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PAINT AND VARNISH MANUFACTURERS 1962

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PAINT AND VARNISH MANUFACTURERS

1962

Data presented in this report under the heading of Paint and Varnish Manufacturers reflect implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept which are being used by the Dominion Bureau of Statistics in its industry statistics compilations—see items "Standard Industrial Classification" and "Establishment" in the Explanatory Notes section of this report.

For statistical purposes the industry titled Paint and Varnish Manufacturers in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing paints, varnishes, lacquers, enamels and shellac. This industry also includes establishments primarily engaged in manufacturing products such as putty, filler, oil stains and thinners.

The combination of improvements in internal procedures with the introduction of the final stage of the Establishment Concept has produced changes which, for some industries, have required adjustments to the industry statistical data. (See Explanatory Notes section for further details.) In the case of the industry under review, changes affecting manufacturing activity were negligible.

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

Year	Estab- lish- ments	Employees						Cost of fuel and elec- tricity ⁴	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴
		Production and related workers ⁴		Administrative and office employees ³		Total ⁴					
		Number	Wages	Number	Salaries	Number	Salaries and wages				
	No.		\$'000		\$'000		\$'000				
1957	123	3,403	11,657	2,803	12,226	6,206	23,884	991	64,101	129,384	..
1958	127	3,376	12,108	2,754	12,716	6,130	24,823	953	69,393	141,724	73,359
1959	133	3,424	12,793	2,806	13,419	6,230	26,212	975	71,704	147,583	75,304
1960	134	3,301	13,104	2,805	14,320	6,106	27,424	1,017	73,540	147,138	72,584
1961	136	3,091	11,839	2,711	14,009	5,802	25,848	1,050	75,066	152,358	76,956

See footnotes following Table 3 A.

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

Year and province	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁴
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1961													
Newfoundland	4	93	201	274	20	1,356	2,845	1,475	—	—	150	543	1,528
Nova Scotia													
New Brunswick													
Quebec	39	959	1,839	3,427	256	21,415	45,332	23,732	11	11	2,849	12,340	24,616
Ontario	68	1,543	3,225	6,456	637	42,033	82,036	39,744	11	46	3,452	17,120	40,413
Manitoba	8	217	341	516	54	4,156	7,846	3,739	—	—	375	1,375	3,790
Alberta													
British Columbia	17	276	529	1,165	83	6,079	14,169	8,153	11	11	765	3,290	8,490
Totals	136	3,088	6,134	11,839	1,050	75,039	152,228	76,844	19	80	7,591	34,668	78,837
1962													
Newfoundland	4	84	216	308	24	1,400	3,054	1,838	—	—	144	619	1,859
Nova Scotia													
New Brunswick													
Quebec	41	895	1,715	3,278	237	21,903	45,697	23,876	11	11	2,612	11,747	24,926
Ontario	71	1,634	3,423	6,946	671	45,381	88,933	43,715	14	46	3,627	18,162	44,582
Manitoba	9	157	329	495	52	4,209	7,671	3,619	—	—	332	1,380	3,787
Saskatchewan													
Alberta	17	287	580	1,243	89	6,819	14,707	7,591	11	11	610	3,418	7,863
British Columbia													
Totals	142	3,057	6,263	12,270	1,073	79,713	160,462	80,640	21	83	7,525	35,326	83,017

See Table 2 and footnotes following Table 3 A.

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

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁶	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000			\$'000
1961													
Under \$10,000	5	1	...	...	1	16	33	17	4	10	3	2	18
\$ 10,000 to \$ 24,999	5	1	2	4	1	38	84	43	5	22	1	4	46
25,000 " 49,999	10	15	23	36	3	216	400	177	5	24	26	70	187
50,000 " 99,999	20	32	58	102	21	770	1,395	613	4	19	75	268	622
100,000 " 199,999	18	79	163	283	28	1,550	2,747	1,193	1	5	153	593	1,255
200,000 " 499,999	22	167	351	572	67	4,326	7,334	2,984	—	—	365	1,652	3,028
500,000 " 999,999	16	261	529	955	92	6,006	11,719	5,632	—	—	535	2,409	5,802
1,000,000 " 4,999,999	34	1,456	2,988	5,659	526	39,204	78,050	39,196	—	—	3,228	15,253	40,295
5,000,000 and over	6	1,076	2,021	4,227	311	22,914	50,466	26,989	—	—	2,132	9,333	27,271
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	1,073	5,086	312
Totals	136	3,088	6,134	11,839	1,050	75,039	152,228	76,844	19	80	7,591	34,668	78,837
1962													
Under \$10,000	8	—	—	—	2	22	45	22	6	17	3	2	23
\$ 10,000 to \$ 24,999	5	2	4	6	2	49	96	47	2	4	6	17	51
25,000 " 49,999	11	17	24	36	5	203	397	169	6	22	29	76	200
50,000 " 99,999	20	32	61	110	19	776	1,473	684	5	30	75	283	897
100,000 " 199,999	18	79	183	320	31	1,596	2,794	1,169	1	8	153	655	1,263
200,000 " 499,999	20	148	288	518	54	3,856	6,749	2,876	1	5	319	1,454	2,979
500,000 " 999,999	19	281	600	1,104	109	6,614	13,321	6,618	—	—	595	2,893	6,897
1,000,000 " 4,999,999	34	1,387	2,990	5,731	528	40,508	77,367	36,818	—	—	3,255	15,343	38,165
5,000,000 and over	7	1,111	2,114	4,446	324	26,089	58,219	32,216	—	—	2,213	9,758	32,394
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	877	4,845	348
Totals	142	3,057	6,263	12,270	1,073	79,713	160,462	80,640	21	83	7,525	35,328	83,017

See footnotes following Table 3A.

