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# CEMENT MANUFACTURERS

## 1962

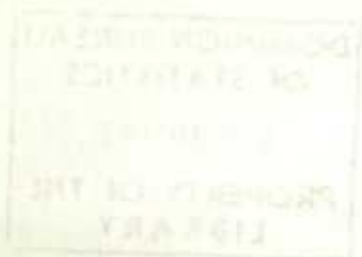
### ANNUAL CENSUS OF MANUFACTURES

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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.

# CEMENT MANUFACTURERS

1962

This report includes statistics for industry 341 — Cement Manufacturers of the Standard Industrial Classification Manual (Catalogue No. 12-501).

Data presented in this report under the heading of Cement Manufacturers reflect the 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.

The chief product of this industry is Portland cement, but these plants also ship masonry cement, portland — pozzolana cement and limestone.

Compilations are based on these measurements; Portland cement, 1 barrel = 350 pounds = 4 bags (87½ lb. ea.); Masonry cement, 1 barrel = 280 pounds = 4 bags (70 lb. ea). Quantities are expressed in short tons of 2,000 pounds.

The commodity statistics shown in Table 8 and subsequent tables indicate that the producers' shipments in 1962 increased by 10.8 per cent in quantity and 9.0 per cent in value from the shipments made in the preceding year. The value of containers has not been included in the above valuation.

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. The changes in the manufacturing activity of the industry under review, resulting from the implementation of the final stage of the establishment concept, were nil.

**TABLE 1. Principal Statistics - Manufacturing Activity,<sup>1</sup> 1957-61**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>2</sup>

Year	Estab- lish- ments	Employees						Cost of fuel and elec- tricity <sup>4</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>
		Production and related workers <sup>4</sup>		Administrative and office employees <sup>3</sup>		Total <sup>4</sup>					
		Number	Wages	Number	Salaries	Number	Salaries and wages				
	No.		\$'000		\$'000			\$'000			
1957 .....	17	3,054	13,042	462	2,627	3,516	15,669	19,693	16,194	95,496	..
1958 .....	19	2,921	13,020	564	3,340	3,485	16,360	19,009	14,758	98,278	66,414
1959 .....	19	2,886	13,314	630	3,860	3,516	17,174	17,309	13,270	97,232	66,066
1960 .....	20	2,757	13,115	641	4,008	3,398	17,123	15,965	11,294	95,316	68,251
1961 .....	20	2,557	12,923	556	3,775	3,113	16,697	16,262	14,359	107,246	76,423

See footnotes following Table 3 A.

**TABLE 1 A. Principal Statistics - Manufacturing Activity and Total Activity,<sup>1</sup> 1961 and 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>2</sup>

Year and province	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and elec- tricity <sup>4</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		\$'000			\$'000				\$'000		\$'000	
1961													
Newfoundland .....	1	900	2,043	4,386	5,922	5,620	37,373	25,660	-	-	1,414	7,211	25,803
New Brunswick .....	1												
Quebec .....	5												
Ontario .....	6	840	1,823	4,327	5,981	4,316	35,972	25,264	-	-	1,127	6,225	25,747
Manitoba .....	1	817	1,778	4,210	4,359	4,423	33,901	25,499	-	-	1,049	5,818	25,422
Saskatchewan .....	1												
Alberta .....	3												
British Columbia .....	2												
Totals .....	20	2,557	5,644	12,923	16,262	14,359	107,246	76,423	-	-	3,590	19,255	76,971
1962													
Newfoundland .....	1	964	2,145	4,751	6,528	6,193	39,156	26,802	-	-	1,483	7,804	26,629
New Brunswick .....	1												
Quebec .....	5												
Ontario .....	6	855	1,926	4,794	6,676	5,057	39,995	28,486	-	-	1,152	6,911	29,371
Manitoba .....	1	810	1,738	4,199	4,515	4,972	37,555	28,334	-	-	1,044	5,921	28,167
Saskatchewan .....	1												
Alberta .....	3												
British Columbia .....	2												
Totals .....	20	2,629	5,810	13,743	17,719	16,221	116,706	83,622	-	-	3,679	20,636	84,166

