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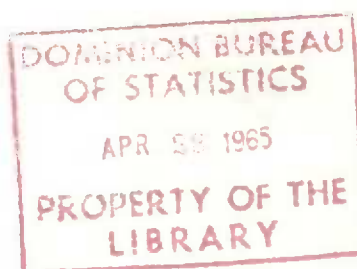
ANNUAL



# SUGAR REFINERIES

## 1962

ANNUAL CENSUS  
OF MANUFACTURES



*Published by Authority of*  
The Minister of Trade and Commerce

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Industry Division

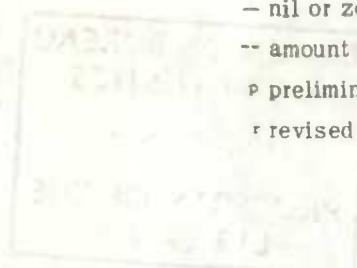
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### SYMBOLS

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.
- p preliminary figures.
- r revised figures.



## SUGAR REFINERIES

1962

Tabular presentations of statistical data in this publication show more details than were contained in previous catalogues for this industry. Basically the information has been expanded to reflect **total activity** of the establishments, whereas in previous years the data published represented the manufacturing operations. For explanation of definitions and tabular details, please refer to table footnotes and also the Explanatory Notes on the pages following Table 9.

Sugar refineries may refine imported raw sugar cane or process domestic grown sugar beets. For the reporting year 1962 there were eleven refineries in Canada. Six of these establishments processed beet sugars and the remaining five refineries produced cane sugars and the associated by-products thereof.

**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 .....	11	2,757	9,337	549	2,796	3,306	12,134	3,078	112,378	115,023	..
1958 .....	11	2,657	9,548	613	3,125	3,270	12,673	3,131	91,854	137,009	42,576
1959 .....	12	2,746	9,955	681	3,613	3,427	13,568	3,135	88,350	125,731	25,638
1960 .....	12	2,569	10,018	644	3,820	3,213	13,838	2,836	91,132	130,405	43,986
1961 .....	11	2,457	9,842	589	3,929	3,046	13,770	2,685	86,346	133,453	41,366

See footnotes following Table 3A.

**TABLE 1A. 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	Total activity							Total manufacturing				
		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>4</sup>		Total employees <sup>7</sup>		Total value added <sup>4</sup>
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1961</b>													
New Brunswick .....	1	2,457	5,409	9,842	2,685	87,040	133,453	40,672	...	...	3,151	14,286	40,687
Quebec .....	3												
Ontario .....	2												
Manitoba .....	1												
Alberta .....	3												
British Columbia .....	1												
<b>Totals .....</b>	<b>11</b>	<b>2,457</b>	<b>5,409</b>	<b>9,842</b>	<b>2,685</b>	<b>87,040</b>	<b>133,453</b>	<b>40,672</b>	<b>...</b>	<b>...</b>	<b>3,151</b>	<b>14,286</b>	<b>40,687</b>
<b>1962</b>													
New Brunswick .....	1	2,432	5,408	10,545	2,672	90,938	141,245	49,560	...	...	3,134	15,239	49,463
Quebec .....	3												
Ontario .....	2												
Manitoba .....	1												
Alberta .....	3												
British Columbia .....	1												
<b>Totals .....</b>	<b>11</b>	<b>2,432</b>	<b>5,408</b>	<b>10,545</b>	<b>2,672</b>	<b>90,938</b>	<b>141,245</b>	<b>49,560</b>	<b>...</b>	<b>...</b>	<b>3,134</b>	<b>15,239</b>	<b>49,463</b>

See Table 2 and footnotes following Table 3A.