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

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁶	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1961													
Under \$10,000	10	1	—	—	4	105	165	52	7	25	8	16	59
\$ 10,000 to \$ 24,999	14	30	54	87	9	475	741	246	8	34	48	138	268
25,000 "	21	46	91	159	20	903	1,642	736	3	16	92	354	732
50,000 "	18	86	173	289	33	2,053	3,386	1,322	1	5	167	643	1,361
100,000 "	15	123	263	440	51	3,516	5,726	2,171	—	—	293	1,328	2,241
200,000 "	17	261	521	947	99	8,633	11,626	4,875	—	—	532	2,575	4,957
500,000 "	17	515	1,142	1,997	187	14,062	25,818	11,854	—	—	1,113	5,183	12,207
1,000,000 " 4,999,999	24	2,028	3,890	7,919	648	47,293	103,123	55,587	—	—	4,265	19,346	58,879
5,000,000 and over													
Head offices, sales offices and auxiliary units ¹⁰	...	...	...	...	...	...	...	...	...	...	1,073	5,085	312
Totals	136	3,088	6,134	11,839	1,050	75,039	152,228	76,844	19	80	7,591	34,668	78,837
1962													
Under \$10,000	11	—	—	—	2	51	100	48	7	20	5	12	49
\$ 10,000 to \$ 24,999	15	21	32	49	7	286	548	255	10	32	37	95	278
25,000 "	21	45	90	160	25	945	1,735	765	2	20	107	415	849
50,000 "	18	79	176	305	28	1,783	3,118	1,317	1	6	148	616	1,334
100,000 "	17	139	284	494	51	3,690	6,302	2,579	1	5	262	1,216	2,880
200,000 "	20	320	665	1,269	123	8,496	15,141	6,501	—	—	691	3,423	6,711
500,000 "	15	514	1,130	2,067	187	12,877	24,246	11,559	—	—	1,164	5,353	12,187
1,000,000 " 4,999,999	25	1,939	3,885	7,926	649	51,584	109,271	57,615	—	—	4,234	19,350	58,582
5,000,000 and over													
Head offices, sales offices and auxiliary units ¹⁰	...	...	...	...	...	...	...	...	...	...	877	4,845	348
Totals	142	3,057	6,263	12,270	1,073	79,713	160,462	80,640	21	83	7,525	35,326	83,017

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 Concept²

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Under \$10,000	9	1	--	--	1	50	101	44	7	25	6	10	45
\$ 10,000 to \$ 24,999	15	28	50	81	11	526	802	258	8	34	49	141	276
25,000 " 49,999	21	48	95	168	20	906	1,645	733	3	16	93	357	738
50,000 " 99,999	18	86	172	296	34	2,158	3,549	1,374	1	5	162	644	1,324
100,000 " 199,999	13	94	203	334	39	2,550	4,327	1,756	--	--	210	978	1,867
200,000 " 499,999	18	277	556	994	105	7,151	12,078	4,741	--	--	580	2,759	4,884
500,000 " 999,999	17	509	1,125	1,969	152	13,569	24,960	11,554	--	--	1,093	5,052	11,657
1,000,000 " 4,999,999	25	2,045	3,932	7,998	687	48,129	104,765	56,384	--	--	4,325	19,642	57,734
5,000,000 and over													
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	1,073	5,085	312
Totals	136	3,088	6,134	11,839	1,050	75,039	152,228	76,844	19	80	7,591	34,668	78,837
1962													
Under \$10,000	11	--	--	--	2	51	100	48	7	20	5	12	49
\$ 10,000 to \$ 24,999	14	19	28	42	7	251	489	232	10	32	33	83	248
25,000 " 49,999	21	41	81	144	21	890	1,654	751	2	20	92	348	763
50,000 " 99,999	18	82	181	315	29	1,780	3,119	1,315	1	6	151	624	1,336
100,000 " 199,999	17	133	273	469	54	3,594	6,040	2,431	1	5	258	1,204	2,565
200,000 " 499,999	21	329	684	1,306	125	8,685	15,543	8,689	--	--	711	3,507	6,940
500,000 " 999,999	13	443	981	1,775	155	10,867	20,100	9,732	--	--	942	4,350	9,936
1,000,000 " 4,999,999	27	2,010	4,035	8,218	680	53,794	113,417	59,441	--	--	4,456	20,352	60,832
5,000,000 and over													
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	877	4,845	348
Totals	142	3,057	6,283	12,270	1,073	79,713	160,462	80,640	21	83	7,525	35,326	83,017

See footnotes following Table 3 A.