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 Concept<sup>2</sup>

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and elec- tricity <sup>3</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		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 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 " 99,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 " 199,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 " 499,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
500,000 " 999,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 " 4,999,999 .....	10	990	2,214	4,956	4,806	4,533	31,088	21,222	-	-	1,222	6,176	21,462
5,000,000 and over .....	10	1,567	3,429	7,966	11,456	9,826	76,158	55,200	-	-	2,020	10,882	55,656
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	348	2,197	(146)
Totals .....	20	2,557	5,644	12,923	16,262	14,359	107,246	76,423	-	-	3,590	19,255	76,971
1962													
Under \$10,000 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
25,000 " 49,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 " 99,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 " 199,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 " 499,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
500,000 " 999,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 " 4,999,999 .....	9	874	1,922	4,299	4,189	4,541	26,392	17,816	-	-	1,063	5,491	17,749
5,000,000 and over .....	11	1,755	3,887	9,444	13,530	11,680	90,314	65,806	-	-	2,257	12,735	66,629
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	359	2,410	(212)
Totals .....	20	2,629	5,810	13,743	17,719	16,221	116,706	83,622	-	-	3,679	20,636	84,166

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 Concept<sup>2</sup>

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and elec- tricity <sup>3</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>4</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		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 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
50,000 " 99,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
100,000 " 199,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
200,000 " 499,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
500,000 " 999,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
1,000,000 " 4,999,999 .....	17	1,907	4,229	9,562	11,066	19,850	74,529	51,892	—	—	2,415	12,552	51,980
5,000,000 and over .....	3	850	1,414	3,361	5,197	3,509	32,717	24,531	—	—	827	4,506	25,138
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	348	2,197	(146)
Totals .....	20	2,557	5,644	12,923	16,262	14,359	107,246	76,423	—	—	3,590	19,255	76,971
1962													
Under \$10,000 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
\$ 10,000 to \$ 24,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
25,000 " 49,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
50,000 " 99,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
100,000 " 199,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
200,000 " 499,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
500,000 " 999,999 .....	14	1,476	3,285	7,490	9,849	9,341	57,837	39,365	—	—	1,815	9,579	39,307
1,000,000 " 4,999,999 .....									—	—	1,505	8,647	45,071
5,000,000 and over .....	6	1,153	2,524	6,253	7,870	6,880	58,870	44,257	—	—	1,505	8,647	45,071
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	359	2,410	(212)
Totals .....	20	2,629	5,810	13,743	17,719	16,221	116,706	83,622	—	—	3,679	20,636	84,166

See footnotes following Table 3A.



**TABLE 1 D. Principal Statistics classified by Size Groups based on Total Value Added, 1961 and 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>1</sup>

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and elec- tricity <sup>5</sup>	Cost of materials and supplies used <sup>6</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		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 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
100,000 " 199,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
200,000 " 499,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
500,000 " 999,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
1,000,000 " 4,999,999 .....	17	1,907	4,229	9,562	11,066	10,850	74,529	51,892	—	—	2,415	12,552	51,980
5,000,000 and over .....	3	650	1,414	3,361	5,197	3,509	32,717	24,531	—	—	827	4,506	25,138
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	348	2,197	(146)
Totals .....	20	2,557	5,644	12,923	16,262	14,359	107,246	76,423	—	—	3,590	19,255	76,971
1962													
Under \$10,000 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
\$ 10,000 to \$ 24,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
25,000 " 49,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
50,000 " 99,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
100,000 " 199,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
200,000 " 499,999 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
500,000 " 999,999 .....	13	—	—	—	—	—	—	—	—	—	—	—	—
1,000,000 " 4,999,999 .....		1,310	2,894	6,617	8,323	8,394	50,500	34,389	—	—	1,638	8,645	34,260
5,000,000 and over .....	7	1,319	2,915	7,126	9,396	7,827	66,206	49,233	—	—	1,682	9,580	50,118
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	359	2,410	(212)
Totals .....	20	2,629	5,810	13,743	17,719	16,221	116,706	83,622	—	—	3,679	20,636	84,166

See footnotes following Table 3 A.

**TABLE 1 E. Principal Statistics classified by Size Groups based on Total Employed,<sup>11</sup> 1961 and 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>2</sup>