TABLE 1 B. 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>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>1</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	
<b>1961</b>													
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	—	—	—	—	—	—	—	—	—	—	—	—	—
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup>	11	2,457	5,409	9,842	2,685	87,040	133,453	40,672	...	...	3,151	14,286	40,687
<b>Totals</b>	<b>11</b>	<b>2,457</b>	<b>5,409</b>	<b>9,842</b>	<b>2,685</b>	<b>87,040</b>	<b>133,453</b>	<b>40,672</b>	<b>...</b>	<b>...</b>	<b>3,151</b>	<b>14,286</b>	<b>40,687</b>
<b>1962</b>													
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	4	449	982	1,586	625	8,650	12,234	3,980	...	...	569	2,271	3,977
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup>	7	1,983	4,426	8,959	2,247	82,288	129,010	45,580	...	...	2,565	12,967	45,487
<b>Totals</b>	<b>11</b>	<b>2,432</b>	<b>5,408</b>	<b>10,545</b>	<b>2,872</b>	<b>90,938</b>	<b>141,245</b>	<b>49,560</b>	<b>...</b>	<b>...</b>	<b>3,134</b>	<b>15,239</b>	<b>49,463</b>

See footnotes following Table 3 A.

TABLE 1 C. Principal Statistics classified by Size Groups based on Manufacturing 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>1</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	
<b>1961</b>													
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	8	1,142	2,468	4,489	1,411	33,343	52,147	14,656	...	...	1,408	6,257	14,646
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup>	3	1,315	2,941	5,353	1,274	53,697	81,306	26,016	...	...	1,743	8,029	26,041
<b>Totals</b>	<b>11</b>	<b>2,457</b>	<b>5,409</b>	<b>9,842</b>	<b>2,685</b>	<b>87,040</b>	<b>133,453</b>	<b>40,672</b>	<b>...</b>	<b>...</b>	<b>3,151</b>	<b>14,286</b>	<b>40,687</b>
<b>1962</b>													
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	6	664	1,489	2,592	1,139	15,496	24,426	8,918	...	...	818	3,480	8,906
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup>	5	1,768	3,918	7,953	1,733	75,442	116,819	40,643	...	...	2,316	11,759	40,557
<b>Totals</b>	<b>11</b>	<b>2,432</b>	<b>5,408</b>	<b>10,545</b>	<b>2,872</b>	<b>90,938</b>	<b>141,245</b>	<b>49,560</b>	<b>...</b>	<b>...</b>	<b>3,134</b>	<b>15,239</b>	<b>49,463</b>

See footnotes following Table 3 A.

**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>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>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	
<b>1961</b>													
Under \$10,000.....	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
25,000 " 49,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 " 99,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 " 199,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 " 499,999 .....	8	1,142	2,468	4,489	1,411	33,343	52,147	14,656	...	...	1,408	6,257	14,646
500,000 " 999,999 .....													
1,000,000 " 4,999,999 .....													
Head offices, sales offices and auxiliary units <sup>10</sup> .....	3	1,315	2,941	5,353	1,274	53,697	81,306	26,016	...	...	1,743	8,029	26,041
<b>Totals .....</b>	<b>11</b>	<b>2,457</b>	<b>5,409</b>	<b>9,842</b>	<b>2,685</b>	<b>87,040</b>	<b>133,453</b>	<b>40,672</b>	<b>...</b>	<b>...</b>	<b>3,151</b>	<b>14,286</b>	<b>40,687</b>
<b>1962</b>													
Under \$10,000.....	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
25,000 " 49,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 " 99,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 " 199,999 .....	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 " 499,999 .....	8	664	1,489	2,592	1,139	15,498	24,426	8,918	...	...	818	3,480	8,906
500,000 " 999,999 .....													
1,000,000 " 4,999,999 .....													
Head offices, sales offices and auxiliary units <sup>10</sup> .....	5	1,768	3,918	7,953	1,733	75,442	116,819	40,643	...	...	2,318	11,759	40,557
<b>Totals .....</b>	<b>11</b>	<b>2,432</b>	<b>5,408</b>	<b>10,545</b>	<b>2,872</b>	<b>90,938</b>	<b>141,245</b>	<b>49,560</b>	<b>...</b>	<b>...</b>	<b>3,134</b>	<b>15,239</b>	<b>49,463</b>

See footnotes following Table 3 A.