TABLE 1 E. Principal Statistics classified by Size Groups based on Total Employed¹¹, 1961 and 1962

Basis: Revised Standard Industrial Classification and New Establishment Concept²

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Under 5 employees	34	33	59	109	22	1,087	1,908	807	15	64	70	245	831
5- 14 employees	33	133	270	463	49	3,434	5,982	2,516	4	16	259	1,108	2,487
15- 49 "	31	444	912	1,842	166	10,951	20,642	9,677	--	--	864	4,076	9,940
50- 99 "	20	611	1,359	2,564	246	18,796	36,389	17,407	--	--	1,453	7,386	18,215
100-199 "	12	791	1,513	2,835	257	17,858	36,840	19,448	--	--	1,740	7,433	19,801
200-499 "	6	1,076	2,021	4,227	311	22,914	50,466	26,989	--	--	2,132	9,333	27,271
500 employees and over													
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	1,073	5,085	312
Totals	136	3,088	6,134	11,839	1,050	75,039	152,228	76,844	19	80	7,591	34,668	78,837
1962													
Under 5 employees	44	46	63	149	29	1,331	2,502	1,159	20	77	98	332	1,193
5- 14 employees	27	134	278	492	40	3,070	5,226	2,142	1	6	251	1,100	2,163
15- 49 "	32	443	923	1,736	177	11,087	20,969	9,608	--	--	874	4,275	9,943
50- 99 "	17	492	1,111	2,048	201	15,496	30,410	15,148	--	--	1,197	5,887	15,964
100-199 "	15	824	1,743	3,337	304	22,866	45,491	22,762	--	--	1,692	8,669	23,316
200-499 "	7	1,118	2,125	4,508	323	25,862	55,864	29,821	--	--	2,336	10,218	30,090
500 employees and over													
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	877	4,845	348
Totals	142	3,057	6,283	12,270	1,073	79,713	160,462	80,640	21	83	7,525	35,326	83,017

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 Concept¹

Type of organization	Establishments	Manufacturing activity							Total activity				
		Production and related workers ²			Cost of fuel and electricity ³	Cost of materials and supplies used ⁴	Value of shipments of goods of own manufacture ⁴	Value added ⁴	Working owners and partners ⁵		Total employees ⁷		Total value added ⁸
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000							\$'000			\$'000
1961													
Individual ownerships	17	19	28	51	8	429	726	291	19	80	25	70	302
Partnerships	1												
Incorporated companies	118	3,069	6,106	11,788	1,042	74,609	151,501	76,553	—	—	6,493	29,513	78,222
Cooperatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	1,073	5,065	312
Totals	136	3,088	6,134	11,839	1,050	75,039	152,228	76,844	19	80	7,591	34,668	78,837
1962													
Individual ownerships	17	14	24	42	10	541	919	372	21	83	21	68	385
Partnerships	1												
Incorporated companies	124	3,043	6,238	12,227	1,064	79,171	159,544	80,267	—	—	6,627	30,413	82,284
Cooperatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	877	4,845	348
Totals	142	3,057	6,263	12,270	1,073	79,713	160,462	80,640	21	83	7,525	35,326	83,017

See footnotes following Table 3A.

TABLE 2. Industry Outputs, Inputs and Value Added, 1961 and 1962

Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Item	1961	1962
	\$'000	
Manufacturing activity:		
Value of shipments—Goods of own manufacture	152,228	160,462
Add: Closing inventory—Goods in process	2,048	2,240
Finished goods	16,264	17,031
Deduct: Opening inventory—Goods in process	1,951	2,121
Finished goods	15,656	(18,307)
Gross output—Manufacturing activity	152,933	161,426
Deduct: Cost of materials and supplies used in manufacturing activity	75,039	79,713
Cost of fuel and electricity used	1,050	(80,786)
Value added—Manufacturing activity	76,844	80,640
Non-manufacturing activities:		
Value of shipments—Goods not of own manufacture .....	..	11,405
Add: All other revenue .....	..	43
Closing inventory—Goods purchased for resale	2,592	2,773
Deduct: Purchases of goods for resale as such .....	..	8,375
Opening inventory—Goods not of own manufacture	2,617	2,778
Cost of all other materials and supplies used .....	..	(11,844)
Value added—Non-manufacturing activities	1,993	2,377
Total value added	78,837	83,017

See footnote following Table 3A.

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

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office ^{2,3}		Sales and distribution ⁴		Total employees ^{5,6}		Production and related workers		Adminis- trative and office	Sales, and distrib- ution	Total salaries and wages
	Manufacturing ⁷		Other ⁸												
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufacturing	Other			
1961	number										\$'000				
Newfoundland	75	18	..	..	..	..	..	..	110	40	274	..	..	..	543
Nova Scotia															
New Brunswick	851	108	..	..	..	..	..	..	2,302	547	3,427	..	..	..	12,340
Quebec	1,459	84	..	..	..	..	..	..	2,912	540	6,456	..	..	..	17,120
Ontario	180	30	..	..	..	..	..	..	296	69	497	..	..	..	1,345
Manitoba	243	40	..	..	..	..	..	..	624	151	1,184	..	..	..	3,320
Alberta															
British Columbia	2,808	280	..	..	..	..	..	..	6,244	1,347	11,839	..	..	..	34,668
Totals															
1962	number										\$'000				
Newfoundland	70	14	2	—	16	21	21	—	109	35	308	8	170	133	619
Nova Scotia															
New Brunswick	801	94	10	2	528	312	793	72	2,132	480	3,278	53	3,938	4,478	11,747
Quebec	1,555	79	6	—	786	420	718	63	3,065	562	6,946	21	6,454	4,741	18,162
Ontario	126	21	—	—	82	55	27	2	235	78	458	—	666	175	1,299
Manitoba	10	—	—	—	4	3	2	—	16	3	37	—	35	8	81
Saskatchewan															
Alberta	245	42	—	—	132	84	263	44	640	170	1,243	—	1,077	1,098	3,418
British Columbia	2,807	250	18	2	1,548	895	1,824	181	6,197	1,328	12,270	82	12,341	10,633	35,326
Totals															

See footnotes following Table 3 A.