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and elec- tricity <sup>5</sup>	Cost of materials and supplies used <sup>6</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
1961	No.		'000			'000				'000		'000	
Under 5 employees .....	—	—	—	—	—	—	—	—	—	—	—	—	—
5- 14 employees .....	—	—	—	—	—	—	—	—	—	—	—	—	—
15- 49 " .....	4	277	637	1,442	1,560	1,960	13,221	9,827	—	—	319	1,691	9,812
50- 99 " .....													
100- 199 " .....	10	1,171	2,586	5,768	6,981	6,313	42,723	28,622	—	—	1,480	7,553	28,840
200- 499 " .....	6	1,109	2,420	5,712	7,722	6,085	51,302	37,974	—	—	1,443	7,813	38,466
500 employees and over .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	348	2,197	(146)
Totals .....	20	2,557	5,644	12,923	16,262	14,359	107,246	76,423	—	—	3,590	19,255	76,971
1962													
Under 5 employees .....	—	—	—	—	—	—	—	—	—	—	—	—	—
5- 14 employees .....	—	—	—	—	—	—	—	—	—	—	—	—	—
15- 49 " .....	3	151	328	768	1,257	1,764	11,377	8,006	—	—	175	912	7,997
50- 99 " .....													
100- 199 " .....	11	1,268	2,815	6,359	8,179	7,230	46,753	32,562	—	—	1,586	8,319	32,534
200- 499 " .....	6	1,210	2,666	6,616	8,283	7,227	58,576	43,054	—	—	1,559	8,995	43,847
500 employees and over .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	359	2,410	(212)
Totals .....	20	2,629	5,810	13,743	17,719	16,221	116,706	83,622	—	—	3,679	20,636	84,166

See footnotes following Table 3 A.

**TABLE 1 F. Principal Statistics classified by Type of Organization, 1961 and 1962**

Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>1</sup>

Type of organization	Establishments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and electricity <sup>5</sup>	Cost of materials and supplies used <sup>6</sup>	Value of shipments of goods of own manufacture <sup>8</sup>	Value added <sup>9</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>9</sup>
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1961</b>													
Individual ownerships .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Partnerships .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Incorporated companies .....	20	2,557	5,644	12,923	16,262	14,359	107,246	76,423	—	—	3,242	17,058	77,118
Cooperatives .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	348	2,197	(146)
<b>Totals .....</b>	<b>20</b>	<b>2,557</b>	<b>5,644</b>	<b>12,923</b>	<b>16,262</b>	<b>14,359</b>	<b>107,246</b>	<b>76,423</b>	<b>—</b>	<b>—</b>	<b>3,590</b>	<b>19,255</b>	<b>76,971</b>
<b>1962</b>													
Individual ownerships .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Partnerships .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Incorporated companies .....	20	2,629	5,810	13,743	17,719	18,221	118,706	83,622	—	—	3,320	18,226	84,378
Cooperatives .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	359	2,410	(212)
<b>Totals .....</b>	<b>20</b>	<b>2,629</b>	<b>5,810</b>	<b>13,743</b>	<b>17,719</b>	<b>18,221</b>	<b>118,706</b>	<b>83,622</b>	<b>—</b>	<b>—</b>	<b>3,679</b>	<b>20,636</b>	<b>84,166</b>

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 Concept<sup>1</sup>

Item	1961	1962
	\$'000	
<b>Manufacturing activity:</b>		
Value of shipments—Goods of own manufacture .....	107,246	116,706
Add: Closing inventory—Goods in process .....	3,046	3,686
Finished goods .....	5,249	5,465
Deduct: Opening inventory—Goods in process .....	2,777	3,046
Finished goods .....	5,720	5,249
Gross output—Manufacturing activity .....	107,044	117,562
Deduct: Cost of materials and supplies used in manufacturing activity .....	14,359	16,221
Cost of fuel and electricity used .....	16,262	17,719
Value added—Manufacturing activity .....	76,423	83,622
<b>Non-manufacturing activities:</b>		
Value of shipments—Goods not of own manufacture .....	..	1,553
Add: All other revenue .....	..	1,432
Closing inventory—Goods purchased for resale .....	18	12
Deduct: Purchases of goods for resale as such .....	..	1,426
Opening inventory—Goods not of own manufacture .....	12	18
Cost of all other materials and supplies used .....	..	1,007
Value added—Non-manufacturing activities .....	548	546
<b>Total value added .....</b>	<b>76,971</b>	<b>84,166</b>

See footnote following Table 3 A.

**TABLE 3. Employment and Payroll, 1961 and 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>2</sup>

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office <sup>3</sup>		Sales, and distribution <sup>3</sup>		Total employees <sup>3,4</sup>		Production and related workers		Adminis- trative and office	Sales, and distrib- ution	Total salaries and wages
	Manufacturing <sup>4</sup>		Other <sup>5</sup>												
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other			
	number										\$'000				
1961															
Newfoundland .....	900	—	..	..	..	..	..	..	1,306	108	4,386	..	..	..	7,211
New Brunswick .....															
Quebec .....	838	2	..	..	..	..	..	..	1,085	42	4,327	..	..	..	6,225
Ontario .....	817	—	..	..	..	..	..	..	1,010	39	4,209	..	..	..	5,818
Manitoba .....															
Saskatchewan .....															
Alberta .....															
British Columbia .....															
Totals .....	2,555	2	..	..	..	..	..	..	3,401	189	12,923	..	..	..	19,255
1962															
Newfoundland .....	964	—	51	12	234	76	122	24	1,371	112	964	63	310	146	7,804
New Brunswick .....															
Quebec .....	853	2	4	—	186	27	70	10	1,113	39	855	4	213	80	6,911
Ontario .....	810	—	—	—	163	26	24	11	1,007	37	810	—	189	45	5,921
Manitoba .....															
Saskatchewan .....															
Alberta .....															
British Columbia .....															
Totals .....	2,627	2	55	12	583	129	226	45	3,491	188	2,629	67	712	271	20,636

See footnotes following Table 3 A.