**TABLE 1 E. Principal Statistics classified by Size Groups based on Total Employed, 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>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	
<b>1961</b>													
Under 5 employees.....	-	-	-	-	-	-	-	-	-	-	-	-	-
5- 14 employees .....	-	-	-	-	-	-	-	-	-	-	-	-	-
15- 49 " .....	-	-	-	-	-	-	-	-	-	-	-	-	-
50- 99 " .....	-	-	-	-	-	-	-	-	-	-	-	-	-
100-199 " .....	7	820	1,802	3,023	1,176	25,001	38,463	10,477	...	...	1,018	4,172	10,481
200-499 " .....													
500 employees and over.....													
Head offices, sales offices and auxiliary units <sup>10</sup> .....	4	1,637	3,607	6,819	1,509	62,039	94,990	30,195	...	...	2,133	10,114	30,206
<b>Totals .....</b>	<b>11</b>	<b>2,457</b>	<b>5,409</b>	<b>9,842</b>	<b>2,685</b>	<b>87,040</b>	<b>133,453</b>	<b>40,672</b>	<b>...</b>	<b>...</b>	<b>3,151</b>	<b>14,286</b>	<b>40,687</b>
<b>1962</b>													
Under 5 employees.....	-	-	-	-	-	-	-	-	-	-	-	-	-
5- 14 employees .....	-	-	-	-	-	-	-	-	-	-	-	-	-
15- 49 " .....	-	-	-	-	-	-	-	-	-	-	-	-	-
50- 99 " .....	-	-	-	-	-	-	-	-	-	-	-	-	-
100-199 " .....	7	811	1,813	3,253	1,354	25,109	40,461	15,124	...	...	1,005	4,386	15,108
200-499 " .....													
500 employees and over.....													
Head offices, sales offices and auxiliary units <sup>10</sup> .....	4	1,621	3,595	7,292	1,518	65,829	100,784	34,436	...	...	2,129	10,853	34,355
<b>Totals .....</b>	<b>11</b>	<b>2,432</b>	<b>5,408</b>	<b>10,545</b>	<b>2,872</b>	<b>90,938</b>	<b>141,245</b>	<b>49,560</b>	<b>...</b>	<b>...</b>	<b>3,134</b>	<b>15,239</b>	<b>49,463</b>

See footnotes following Table 3 A.



**TABLE 1F. 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>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	Withdrawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1961</b>													
Individual ownerships .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Partnerships .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Incorporated companies .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Cooperatives .....	11	2,457	5,409	9,842	2,685	87,040	133,453	40,672	...	...	3,151	14,286	40,687
Head offices, sales offices and auxiliary units <sup>10</sup> .....	11	2,457	5,409	9,842	2,685	87,040	133,453	40,672	...	...	3,151	14,286	40,687
<b>Totals</b> .....	<b>11</b>	<b>2,457</b>	<b>5,409</b>	<b>9,842</b>	<b>2,685</b>	<b>87,040</b>	<b>133,453</b>	<b>40,672</b>	<b>...</b>	<b>...</b>	<b>3,151</b>	<b>14,286</b>	<b>40,687</b>
<b>1962</b>													
Individual ownerships .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Partnerships .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Incorporated companies .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Cooperatives .....	11	2,432	5,408	10,545	2,872	90,938	141,245	49,560	...	...	3,134	15,239	49,463
Head offices, sales offices and auxiliary units <sup>10</sup> .....	11	2,432	5,408	10,545	2,872	90,938	141,245	49,560	...	...	3,134	15,239	49,463
<b>Totals</b> .....	<b>11</b>	<b>2,432</b>	<b>5,408</b>	<b>10,545</b>	<b>2,872</b>	<b>90,938</b>	<b>141,245</b>	<b>49,560</b>	<b>...</b>	<b>...</b>	<b>3,134</b>	<b>15,239</b>	<b>49,463</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 .....	133,453	141,245
Add: Closing inventory—Goods in process .....	803	401
Finished goods .....	17,047	13,745
Deduct: Opening inventory—Goods in process .....	808	804
Finished goods .....	20,098	11,218
Gross output—Manufacturing activity .....	130,397	143,369
Deduct: Cost of materials and supplies used in manufacturing activity .....	87,040	90,938
Cost of fuel and electricity used .....	2,685	2,872
Value added—Manufacturing activity .....	40,672	49,560
<b>Non-manufacturing activities:</b>		
Value of shipments—Goods not of own manufacture .....	..	3,535
Add: All other revenue .....	..	20
Closing inventory—Goods purchased for resale .....	266	1,240
Deduct: Purchases of goods for resale as such .....	..	4,494
Opening inventory—Goods not of own manufacture .....	97	266
Cost of all other materials and supplies used .....	..	133
Value added—Non-manufacturing activities .....	15	(98)
<b>Total value added</b> .....	<b>40,687</b>	<b>49,463</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>6,*</sup>		Sales, and distribution <sup>8</sup>		Total employees <sup>7,*</sup>		Production and related workers		Adminis- trative and office	Sales, and distri- bution	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																
New Brunswick .....	}	2,185	272	..	..	..	..	..	2,735	416	9,842	..	..	..	14,286	
Quebec .....																
Ontario .....																
Manitoba .....																
Alberta .....																
British Columbia .....																
Totals .....	2,185	272	..	..	..	..	..	..	2,735	416	9,842	..	..	..	14,286	
1962																
New Brunswick .....	}	2,162	270	-	1	428	124	131	18	2,721	413	10,545	2	3,936	756	15,239
Quebec .....																
Ontario .....																
Manitoba .....																
Alberta .....																
British Columbia .....																
Totals .....	2,162	270	-	1	428	124	131	18	2,721	413	10,545	2	3,936	756	15,239	