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

Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Month	Establishments reporting monthly detail	
	Male	Female
	number	
January	2,488	222
February	2,586	247
March	2,681	251
April	2,774	261
May	2,998	270
June	2,918	267
July	2,892	258
August	2,831	233
September	2,686	247
October	2,573	240
November	2,491	211
December	2,458	201
Average for establishments reporting monthly detail (collected only for large establishments)	2,697	241
Average for small establishments (only annual averages collected)	110	9
Average for all establishments	2,807	250

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

² See Explanatory Notes.

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

⁴ Conceptually identical to previous years. See Explanatory Notes.

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

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

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

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

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

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

¹¹ Confidential data.

Note: Figures may not add due to rounding.

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

Description	Quantity	Cost
	lb.	\$'000
1. Materials used:		
Prime pigments:		
White:		
Antimony oxide.....	46,027	14
Basic carbonate white lead - Dry.....	808,313	138
In oil.....	121,822	24
Basic silicate white lead.....	804,026	166
Basic sulphate white lead.....	61,319	11
Lithopone (30% zinc sulphide).....	698,885	59
Titanium dioxide.....	36,586,830	9,150
Extended titanium dioxide pigments.....	21,869,760	2,513
Zinc oxide - Lead free.....	3,886,119	558
Leaded.....	254,427	40
Other white pigments.....	831,346	88
Black:		
Carbon black.....	388,198	133
Graphite.....	48,577	7
Other black pigments.....	183,019	44
Coloured:		
Chrome yellow and orange pigments.....	1,777,905	652
Cadmium yellow and orange pigments.....	15,756	20
Organic yellow and orange pigments.....	208,900	305
Other yellow and orange pigments.....	573,744	269
Chrome green pigments.....	604,437	279
Chromium oxide and hydrated green pigments.....	112,501	56
Phthalocyanine greens.....	95,888	324
Other green pigments.....	10,660	28
Iron blues.....	121,802	69
Phthalocyanine blues.....	70,380	250
Other blue pigments.....	99,376	137
Lithol reds.....	36,121	35
Toluidine reds.....	473,294	541
Para reds.....	100,112	77
Cadmium red and maroon pigments.....	80,576	204
Other red and maroon pigments.....	125,921	618
Iron oxides (see item immediately below).....	3,909,780	470
Ochres, siennas, umbers (not including item immediately above).....	299,061	56
Red lead, including orange mineral.....	1,410,816	204
Litharge.....	338,369	47
Metallic powders (aluminum, bronze, etc.).....	1,264,173	825
All other coloured pigments.....	269,558	123
Extender pigments:		
Aluminum stearate.....	195,535	70
Asbestine or talc.....	17,335,425	479
Barytes.....	2,487,731	104
Bentonite.....	371,648	225
Blanc fixe.....	538,154	41
Calcium carbonate (whiting and chalk).....	33,396,999	723
Calcium stearate.....	27,549	9
Diatomaceous earth ("Dicalite", kieselguhr, "Celite", etc.).....	2,714,536	172
Kaolin or china clay.....	4,915,835	178
Mica.....	1,780,195	117
Silica sand and ground quartz.....	2,749,599	123
Zinc stearate.....	55,867	21
Other extender pigments.....	12,407,053	655
Oils:		
Linseed oil:		
Raw.....	7,058,209	1,170
Other grades (boiled, blown, heat-boiled, etc.).....	15,111,458	2,735
Castor oil:		
Raw.....	880,951	174
Dehydrated.....	615,503	166
Chinawood (tung) oil.....	2,142,086	814
Fish oils.....	226,120	59
Silicone oil.....	12,724	25
Soya bean oil.....	10,687,395	1,365
Sunflower oil.....	798,938	116
Tall oil.....	2,195,877	225
Other oils.....	2,523,710	408
Resins:		
Natural:		
Rosin.....	1,610,890	249
Other.....	318,799	64

See footnote at end of table.