**TABLE 3 A. Production and Related Workers,<sup>4</sup> - Manufacturing Activity, by Months, 1962**

Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>2</sup>

Month	Establishments reporting monthly detail			
	Male		Female	
	Quarry	Mill	Quarry	Mill
	number			
January .....	246	2,146	—	2
February .....	243	2,156	—	2
March .....	257	2,194	—	2
April .....	283	2,185	—	2
May .....	298	2,314	—	2
June .....	310	2,457	—	2
July .....	317	2,556	—	2
August .....	320	2,543	—	2
September .....	315	2,496	—	2
October .....	303	2,430	—	2
November .....	300	2,347	—	2
December .....	276	2,209	—	2
Monthly averages .....	290	2,337	—	2

<sup>1</sup> See Table 2 and Explanatory Notes concerning manufacturing and non-manufacturing activities.

<sup>2</sup> See Explanatory Notes.

<sup>3</sup> 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.

<sup>4</sup> Conceptually identical to previous years. See Explanatory Notes.

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

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

<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup> 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.

<sup>10</sup> 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.

<sup>11</sup> 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 Concept<sup>1</sup>

Description	Quantity	Cost
	ton	\$'000
1. Materials used:		
Limestone, purchased .....	943,982	927
Gypsum .....	314,935	2,035
Iron oxide .....	38,465	358
Silica sand .....	115,257	265
Shale .....	20,416	52
All other materials and components used .....	...	176
2. Containers and other packaging materials and supplies used .....		3,565
3. Operating, maintenance and repair supplies used (excluding fuel) .....		8,440
4. Amount paid out to others for work done on materials owned by establishments .....		403
<b>Total .....</b>		<b>16,221</b>

<sup>1</sup> See Explanatory Notes.

**TABLE 5. Fuel and Electricity Used<sup>1</sup> in Manufacturing Activity,<sup>2</sup> 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>3</sup>

Description	Quantity	Cost
		\$'000
Bituminous coal:		
(a) From Canadian mines ..... ton	460,352	4,317
(b) Imported ..... "	173,240	1,826
Sub-bituminous coal (from Alberta mines only) .....	—	—
Anthracite coal .....	—	—
Lignite coal .....	—	—
Coke .....	—	—
Gasoline (including gasoline used in cars and trucks) ..... Imp. gal.	227,175	61
Fuel oil including kerosene or coal oil ..... "	36,407,711	2,591
Wood .....	—	—
Gas:		
(a) Liquefied petroleum gases ..... Imp. gal.	27,862	8
(b) Other manufactured gas .....	—	—
(c) Natural gas ..... M cu. ft.	14,625,108	4,061
Other fuel .....	—	—
Electricity purchased ..... kwh.	784,316,014	4,855
Steam purchased .....	...	—
<b>Total fuel and electricity used .....</b>	<b>...</b>	<b>17,719</b>

<sup>1</sup> Does not include fuel and electricity produced for own use.

<sup>2</sup> 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.

<sup>3</sup> See Explanatory Notes.

**TABLE 6. Shipments of Goods of Own Manufacture, 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>1</sup>

Description	Quantity ton	Value \$'000
<b>1. Products:</b>		
Portland cement, all types .....	6,692,570	109,683
Masonry cement .....	180,534	3,453
Portland-pozzolana cement .....	...	16
Limestone .....	349,543	324
Value of containers used, not included in above .....	...	3,581
All other products .....		—
<b>2. Amount received in payment for work done on materials and products owned by others .....</b>		—
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above .....		(351)
Net adjustment for establishments receiving progress payments <sup>2</sup> .....		
<b>Total adjusted value of shipments and work done .....</b>		<b>116,706</b>

<sup>1</sup> See Explanatory Notes.

<sup>2</sup> See footnote 1, Table 7.