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
	number	
January .....	1,775	273
February .....	1,726	258
March .....	1,677	238
April .....	1,799	227
May .....	1,873	258
June .....	1,948	265
July .....	1,889	260
August .....	1,958	262
September .....	2,704	311
October .....	3,330	319
November .....	3,096	325
December .....	2,169	230
Monthly averages .....	2,162	270

<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.

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
		\$'000
1. Materials used:		
Raw cane sugar .....	lb. 1,615,405,096	67,712
Sugar beets .....	ton 1,148,119	13,558
Starches including corn, wheat, etc. ....	lb. 2,435,700	198
Boneblack .....	" 931,099	96
Infusorial earth .....	" 4,186,747	189
Activated carbon .....	" 275,635	37
Lime .....	" 4,971,317	49
Limestone .....	ton 52,417	245
Sulphur .....	lb. 337,296	7
Sulphuric acid .....	" 485,481	9
Hydrochloric and muriatic acid .....	" 351,642	17
Phosphoric acid .....	" 310,251	24
Soda ash .....	" 315,200	11
Filtering materials, n.e.s. ....	...	38
All other materials and components used .....	...	109
2. Containers and other packaging materials and supplies used .....		6,363
3. Operating, maintenance and repair supplies used (excluding fuel) .....		2,279
4. Amount paid out to others for work done on materials owned by establishments .....		-
<b>Total .....</b>		<b>90,936</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 13,262	158
(b) Imported .....	" 30,000	322
Sub-bituminous coal (from Alberta mines only) .....	" 10,103	42
Anthracite coal .....	-	-
Lignite coal .....	-	-
Coke .....	ton 4,215	93
Gasoline (including gasoline used in cars and trucks) .....	Imp. gal. 158,221	55
Fuel oil including kerosene or coal oil .....	" 17,788,468	1,107
Wood .....	cord 5	-
Gas:		
(a) Liquefied petroleum gases .....	Imp. gal. 32,439	11
(b) Other manufactured gas .....	-	-
(c) Natural gas .....	M cu.ft. 2,484,030	828
Other fuel .....	-	-
Electricity purchased .....	kwh. 24,181,714	255
Steam purchased .....	...	-
<b>Total fuel and electricity used .....</b>	<b>...</b>	<b>2,872</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	Value
	lbs.	\$'000
<b>1. Products:</b>		
Sugar:		
Made from cane .....	1,490,978,757	111,115
Made from beets .....	284,235,968	20,791
<b>Total sugar</b> .....	<b>1,775,214,725</b>	<b>131,907</b>
Granulated .....	1,520,423,241	111,466
Yellow or brown .....	147,019,556	11,098
Pulverized (no starch added) .....	93,939,202	7,897
Icing (starch added) .....		
Loaf .....	13,832,726	1,445
Molasses:		
Made from cane .....	112,604,000	1,462
Made from beets .....		
Syrups, excluding molasses .....	...	7,876
Beet pulp, wet and dried .....		
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 .....		(-)
Net adjustment for establishments receiving progress payments <sup>1</sup> .....		-
<b>Total adjusted value of shipments and work done</b> .....		<b>141,245</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: <sup>3</sup>						
New Brunswick .....	16,816	804	11,218	28,838	266	29,104
Quebec .....						
Ontario .....						
Manitoba .....						
Alberta .....						
British Columbia .....						
Totals <sup>4</sup> .....	16,816	804	11,218	28,838	266	29,104
Closing:						
New Brunswick .....	18,679	401	13,745	32,825	1,240	34,065
Quebec .....						
Ontario .....						
Manitoba .....						
Alberta .....						
British Columbia .....						
Totals <sup>4</sup> .....	18,679	401	13,745	32,825	1,240	34,065