TABLE 4. Materials and Supplies Used in Manufacturing Activity, 1962 - Concluded

Description	Quantity	Cost
	lb.	\$'000
1. Materials used - Concluded:		
Resins - Concluded:		
Synthetic:		
Acrylic	1,904,359	559
Styrenated alkyds	1,694,798	400
Other alkyds	30,601,730	5,798
Amines	1,256,262	409
Epoxy	1,663,873	915
Ester gum	1,141,682	284
Maleics	894,003	248
Pure phenolics	971,174	384
Modified phenolics	1,395,125	398
Urea-formaldehyde	560,746	194
Vinyls	1,466,293	502
Other	2,593,466	692
Shellac:		
Orange	115,648	38
Bleached	680,198	310
Other	178,331	65
Solvents:		
Acetone	1,238,235	111
Alcohol:		
Butyl (including isobutyl)	2,839,309	481
Ethyl (denatured or not)	2,285,563	208
Isopropyl	2,579,433	225
Methyl (wood or methylated spirits)	1,006,584	106
Amyl acetate	65,027	13
Butyl acetate	2,619,486	407
Butyl "Celtosolve"	412,506	107
"Cellosolve" acetate	425,934	98
Coal tar solvents:		
Benzol	289,896	18
Toluol	16,759,810	686
Xylol	17,086,724	760
Other coal tar solvents	2,915,672	147
Dibutyl phthalate	226,372	67
Ethyl acetate	2,055,528	238
Methylene chloride	863,612	122
Methyl amyl acetate	344,381	59
Methyl ethyl ketone	683,245	134
Methyl isobutyl ketone	1,636,887	279
Petroleum distillates	79,260,292	2,763
Propyl acetate	1,811,094	191
Turpentine	2,054,147	116
Other paint, varnish and lacquer solvents and plasticizers	7,460,535	1,037
Driers:		
Naphthenates	2,388,359	699
Other driers	352,049	129
Miscellaneous:		
Acid, fatty	3,216,952	599
Asphalt	3,202,327	138
Carboxymethylcellulose	113,012	96
Casein	151,150	157
Chlorinated rubber	387,187	214
Formaldehyde (100% solids content)	417,540	50
Glycol, ethylene	962,522	176
Glycols, other (mono, di, tri, etc.)	1,400,607	228
Glycerine	2,471,912	663
Latex emulsion	10,434,329	2,203
Nitrocellulose	3,950,626	1,379
Pentaerythritol	3,436,720	991
Phthalic anhydride	11,549,138	1,546
Pitch, coal tar	1,427,184	93
Sodium bichromate	133,587	19
Varnishes	2,882,099	630
Wax (beeswax, carnauba, paraffin, etc.)	459,386	137
All other materials and components used ¹ .....	...	8,976
2. Containers and other packaging materials and supplies used		10,791
3. Operating, maintenance and repair supplies used (excluding fuel)		1,308
4. Amount paid out to others for work done on materials owned by establishments		120
Total		79,713

¹ See Explanatory Notes.

² No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. In 1962 these estimated costs were \$2,778,500.

TABLE 5. Fuel and Electricity Used¹ in Manufacturing Activity,² 1962

Basis: Revised Standard Industrial Classification and New Establishment Concept³

Description	Quantity	Cost
		\$'000
1. Large establishments which reported commodity detail:		
Bituminous coal:		
(a) From Canadian mines	ton 755	12
(b) Imported	" 3,972	45
Sub-bituminous coal (from Alberta mines only)	—	—
Anthracite coal	ton 24	--
Lignite coal	" 17	--
Coke	" 260	5
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 216,263	87
Fuel oil including kerosene or coal oil	" 3,472,005	335
Wood	cord 5	--
Gas:		
(a) Liquefied petroleum gases	Imp. gal. 10,058	4
(b) Other manufactured gas	—	—
(c) Natural gas	M cu. ft. 97,028	95
Other fuel .....	...	5
Electricity purchased	kwh. 29,960,593	413
Steam purchased .....	...	17
2. Estimate for small establishments for which no data were collected:		
Fuel and electricity .....	...	55
3. All establishments:		
Total fuel and electricity used .....	...	1,073

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

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

³ See Explanatory Notes.

TABLE 6. Shipments of Goods of Own Manufacture, 1962

Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Description	Quantity	Cost
		\$'000
1. Products:		
Paste paints (not including water-paste paints)	lb. 918,298	241
Semi-paste paints (not including water-thinned type)	Imp. gal. 168,979	686
Ready mixed paints and enamels — Exterior type	" 10,691,863	45,047
Interior type	" 11,653,424	53,004
Water-thinned paints and enamels:		
Latex base emulsion paints	" 4,953,878	20,731
Resin and other bases emulsion paints (paste and semi-paste)	" 246,464	995
Casein and other protein bound, glue bound:		
Dry	lb. 449,341	65
Plastic texture, paste and dry	" 153,990	20
Calcimines	" 577,220	72
Lime and cement bound	" 1,917,045	248
Other water-thinned paints .....	...	245

See footnote at end of table.

TABLE 6. Shipments of Goods of Own Manufacture, 1962 - Concluded

Description		Quantity	Value
			\$'000
1. Products - Concluded:			
Lacquers - Cellulose types	Imp. gal.	2,861,968	9,062
Non-cellulose types	"	231,871	958
Stains (including varnish stains)	"	338,031	1,199
Thinners and reducers	"	3,567,704	5,317
Varnishes (for interior and exterior use including shellac varnish, natural and synthetic resin base varnishes, japans, etc. but excluding next item)	"	2,664,504	9,173
Insulating varnishes, electrical types	"	78,756	254
Colours in oil (except white lead)	"	59,611	397
Floor wax	"	...	56
Paint and varnish removers	Imp. gal.	139,335	488
Patching materials - For walls (including joint filler and cement)	ib.	13,069,555	1,164
For floors	"	999,544	237
Wood and metal sash putties	"	9,371,056	1,727
Wall size and other sizing materials	"	95,552	30
All other products	"	...	9,861
2. Amount received in payment for work done on materials and products owned by others			22
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above			(834)
Net adjustment for establishments receiving progress payments ²			...
Total adjusted value of shipments and work done			160,462

¹ See Explanatory Notes.

² See footnote 1, Table 7.