**TABLE 7. Industry Inventories, 1962<sup>1</sup>**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>2</sup>

Province	Manufacturing				Non-manufacturing	Total inventories
	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total manufacturing	Products or materials purchased for resale	
book value \$'000						
Opening:						
Newfoundland .....	5,369	526	1,597	7,492	—	7,492
New Brunswick .....						
Quebec .....						
Ontario .....	3,932	706	1,798	6,436	—	6,436
Manitoba .....						
Saskatchewan .....						
Alberta .....	4,360	1,815	1,854	8,028	18	8,046
British Columbia .....						
Totals <sup>4</sup> .....	13,661	3,046	5,249	21,956	18	21,974
Closing:						
Newfoundland .....	5,247	814	1,675	7,736	—	7,736
New Brunswick .....						
Quebec .....						
Ontario .....	3,757	679	2,049	6,485	—	6,485
Manitoba .....						
Saskatchewan .....						
Alberta .....	3,764	2,193	1,742	7,699	12	7,711
British Columbia .....						
Totals <sup>4</sup> .....	12,769	3,686	5,465	21,920	12	21,932

<sup>1</sup> 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.

<sup>2</sup> See Explanatory Notes.

<sup>3</sup> 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.

<sup>4</sup> Figures may not add due to rounding.

TABLE 8. Producers' Shipments<sup>1</sup> of Cement, by Provinces, 1960-62

Provinces	1960		1961		1962	
	Tons	Value	Tons	Value	Tons	Value
		\$		\$		\$
Newfoundland .....	93,160	1,688,664	86,549	1,789,980	96,916	1,985,524
New Brunswick .....	163,245	2,546,622	170,953	2,754,052	169,823	2,774,908
Quebec .....	1,875,997	28,315,159	2,029,159	31,412,617	2,242,591	33,330,630
Ontario .....	2,007,044	30,699,800	2,226,923	35,671,569	2,510,783	38,704,090
Manitoba .....	429,788	8,105,802	395,134	7,768,334	432,079	8,715,034
Saskatchewan .....	169,282	3,997,809	201,950	4,985,021	230,072	5,830,227
Alberta .....	663,856	11,474,865	677,914	12,420,025	799,030	14,780,423
British Columbia .....	384,853	6,432,752	417,366	7,122,046	397,435	7,112,890
Canada .....	5,787,225	93,261,473	6,205,948 <sup>2</sup>	103,923,644	6,878,729 <sup>2</sup>	113,233,726

<sup>1</sup> Does not include the value of containers. Includes amounts used by the producers.

<sup>2</sup> Includes 165,512 tons of masonry cement in 1961, and 181,427 tons in 1962.

TABLE 9. Production, Imports and Exports of Cement, 1961 and 1962

	1961		1962	
	Tons	Value	Tons	Value
		\$		\$
Output .....	6,114,194	...	6,928,668	...
Shipments (sold or used by producers) .....	6,205,948	103,923,644	6,878,729	113,233,726
Stocks on hand December 31 .....	620,903	...	690,420	...
Imports:				
Portland cement .....	1,381	36,965	2,973	48,383
Portland cement clinker (white) .....	19,803	388,770	16,667	329,955
Portland cement (white) .....	16,094	500,347	15,004	476,572
Cement n.o.p. ....	11,742	383,702	8,548	384,117
Exports:				
Portland cement .....	249,377	3,866,233	219,164	3,464,211
Apparent consumption <sup>1</sup> .....	5,957,952	...	6,662,538	...

<sup>1</sup> Imports of Standard Portland cement plus producers' shipments, less exports.

TABLE 10. Producers' Shipments and Apparent Consumption of Cement, 1953-62

Year	Shipments (sold or used)		Imports	Exports	Apparent consumption <sup>1</sup>
	Tons	Value	Tons	Tons	Tons
		\$			
1953 .....	3,891,708	58,842,022	434,487	2,577	4,323,618
1954 .....	3,926,559	59,035,644	401,135	21,638	4,306,056
1955 .....	4,404,480	65,650,025	517,890	168,907	4,753,463
1956 .....	5,021,683	75,233,021	677,616 <sup>2</sup>	124,561	5,574,738
1957 .....	6,049,098	93,167,477	92,380	338,315	5,803,163
1958 .....	6,153,421	96,414,142	41,555	141,250	6,053,726
1959 .....	6,284,486	95,147,798	29,256	303,126	6,010,616
1960 .....	5,787,225	93,261,473	22,478	181,117	5,628,586
1961 .....	6,205,948	103,923,644	1,381	249,377	5,957,952
1962 .....	6,878,729	113,233,726	2,973	219,164	6,662,538

<sup>1</sup> Shipments plus imports less exports.