<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. Shipments of Goods of Own Manufacture - All Industries

Note: Not applicable - See Table 6. See also production data and other analysis in Tables 8A to 8F.

A. Quantity of Sugar Produced, by Kind, 1947<sup>1</sup>- 62

Year	Sugar produced					
	Total	granulated	Yellow and brown	Pulverized (no starch added)	Icing (starch added)	Loaf
	thousand pounds					
1947 .....	1,084,710	911,755	118,125	2,245	38,705	13,880
1948 .....	1,358,139	1,146,985	142,339	2,176	54,296	12,433
1949 .....	1,385,912	1,181,963	128,477	5,308	58,153	12,011
1950 .....	1,527,950	1,323,011	131,106	4,278	58,046	11,509
1951 .....	1,310,437	1,113,970	125,937	3,561	56,036	10,933
1952 .....	1,421,122	1,211,115	125,176	4,938	67,798	12,095
1953 .....	1,349,467	1,140,409	125,029	5,298	66,676	12,055
1954 .....	1,440,651	1,220,053	131,437	7,546	69,628	11,887
1955 .....	1,578,132	1,354,417	131,811	6,046	74,100	11,758
1956 .....	1,552,637	1,328,921	132,067	8,248	70,718	12,683
1957 .....	1,533,249	1,312,035	128,211	8,726	71,688	12,589
1958 .....	1,644,568	1,417,525	130,445	<sup>2</sup>	83,413 <sup>3</sup>	13,185
1959 .....	1,628,730	1,385,045	139,162	<sup>2</sup>	91,458 <sup>3</sup>	13,065
1960 .....	1,734,701	1,480,875	144,780	<sup>2</sup>	94,283 <sup>3</sup>	14,763
1961 .....	1,635,687	1,395,870	134,986	<sup>2</sup>	92,667 <sup>3</sup>	12,164
1962 .....	1,788,529	1,528,419	153,451	<sup>2</sup>	93,191 <sup>3</sup>	13,468

<sup>1</sup> For data prior to 1947, see 1961 issue of Sugar Refineries, DBS Catalogue No. 32-222.

<sup>2</sup> Confidential, included in "Icing (starch added)" column.

<sup>3</sup> Includes "Pulverized" total.

B. Production of Sugar and Molasses from Cane and Beet, 1947<sup>1</sup>- 62

Year	Sugar produced			Molasses produced		
	Total	From cane	From beet	Total	From cane	From beet
	thousand pounds					
1947 .....	1,084,710	928,447	156,263	65,406	18,526	46,880
1948 .....	1,358,139	1,182,498	175,641	67,704	23,552	44,152
1949 .....	1,385,912	1,161,058	224,854	90,832	21,678	69,154
1950 .....	1,527,950	1,227,765	300,185	94,794	19,626	75,168
1951 .....	1,310,437	1,062,684	247,753	90,220	14,794	75,426
1952 .....	1,421,122	1,122,877	298,245	92,202	19,710	72,492
1953 .....	1,349,467	1,103,991	245,476	81,304	14,998	66,306
1954 .....	1,440,551	1,208,476	232,075	82,930	20,162	62,768
1955 .....	1,578,132	1,303,615	274,517	80,582	18,824	61,758
1956 .....	1,552,637	1,306,015	246,622	82,494	15,832	66,662
1957 .....	1,533,249	1,271,565	261,684	100,962	<sup>2</sup>	<sup>2</sup>
1958 .....	1,644,568	1,304,689	339,879	109,352	<sup>2</sup>	<sup>2</sup>
1959 .....	1,628,730	1,357,413	271,317	135,952	<sup>2</sup>	<sup>2</sup>
1960 .....	1,734,701	1,426,371	308,330	113,580	<sup>2</sup>	<sup>2</sup>
1961 .....	1,635,688	1,377,851	257,837	105,916	<sup>2</sup>	<sup>2</sup>
1962 .....	1,788,529	1,502,500	286,029	116,286	<sup>2</sup>	<sup>2</sup>

<sup>1</sup> For data prior to 1947, see 1961 issue of Sugar Refineries, DBS Catalogue No. 32-222.