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

Province	Manufacturing				Non-manufacturing	Total inventories ³	
	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total manufacturing	Products or materials purchased for resale		
book value \$'000							
Opening: ³							
Newfoundland	}						
Nova Scotia		442	7	502	951	27	978
New Brunswick							
Quebec		2,884	232	8,472	11,588	1,477	13,066
Ontario		5,584	1,672	8,758	16,014	649	16,663
Manitoba	}						
Saskatchewan		791	36	679	1,506	126	1,632
Alberta							
British Columbia		1,093	174	2,298	3,565	499	4,064
Totals ⁴		10,794	2,121	20,709	33,624	2,778	36,402
Closing:							
Newfoundland	}						
Nova Scotia		414	22	695	1,131	28	1,159
New Brunswick							
Quebec		2,768	201	8,102	11,071	1,381	12,452
Ontario		6,605	1,763	9,501	17,869	732	18,602
Manitoba	}						
Saskatchewan		689	36	690	1,415	175	1,590
Alberta							
British Columbia		1,111	218	2,047	3,376	457	3,833
Totals ⁴		11,587	2,240	21,035	34,862	2,773	37,635

¹ Values represent book values of inventories owned in Canada. Inventories held for which progress payments have been received are not included. Where progress payment accounts are maintained the change in these accounts is treated as a net adjustment to shipments.

² See Explanatory Notes.

³ The opening inventories may differ from the closing inventories for the previous survey year because of changes in classification, the receipt of revised data, the inclusion of new establishments and the removal of establishments which did not operate during the survey year.

⁴ Figures may not add due to rounding.

⁵ The differences between figures in this table and those in Table 2 arise from firms reporting output of products on the basis of production rather than shipments. Consequently, inventories of finished products for such respondents are not taken into account for purposes of compiling value added in Table 2.

TABLE 8. Shipments of Goods of Own Manufacture - All Industries¹
A. Paints and Varnishes, 1958-62

Year	Value
	\$'000
1958	135,207
1959	140,620
1960	140,160
1961	145,062
1962	151,813

Note: The totals for factory shipments include thinners, paint and varnish removers, ready mixed paints, paste and semi-paste paints, water thinned paints, varnishes and shellacs, lacquers and stains.

B. Putty, 1953-62

Year	Quantity	Value
	lb.	\$'000
1953	11,159,000	814
1954	10,341,000	789
1955	11,768,000	836
1956	12,581,000	1,007
1957	12,833,000	1,094
1958	16,207,000	1,621
1959	12,137,000	1,468
1960	13,776,000	1,676
1961	12,999,000	1,823
1962	13,806,000	2,086

¹ Includes shipments from other industries which manufacture, as a secondary activity, the commodities listed above.

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	638	1,449	2,087	318	962	1,280	956	2,411	3,367

Source: Business Finance Division. - DBS.

List of Establishments, 1962

Name of firm	Location of plant
Newfoundland:	
Standard Mfg. Co., Ltd.	St. John's
Nova Scotia:	
Brandram-Henderson, Divn. Canadian Industries Ltd.	Halifax
Tibbets Paint Limited	Trenton
New Brunswick:	
Maritime Paint and Chemical Co., Ltd.	Moncton
Quebec:	
Acme Industries Co.	Montreal
Alpeco Paint Co. Ltd.	Lachine
Brandram-Henderson, Divn. Canadian Industries Ltd.	Montreal
Canadian Industries Limited	Montreal
Canadian Pittsburgh Industries Ltd.	Montreal
Charters Chemical Ltd.	Montreal
Chateau Paint Works Inc.	Montreal
Coatwell Paint and Varnish Co., Ltd.	Montreal
Conant Paints Ltd.	Montreal
Crown Diamond Paint Co. Ltd.	6629 St. Andre, Montreal
Continental Paint and Varnish Works Ltd.	Outremont
Durity Paint and Lacquer Co., Ltd.	Montreal
Ferox Coatings Inc.	Montreal
Gallant Paint Ltd., The	Ville St. Michel
Glidden Co. Ltd., The	Charlemagne
Industrie Pèpin	Montreal
International Lacquer Products Ltd.	Cowansville
International Paints (Canada) Ltd.	Montreal
Joliet Paint and Varnish Reg'd	Montreal
La Cie des Peintures et Vernis Modèle	Ville Jacques-Cartier
La Cie de Peintures et Vernis Mont Royal, Ltée	Montreal
Lacquer Products Co., Limited	Granby
Moore, Benjamin and Co. Ltd.	Ville St. Michel
Norlantic Paint Co. Ltd.	Ste. Rose de Laval
O'Neil Paints Inc.	Montreal
P.V.R. Company Ltd.	Montreal
Peinture Bertrand Paints Inc.	Ville St. Michel
Peinture National, Ltée	Quebec
Peinture Sico Ltée (Sico Paint Ltd.)	Giffard
Peinture Style, Ltée	St Pierre de Sorel
Protective Coatings Ltd.	Outremont
R.S. Chemicals Co.	Montreal
Reardon Company, Limited	8855 Cresent Two, Montreal
Reliance Varnish Co. of Canada Ltd.	Daveluyville
Sherwin-Williams Co. of Canada Ltd.	Montreal
Simon Chemical Co. Ltd.	Ville St. Michel
Uni Chem Products Mfg. Co.	Montreal
United Paint Co.	Montreal
Walsh, Robert, Co., Ltd.	Montreal
Wesco Water Paints (Canada) Ltd.	Montreal
Zenith Paint, Incorporated	Montreal
Ontario:	
Acme Paint and Varnish Co. Ltd.	Long Branch
Allied Specialty Mfg. Co. Ltd.	Toronto
Alma Paint and Varnish Co. Ltd.	London
Armour Products	Windsor
Aulcraft Paints Ltd.	Toronto
Brampton Paint Co.	Brampton
British Paints (Canada) Ltd.	Oakville
Burnett & Son Luminous Products	35 Ferncroft Dr., Scarborough
Canada Varnish Limited	Leaside
Canadian Industries Limited	Toronto
Canadian Industries Limited	Toronto
Canadian Pittsburgh Industries Ltd.	Long Branch
Canadian Pittsburgh Industries Ltd. (Paint Div.)	Windsor
Cosmos Chemical Co., Ltd.	Port Hope
Decor Paint & Chemical Co. Ltd.	Concord
Docco Mfg. Co.	Willowdale
Dontar Construction Materials Ltd.	Paris
Dupont Canada Ltd.	Ajax
Essex Paint Co.	Windsor
Everguard Coatings International Ltd.	Niagara Falls
Ferns, J.L.	Waldemar
Glidden Co., Limited	Toronto
Goudey, John E., Manufacturing Ltd.	Toronto
Hamilton Paint and Varnish Works Ltd.	Hamilton
Hannah Varnish Company, Limited	Glen Morris
Heaman Paint Company Ltd.	London
Imperial Flo-Glaze Paints Ltd.	Toronto
Industrial Lacquer Specialties Ltd.	Toronto
Iroquois Industrial Chemicals Ltd.	Comwall
Jacroy Canada Ltd.	Scarborough
Lakeside Varnish & Lacquer Mfg. Co., Ltd.	York Twp., Toronto
MacDonald & White Varnish & Paint Co., Ltd.	Riverside