<sup>2</sup> Includes imported clinker, other than white.

TABLE 11. Producers' Shipments<sup>1</sup> of Cement, by Months, 1961 and 1962

Month	1961	1962	Month	1961	1962
	tons			tons	
January .....	191,375	199,127	August .....	801,085	881,220
February .....	202,144	201,360	September .....	713,742	747,394
March .....	291,953	328,591	October .....	706,922	789,066
April .....	369,489	437,613	November .....	527,435	567,027
May .....	635,762	704,510	December .....	298,396	402,559
June .....	747,350	824,728	Totals .....	6,205,948	6,878,729
July .....	720,295	795,534			

<sup>1</sup> Includes cement used at producers' own plants.

TABLE 12. Materials Used in Cement Plants, 1953-62

Year	Cost of purchased portion of materials listed, and other	Shale	Limestone	Gypsum	Sand	Clay	Iron oxides <sup>1</sup>
	\$	tons					
1953 .....	2,029,172	249,209	5,330,778	199,743	58,548	571,069	20,703
1954 .....	2,130,976	277,085	5,566,198	210,373	69,870	589,219	17,177
1955 .....	2,563,496	71,599	6,033,619	219,461	91,407	798,694	23,743
1956 .....	3,062,921	250,641	7,152,693	234,545	121,616	822,499	33,043
1957 .....	4,894,511	397,907	8,741,863	287,786	101,442	990,526	71,023
1958 .....	4,698,075	433,633	8,473,596	293,514	185,522	1,014,063	31,148
1959 .....	3,757,282	382,975	8,175,733	278,298	227,216	930,829	29,920
1960 .....	2,541,967	259,121	7,965,872	262,002	242,139	886,839	28,556
1961 .....	3,140,669	265,206	8,145,376	297,785	207,118	909,227	31,140
1962 .....	3,564,744	294,973	9,294,196	326,674	219,193	1,047,731	38,465

<sup>1</sup> Produced from iron pyrites by the chemical industry.

Note: Quantities include own raw materials and purchased materials.

TABLE 13. Coal Used in Cement Plants, 1953-62

Year	Canadian		Foreign	
	Tons	Value	Tons	Value
		\$		\$
1953 .....	363,054	3,553,974	353,450	3,485,822
1954 .....	380,317	..	341,299	..
1955 .....	501,588	..	325,352	..
1956 .....	581,885	6,183,015	375,043	3,740,509
1957 .....	606,273	6,824,171	544,158	5,716,043
1958 .....	521,552	5,804,183	548,293	5,766,789
1959 .....	708,425	7,054,268	247,733	2,554,145
1960 .....	535,847	5,025,684	241,709	2,507,135
1961 .....	306,296	2,923,320	288,542	3,011,847
1962 .....	460,352	4,316,508	173,240	1,825,986



TABLE 14. Number and Capacity of Kilns in Cement Plants, 1953-62

Year	Total kilns		Kilns in use during the year	
	Number	Total capacity-tons per year	Number	Total capacity-tons per year
1953 .....	27	4,076,685	26	4,003,320
1954 .....	28	4,385,110	28	4,385,110
1955 .....	29	4,528,920	29	4,528,920
1956 .....	37	6,142,950	35	5,811,895
1957 .....	39	6,788,270	39	6,788,270
1958 .....	42	7,594,555	42	7,558,055
1959 .....	42	8,135,120	39	7,827,070
1960 .....	45	8,753,795	39	7,730,700
1961 .....	46	9,402,278	40	7,772,328
1962 .....	44	9,975,050	39	8,485,750

TABLE 15. World Production of Hydraulic Cement, by Countries  
(From the Annual Review published by the United States Bureau of Mines)<sup>a</sup>

Country	1958	1959	1960	1961	1962
	thousand barrels				
North America:					
Canada (sold or used by producers) .....	32,729	33,427	30,782	33,010	36,587
Cuba .....	4,192	3,670	2,345 <sup>b</sup>	1,760	1,760
Dominican Republic .....	1,583	1,114	998	1,390	1,507
Guatemala .....	692	680	657	733	680
Haiti .....	211	223	281	258	299
Honduras .....	—	64	199	248	328
Jamaica .....	1,044	1,155	1,243	1,266	1,173
Mexico .....	14,887	15,884	18,112	17,795	19,654
Nicaragua .....	235	205	188	229	270
Panama .....	395	569	639	866	633
Salvador .....	510	487	504	440	381
Trinidad .....	879	1,055	1,036	575	973
United States .....	326,352	355,734	334,130	338,628	351,932
Totals .....	383,707	414,267	391,116	396,998	416,177
South America:					
Argentina .....	14,488	13,884	15,485	17,021	17,127
Bolivia .....	170	170	223	264	293
Brazil .....	22,222	22,521	26,232	27,610	29,739
Chile .....	4,257	4,902	4,855	5,101	6,725

See footnotes at end of table.