<sup>2</sup> Confidential; withheld in accordance with the restrictive clauses of the Statistics Act.



TABLE 8. Shipments of Goods of Own Manufacture - All Industries - Continued  
C. Production of Sugar Beets and Beet Sugar, 1938-63

Year	Sugar beets					Refined beet sugar	
	Acres harvested	Total yield	Yield per acre	Total value	Average value per ton	Quantity produced	Percentage to total sugar produced
	No.	tons	tons	\$'000	\$	'000 lbs.	%
1938	45,000	498,000	11.04	3,286	6.60	143,014	13.7
1939	57,000	586,000	10.23	4,430	7.55	169,320	14.6
1940	78,000	825,000	10.65	5,612	6.80	213,602	18.5
1941	63,999	711,923	11.12	5,405	7.59	215,879	17.6
1942	62,381	715,524	11.47	6,053	8.46	189,067	23.6
1943	52,719	474,378	9.00	4,980	10.50	129,268	14.8
1944	55,021	566,294	10.29	6,283	11.09	165,319	16.2
1945	59,283	618,785	10.44	6,567	10.61	163,838	16.7
1946	66,619	735,850	11.05	9,196	12.50	205,780	21.4
1947	58,405	605,759	10.37	8,685	14.34	156,263	14.4
1948	60,065	629,206	10.48	9,202	14.62	175,641	12.9
1949	84,216	858,727	10.20	11,749	13.68	224,654	16.2
1950	101,496	1,115,854	10.99	18,299	16.40	300,185	19.6
1951	92,920	965,433	10.39	14,440	14.96	247,753	18.9
1952	92,588	1,022,884	11.05	15,493	15.15	298,245	20.9
1953	81,949	900,347	10.99	12,061	13.40	245,476	18.2
1954	90,453	1,003,869	11.10	12,107	12.06	232,075	16.1
1955	81,908	981,014	11.98	13,170	13.42	274,517	17.4
1956	78,786	892,872	11.33	15,470	17.33	246,622	15.9
1957	83,743	1,053,564	12.58	13,948	13.24	261,684	17.0
1958	97,800	1,324,870	13.55	19,177	14.47	339,679	20.6
1959	90,453	1,239,518	13.70	15,842	12.78	271,317	16.6
1960	86,128	1,098,673	12.76	15,778	14.36	308,329	17.8
1961	84,927	1,105,708	13.02	14,515	13.13	257,837	15.8
1962	84,677	1,105,704	13.06	..	..	286,029	17.5
1963	95,218	1,316,644	13.83	..	..	..	..

Source: Agriculture Division - DBS.

D. Refined Cane and Beet Sugar Used by Manufacturing Industries

Principal industries using sugar	1957	1958	1959	1960	1961
	thousand pounds				
Soft drink manufacturers	171,242	176,281	177,490	180,636	192,352
Fruit and vegetable canners and preservers	134,757	146,729	143,739	156,449	154,943
Confectionery manufacturers	125,164	132,028	120,225	129,327	132,377
Bakeries	118,160	119,893	112,240	114,272	111,966
Miscellaneous food industries	77,341	81,966	83,168	91,002	101,586
Biscuit manufacturers	58,145	58,308	57,186	58,824	58,899
Dairy factories	60,843	40,259	54,676	42,148	41,241
Breakfast cereal manufacturers	8,706	10,148	10,930	12,138	13,582
Process cheese manufacturers	4,883	7,289	7,411	8,919	9,549
Slaughtering and meat processors	3,887 <sup>1</sup>	5,916 <sup>1</sup>	6,701 <sup>1</sup>	6,134 <sup>1</sup>	7,986
Flour mills	4,764	6,211	6,626	6,421	6,068
Wineries	1,892	2,791	2,909	2,745	3,202
Other industries	12,296	12,173	12,143	12,246	11,942
Grand totals	782,060	799,994	795,664	821,261	845,693

<sup>1</sup> Estimated.