List of Establishments, 1962 - Concluded

Name of firm	Location of plant
Ontario - Concluded:	
MacNaughton Brooks Ltd.	Toronto
Masse Manufacturing Co., Ltd.	Toronto
Master Paint & Varnish Co. (Hamilton) Ltd.	Hamilton
Maurice Paint Co. Ltd.	170 Toryork Drive, Weston
Mechanical Dry Wall Eastern Ltd.	Rexdale
Mercury Varnish Co., Ltd.	St. Catharines
Mitchell Colour & Chemical Company Ltd.	Toronto
Moore, Benjamin, and Co., Ltd.	Toronto
National Paint Products	Toronto
Niagara Paint & Chemical Co., Ltd.	Hamilton
Northern Paint & Varnish Co., Ltd.	Owen Sound
Ocean Chemicals (Canada) Ltd.	Scarboro
O.P.W. Paints Ltd.	Ottawa and Walkerville
Paralac Paint and Varnish Mfg. Co.	Toronto
Para Paint Ltd.	Rexdale
Penfound Varnish Company, Limited	Rexdale
Pfeiffer Paint Co. Ltd.	25-6th Ave., Kitchener
Pierce & Stevens Canada Ltd.	Fort Erie
Plastoid of Canada Ltd.	Toronto
Pratt and Lambert, Inc.	Fort Erie North
Protek Paint and Varnish Co.	New Toronto
Rex Paint and Varnish Co. Ltd.	Humber Summit
Rinshead-Mason Co. of Canada Ltd.	Windsor
Roxalin of Canada, Limited	Toronto
Scarfe and Company Limited	Brantford
Shamrock Paint and Varnish Works	King
Sherwin Williams Co. of Canada Ltd.	Toronto
Smyth John, Manufacturing Company	Brantford
Spence, W.R., Industries Ltd.	Toronto
Starlac Company	Toronto
Sterling Varnish Co. of Canada Ltd.	St. Catharines
Sturgeons, Limited	Toronto
Supreme Paint Manufacturing Company	Toronto
Tone-Craft Paint and Varnish Co., Ltd.	Toronto
Tremco Manufacturing Co. (Canada) Ltd.	Toronto
United Finish Co. (Canada) Ltd.	Cobourg
Universal Asphalt Mastic Products Co.	Toronto
Webb Products Co. (Canada) Ltd.	Toronto
Manitoba:	
Guertin Bros. (Paint) Ltd.	Winnipeg
International Laboratories, Ltd.	St. Boniface
Northern Paint Company, Ltd.	Winnipeg
Phillips Paint Products Ltd.	Winnipeg
Sherwin-Williams Co. of Canada, Ltd.	Winnipeg
Stephens Paints Ltd.	Winnipeg
Saskatchewan:	
International Paints Canada Ltd.	Regina
Alberta:	
Moberg Laboratories of Canada Ltd.	Edmonton
Plastiglo Industries Ltd.	Edmonton
British Columbia:	
Brandram-Henderson Divn. Canadian Industries, Ltd.	Vancouver
British America Paint Co. Ltd.	Victoria
Canadian Elastileum Ltd.	Richmond
Canadian Pittsburgh Industries Ltd.	North Vancouver
Cloverdale Paint and Chemicals Ltd.	North Surrey
G.R. Chemicals Ltd.	Vancouver
General Paint Corporation of Canada Ltd.	Vancouver
Goodacre Alfred A.	Burnaby
Henderson, Geo., C., Co., Ltd.	3955 Myrtle St., Burnaby
International Paints (Canada) Ltd.	North Vancouver
Isles Products Ltd.	Vancouver
Moore, Benjamin, and Co. Ltd.	New Westminster
North West Paint and Chemicals Ltd.	Vancouver
Paramount Paint and Lacquer Co. of Canada Ltd.	Vancouver
Spectrum Chemicals Ltd.	New Westminster
Sherwin-Williams Co. of Canada, Ltd.	New Westminster
Synkoloid Co. of Canada Ltd.	North Surrey
Walker Bros., Limited	Burnaby

EXPLANATORY NOTES

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

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

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

Standard Industrial Classification

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

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

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

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

Establishment

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

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

"The smallest unit which is a separate operating entity capable of reporting all the following principal statistics:

Materials and supplies used,
Goods purchased for resale as such,
Fuel and power consumed,
Number of employees and salaries and wages,
Inventories,
Shipments or sales."