TABLE 15. World Production of Hydraulic Cement, by Countries - Continued

Country	1958	1959	1960	1961	1962
	thousand barrels				
South America—Concluded:					
Columbia .....	7,200	7,968	8,590	9,334	10,237
Ecuador .....	938	921	1,179	1,284	1,137
Paraguay .....	41	76	82	94	100
Peru .....	3,547	3,412	3,518	3,483	4,110
Uruguay .....	2,539	2,474	2,433	2,281	2,193
Venezuela .....	9,475	10,976	8,719	8,871	9,000
Totals .....	64,877	67,704	71,316	75,343	80,661
Europe:					
Albania .....	457	434	428	704	704
Austria .....	12,830	14,172	16,593	18,082	17,924
Belgium .....	23,787	26,027	25,728	27,874	28,073
Bulgaria .....	5,476	8,402	9,300	10,255	11,100
Czechoslovakia .....	24,098	27,558	29,616	31,328	34,300
Denmark .....	6,262	8,150	8,455	9,287	9,569
Finland .....	5,424	6,860	7,370	7,904	7,956
France .....	78,650	82,080	83,101	90,183	98,984
Germany:					
East .....	20,862	24,655	29,504	30,958	31,873
West <sup>a</sup> .....	115,407	135,817	146,025	159,153	167,649
Saar .....					
Greece .....	7,857	8,467	9,598	10,771	10,876
Hungary .....	7,634	8,402	9,211	9,393	10,161
Iceland .....	193	457	428	440	569
Ireland .....	3,055	3,682	4,368	4,362	4,456
Italy .....	75,185	84,443	93,895	105,721	118,274
Luxembourg .....	1,149	1,126	1,231	1,354	1,350
Netherlands .....	8,009	9,381	10,542	11,158	11,815
Norway .....	6,045	6,631	6,749	7,470	8,279
Poland .....	29,657	31,175	38,651	43,177	44,233
Portugal .....	6,004	6,045	7,024	7,294	8,214
Rumania .....	15,080	16,716	17,907	19,396	20,457
Spain .....	31,193	33,591	33,614	38,862	42,767
Sweden .....	14,717	16,535	16,452	17,660	17,907
Switzerland .....	12,811	15,731	17,801	21,114	21,847
U.S.S.R. ....	195,283	227,402	266,897	299,028	335,967
United Kingdom .....	69,486	74,992	79,137	84,291	83,587
Yugoslavia .....	11,533	13,017	14,060	13,691	14,764
Totals .....	787,944	891,948	983,685	1,080,910	1,163,655
Asia:					
Afghanistan .....	—	199	217	240	410
Burma .....	211	211	264	235	311
Ceylon .....	469	557	498	481	498
China .....	54,829	71,943	79,150	46,900	46,900

See footnote at end of table.