E. Refined Sugar: Stocks, Production, Imports, Exports and Consumption

Year	Stocks held by refiners January 1	Production	Imports	Exports	Stocks held by refiners December 31	Consumption <sup>1</sup>		Industrial consumption	Available for household and institutional consumption <sup>1</sup>
						Total	Per <sup>2</sup> capita		
thousand pounds						pounds	thousand pounds		
1939	255,074	1,156,587	7,990	1,804	248,461	1,169,386	103.79	333,397	835,989
1945	146,472	980,530	11,386	44,781	183,232	910,375	75.41	342,351	568,024
1954	294,032	1,440,551	3,362	628	281,241	1,456,076	95.25	648,410	807,666
1955	261,241	1,578,132	7,281	2,303	340,878	1,523,473	97.05	693,010	830,463
1956	340,878	1,552,637	5,026	1,261	322,861	1,574,419	97.91	724,514	849,905
1957	322,861	1,533,249	28,818	1,841	343,854	1,539,233	92.78	782,080 <sup>r</sup>	757,153
1958	343,854	1,644,568	7,975	1,495	378,088	1,616,814	94.83	799,994 <sup>r</sup>	816,820
1959	378,088	1,628,730	1,308	1,442	344,238	1,662,446	95.31	795,664 <sup>r</sup>	866,782
1960	344,238	1,734,701	598	7,635	409,939	1,661,963	93.29	821,261 <sup>r</sup>	840,702
1961	409,939	1,635,687	8,530	16,070	389,056	1,649,028	90.42	845,693	803,335
1962	369,058	1,768,529	2,385	22,909	411,584	1,745,479	93.99	..	..

<sup>1</sup> Wholesalers and retailers stocks not available.

<sup>2</sup> For data prior to 1954, see 1961 issue of Sugar Refineries, DBS catalogue No. 32-222.

TABLE 8. Shipments of Goods of Own Manufacture - All Industries - Concluded

F. Prices of Sugar at Montreal from Factory to Wholesaler for Specified Months  
(Compiled by the Prices Division)

	January	April	July	October
	dollars			
Sugar granulated, standard, per cwt.:				
1961 .....	7.25	7.20	7.30	6.85
1962 .....	6.55	7.00	7.20	7.30
Sugar, yellow, No. 2, per cwt.:				
1961 .....	6.90	6.95	7.05	6.85
1962 .....	6.55	7.00	7.20	7.30

TABLE 9. 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 .....	..	..	..	..	..	..	..	..	..
1961 .....	..	..	..	..	..	..	..	..	..
1962 .....	1,631	5,605	7,236	583	3,807	3,670	2,214	8,692	10,906

Source: Business Finance Division. - DBS.

List of Establishments, 1962

Name	Address
<b>New Brunswick:</b>	
Atlantic Sugar Refineries, Limited <sup>1</sup> .....	Saint John
<b>Quebec:</b>	
Canada & Dominion Sugar Company, Limited <sup>1</sup> .....	1410 Montmorency St., Montreal
St. Lawrence Sugar Refineries, Limited <sup>1</sup> .....	4026 Notre Dame St. E., Montreal
Quebec Sugar Refinery <sup>2</sup> .....	St. Hilaire East
<b>Ontario</b>	
Canada & Dominion Sugar Company, Limited <sup>2</sup> .....	Tecumseh Road, Chatham
Canada & Dominion Sugar Company, Limited <sup>1</sup> .....	95 Queen's Quay, Toronto
<b>Manitoba:</b>	
The Manitoba Sugar Company, Limited <sup>1</sup> .....	(Fort Garry) Winnipeg
<b>Alberta:</b>	
Canadian Sugar Factories, Limited <sup>2</sup> .....	Raymond
Canadian Sugar Factories, Limited <sup>2</sup> .....	Picture Butte
Canadian Sugar Factories, Limited <sup>2</sup> .....	Taber
<b>British Columbia:</b>	
The British Columbia Sugar Refining Company Limited <sup>1</sup> .....	Rogers Street, Vancouver

<sup>1</sup> Made cane sugar only.

<sup>2</sup> Made beet sugar only.



## 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>

<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.

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.



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).



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### (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.