, controllers, secretaries, treasurers etc., together with managers, professional, technical and research employees, superintendents and factory supervisors above the working foreman level, and clerical staffs. Also included are employees in activities such as advertising, credit collections, purchasing, personnel, legal, medical etc. Sales and distribution workers include office personnel whose salaries are charged to selling expense, travelling salesmen, driver salesmen, truck drivers and their helpers, etc. They exclude persons working on a commission basis who are not considered regular employees.

Production and related workers in manufacturing activities include, in addition to those engaged in processing and assembling, those employed in storing, inspecting, handling, packing, warehousing, etc. They also include employees in related activities such as maintenance, repair, janitorial and watchman services. Working foremen doing similar work to that of employees they supervise are also included. Production workers employed in non-manufacturing activities such as construction undertaken for the use of the establishment, logging

employees or outside piece-workers employed in certain industries are excluded from the number of production and related workers but are part of the total number of employees in those industries.

Production and related workers 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 twelve. This procedure is followed even though the plant did not operate in all months in order to derive equivalent annual full-time employment. The numbers are somewhat affected by turn over, in that employment is overstated when an employee changes employment within the same industry during a pay period. Other categories of workers are reported in the form of annual averages. Figures on employment and man-hours refer to the calendar year whether or not some establishments report other data on a financial year basis.

Man-hours of production and related workers in manufacturing activities 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.

Salaries and Wages

Salaries and Wages refer to gross earnings of the employees described above, **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 workers' earnings. Payments for overtime are included.

Wages refer to amounts paid to production and related workers engaged in manufacturing operations as defined above. Salaries refer to amounts paid to all other categories of employees including relatively small numbers of production workers engaged in construction and extractive operations or who are employed as outside piece-workers. Figures on salaries and wages refer to the calendar year whether or not some establishments reported other data on a financial year basis.

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.

Materials and Supplies

(a) Used in 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. The statistics represent only commodity items or physical goods (costs 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. Respondents are required to report materials and supplies **used not purchased**. 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) Purchases for resale as such. Figures represent the 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.

(c) 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. Value of construction and repair work done by outside contractors is 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 medical supplies, laboratory supplies etc.

Shipments

In general the figures represent revenue from all production, sales, services and related activities of reporting establishments. Non-operating revenues such as rent, interest and dividends and the sale of used fixed assets are excluded.

(a) 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 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. (See notes on "Establishment").

Such shipments are net of returned goods, and value figures at the establishment exclude discounts, returns, allowances, sales taxes and excise duties, returnable containers, and charges for outward transportation by common or contract carriers. Transportation or delivery expenses incurred by the reporting establishments' own carriers are not deducted.

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 form B.13 "Customs Canada, Export Entry" has been completed, are treated as shipments.

In four industries, viz. Fabricated Structural Metal Industry, Aircraft and Parts Manufacturers, Railroad Rolling Stock Industry and Shipbuilding and Repair, where work on principal products extends over a relatively long period, the value of production, rather than the value of shipments, is recorded. For these industries value of production is computed from the value of deliveries of complete units during the year plus the value of work done during the year on unfinished units less the value of work done in previous years on units delivered in the year under review. Adjustments to the value of shipments are also made for firms in these industries and in some other industries which operate on the basis of progress payments. The latter are treated as sales and not as inventory, so that for firms which use a progress payments account, an adjustment to the value of shipments is made for the net change in this account during the year.

(b) Shipments of goods not of own manufacture

These figures represent the net selling value at the establishment (less discounts, returns, allowances, sales taxes and excise duties 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 goods on a rental basis value of shipments represents the book value of such goods. All sales of consignment goods from other countries are included.

(c) Other revenue

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs and alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishments' 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 establishments' own employees, such as revenue from goods produced for rental (the book value of such goods are included as part of factory shipments), servicing revenues, commissions on sales (when not included in value of sales), revenue from company-operated cafeterias and lunch counters and revenue from outside installation or construction work not related to the establishments' 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 inventory

Values represent the book value of manufacturing inventory owned in Canada. The value of inventory held for which progress payments have been received is treated as shipments and is not included in inventory owned. 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. Inventory owned abroad has already been reported as shipments and is excluded.

(b) Inventory of goods purchased for re-sale

Figures represent the book value of inventory of goods purchased for re-sale as such without further processing, owned by reporting establishments and held at the plants and at any warehouses or selling outlets which are treated as extensions of establishments. Inventory owned in transit in Canada or on consignment in Canada is included.

Because of changes in classification, the receipt of revised data, the inclusion of new establishments or the removal of old establishments which did not operate during the latest year, the opening inventory for the latest year does not necessarily coincide with the closing inventory of the preceding year.

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 total activities

Figures consist of value added by manufacturing activities plus value added by non-manufacturing activities and is compiled by deducting the cost 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, adjusted for changes in the value of inventories of goods purchased for re-sale.

"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 in 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.

Short Forms

Since 1949, in order to ease the reporting burden for smaller firms, a one-page short form has been used asking for only a limited amount of detail. For purposes of publication, missing data were estimated on the basis of appropriate ratios. Beginning with the 1959 census, the general limit for short forms was raised from \$50,000 (the limit used since 1949) to \$100,000 value of shipments and a new medium form was used. This form is a shortened version of the long form in that some of the general questions were pared down and the detailed lists of materials and products were limited to the more important items. The general limits for firms in this category were set at between \$100,000-\$500,000 value of shipments, but in the case of both the

short and medium forms there are lower cut-offs for a number of industries in which the smaller firms account for a larger share of total shipments.

Prior to 1961, the short form was limited to a question on the principal items of factory shipments. In the 1961 and 1962 censuses, in addition to the question on shipments of goods of own manufacture, general questions on employment and payroll and on total revenue were added on all short forms. The other elements of principal statistics, viz. value of materials, fuel and electricity and inventories, were estimated by using ratios based on the change in the value of shipments reported in 1961 and 1962. This was done to permit the complete compilation of basic industry statistics by industry and by geographic location. The proportions of the estimated data was generally less than 5 per cent of the total in each category of principal statistics.

Beginning with the 1963 census, general questions on total purchases of materials, fuel and electricity and on total inventory were added on the short forms. The two questions, however, were designed so that the data can be easily derived from respondents' regular accounting records. This will permit a complete tabulation of principal statistics without the necessity of estimating missing items and will result in increased accuracy for rural area statistics where small firms account for a relatively important part of industrial output.

The addition of extra questions on the short form in recent years has also permitted an increase in the cut-off limits for short forms in many industries. This has meant that many more firms are now receiving the short form instead of the long or medium form. It has also resulted in the withdrawal of the medium form in a number of industries, thus further simplifying collection and tabulation procedures.

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