TABLE 15. World Production of Hydraulic Cement, by Countries - Concluded

Country	1958	1959	1960	1961	1962
	thousand barrels				
Asia — Concluded:					
Cyprus .....	487	487	516	557	575
Hong Kong .....	891	833	879	1,079	1,243
India .....	36,270	40,668	45,939	48,337	50,342
Indonesia .....	1,753	2,017	2,269	2,609	2,996
Iran .....	2,404	3,395	4,673	4,368	4,368
Iraq .....	3,923	3,876	3,624	5,494	5,400
Israel .....	4,181	4,579	4,726	4,960	5,594
Japan .....	87,862	101,247	132,147	144,448	168,787
Jordan .....	668	645	967	1,308	1,378
Korea:					
North .....	7,177	11,293	13,398	13,263	13,931
Republic of .....	1,736	2,099	2,527	3,067	4,632
Lebanon .....	2,973	4,356	5,007	5,125	5,048
Malaya .....	645	1,132	1,677	1,941	1,917
Pakistan .....	6,391	5,875	6,796	7,288	8,179
Philippines .....	3,764	4,263	4,661	5,975	5,635
Saudi Arabia .....	16,019	440	528	616	891
Syrian Arab Republic .....	2,269	2,621	2,867	3,166	3,559
Taiwan .....	5,951	6,256	6,936	8,824	10,970
Thailand .....	2,674	2,990	3,084	4,673	5,646
Turkey .....	8,895	10,167	11,949	11,891	13,597
Viet-Nam, North .....	1,771	2,234	2,392	2,685	2,709
Totals .....	253,913	284,383	337,691	329,530	365,516
Africa:					
Algeria .....	4,937	5,611	6,227	6,285	3,811
Angola .....	973	909	944	921	991
Cameroon, Republic of .....	64	64 <sup>3</sup>	—	—	—
Canary Islands .....	35	—	—	—	—
Cape Verde Islands .....	—	53	23	41	40
Congo, Republic of the (formerly Belgian) (including Ruanda-Urundi) .....	2,287	2,035	1,175	821	950
Ethiopia .....	188	147	164	176	240
Kenya .....	1,272	1,841	2,070	1,935	2,029
Morocco:					
Northern zone .....	2,392	2,943	3,401	3,694	4,093
Southern zone .....					
Mozambique .....	1,055	1,249	1,302	1,243	1,050
Nigeria .....	663	721	985	2,134	2,492
Rhodesia and Nyasaland, Federation of:					
Northern Rhodesia .....	4,667	797	745	715	704
Southern Rhodesia .....		2,466	2,597	1,636	1,466
Nyasaland .....		205	176	217	176
Senegal .....	874	1,003	985	1,067	1,073
South Africa, Republic of .....	15,960	15,520	15,860	15,233	15,591
Sudan .....	522	586	709	487	498
Tunisia .....	2,023	2,592	2,375	2,105	2,128
Uganda .....	610	481	422	369	328
United Arab Republic: Egypt region .....	8,871	10,460	12,002	12,553	13,562
Totals .....	47,393	49,703	52,162	51,632	51,222
Oceania:					
Australia .....	14,418	15,333	16,364	16,757	17,197
New Zealand .....	3,289	3,295	3,618	3,817	3,700
Totals .....	17,707	18,628	19,982	20,574	20,897
World totals (estimate) <sup>1</sup> .....	1,555,541	1,726,233	1,855,952	1,954,967	2,098,128

<sup>1</sup> This table incorporates a number of revisions of data published in previous cement chapters.<sup>2</sup> Estimate.<sup>3</sup> Revised data: Excludes clinker.

List of Establishments, 1962

Name of firm	Head offices address	Location of plant
<b>Newfoundland:</b>		
North Star Cement Co. Ltd. ....	Corner Brook .....	Corner Brook East
<b>New Brunswick:</b>		
Canada Cement Company Limited .....	Box 490, Station B, Montreal, Quebec .....	Havelock
<b>Quebec:</b>		
Canada Cement Company Limited .....	Box 490, Station B, Montreal .....	Hull Montréal Est
Ciment Québec Inc. ....	St. Basile, Cté Portneuf .....	St. Basile
Miron, Compagne Ltée .....	2201 Jarry Est, Ville St. Michel .....	Ville St. Michel
St. Lawrence Cement Co. ....	Blvd. St. Anne, Villeneuve .....	Villeneuve
<b>Ontario:</b>		
Canada Cement Company Limited .....	Box 490, Station B, Montreal, Quebec .....	Woodstock Belleville Port Colborne
Lake Ontario Portland Cement Company Limited .....	2 Carlton St., Toronto 2 .....	Pictou
St. Lawrence Cement Co. ....	Box 520, Clarkson .....	Clarkson
St. Mary's Cement Co. Limited .....	2221 Yonge St., Toronto 7 .....	St. Mary's
<b>Manitoba:</b>		
Canada Cement Company Limited .....	Box 490, Station B, Montreal, Quebec .....	Fort Whyte
<b>Saskatchewan:</b>		
Saskatchewan Cement Co. Ltd. (Division of Inland Cement Co. Ltd.) .....	Box 2555, Edmonton, Alberta .....	Victoria Plains
<b>Alberta:</b>		
Canada Cement Company Limited .....	Box 490, Station B, Montreal, Quebec .....	Clover Bar Eshaw
Inland Cement Company Limited .....	Box 2555, Edmonton .....	Edmonton
<b>British Columbia:</b>		
British Columbia Cement Co. Limited .....	North Foot Columbia St., Vancouver 4 .....	Bamberton
Lafarge Cement of North America Ltd. ....	1051 Main St., Vancouver 4 .....	Richmond



## 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.<sup>1</sup>

(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.<sup>1</sup>

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.

<sup>1</sup> 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.<sup>2</sup> 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.<sup>3</sup>

(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.

<sup>2</sup> 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.

<sup>3</sup> 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 establishments<sup>4</sup> 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

<sup>4</sup> 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 factory 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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