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

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

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

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

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.² Adjustments were made to the value of shipments for the period 1957-60 to reflect such changes and maintain continuity of the shipments data. Since no actual data to make these corrections were available for back years, 1961 adjustment ratios were applied to the previous years for each industry affected, on the assumption that the valuation changes in 1961 applied in equal proportions to the preceding period.³

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

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

³ See footnote 1.

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

1. Single-Establishment Companies

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

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

2. Multi-Establishment Companies

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

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

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

⁴ See footnote 2 for exceptions.

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

Period Covered

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

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

Working Owners or Partners

Beginning with the revised 1961 statistics working owners and partners of unincorporated businesses are shown as a separate category in the principal statistics and are neither included in the number of employees nor in salaries and wages; there is some duplication in numbers when a person owns more than one establishment and is reported as a working owner on each census return. In all previous reports of the Census of Manufactures these workers were included as part of the number of administrative and office employees and their withdrawals were included as part of salaries. Withdrawals are defined as amounts withdrawn by owners or partners for normal living expenses, excluding withdrawals for payment of income tax.

Number of Establishments

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

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

Employees

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

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

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

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

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

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

Man-hours of production and related workers in manufacturing activities represent total man-hours paid (total hours at work during the calendar year plus hours not worked but nevertheless paid for, such as paid vacations, sick leave, statutory holidays etc.). In reporting overtime hours, respondents are requested to report only hours actually at work. It should be noted that the division of hours paid into production and related workers payrolls results in **average** hourly earnings and does **not** represent hourly wage rates which are collected and published by the Department of Labour and which are based on selected occupations.

Salaries and Wages

Salaries and Wages refer to gross earnings of the employees described above, **before** deductions for income tax and employees' contributions to social services such as sickness, accident and unemployment insurance, pensions etc. They include all salaries, wages, bonuses, profits shared with employees, the value of room and board where provided, commissions (paid to regular employees only), as well as any other allowance forming part of the workers' earnings. Payments for overtime are included.

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

Fuel and Electricity

Figures for fuel refer to amounts actually used (including fuel used in cars, trucks, locomotives etc.) not to purchases unless the quantities are

substantially the same. **Any fuel and electricity produced by establishments for internal consumption are not included in the total cost.** Values represent laid-down cost at the establishment including freight, duty etc.

Materials and Supplies

(a) Used in manufacturing activities. Figures represent quantities and laid-down cost values, at the establishment, of materials, supplies and purchased components owned and used during the year in manufacturing activities and related processes. The statistics represent only commodity items or physical goods (costs of services or overhead charges such as advertising, insurance, depreciation etc. are not included) whether purchased from others or received as transfers (in the form of materials, components or semi-processed goods) from other establishments of the reporting company. Respondents are required to report materials and supplies **used not purchased**. Included are maintenance and repair supplies not chargeable to fixed assets accounts and any amounts charged by other establishments for work done on materials owned by the reporting establishment. Cost of repairs or maintenance done by outside contractors and cost of returnable containers are not included.

(b) Purchases for resale as such. Figures represent the cost of materials or products purchased from others by the reporting establishment (or received as transfers from other establishments of the reporting company) for re-sale as such in the same condition as purchased. Included are any finished products received on consignment from other countries.

(c) Other materials and supplies used. Figures represent the cost of materials and supplies, if any, used in new construction and in the production of machinery and equipment (for the use of the reporting establishment) by the establishment's own employees. Included are materials used for any capital repairs and alterations carried out by the establishment's employees. Value of construction and repair work done by outside contractors is not included nor is the cost of purchased machinery and equipment. Also included is the cost of office supplies not chargeable to fixed assets accounts and the cost of such other items of materials and supplies used as food, beverages and supplies for establishment-operated cafeterias and lunch counters, first aid medical supplies, laboratory supplies etc.

Shipments

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

(a) Shipments of goods of own manufacture

These figures represent shipments of goods made from own materials either in the reporting establishments or by other manufacturers on the basis of a charge to the reporting establishments for work done. Included are revenue from repair and custom work, amounts received in payment for work done on materials owned by other establishments and the cost of any goods shipped on a rental basis.

All products and by-products of own manufacture shipped from the establishment are covered, including transfer shipments to sales outlets, distributing warehouses or to other manufacturing plants of the reporting firm when such units are treated as separate establishments. (See notes on "Establishment").

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

The unsold portion, at year-end, of consignment shipments in Canada, is treated as inventory and not as shipments, but all shipments to foreign countries, for which form B.13 "Customs Canada, Export Entry" has been completed, are treated as shipments.

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

(b) Shipments of goods not of own manufacture

These figures represent the net selling value at the establishment (less discounts, returns, allowances, sales taxes and excise duties and transportation charges by common or contract carriers) of all products or materials (including products transferred from other establishments of the reporting firm) sold as such in the same condition as purchased or received as transfers. For those industries which ship goods on a rental basis value of shipments represents the book value of such goods. All sales of consignment goods from other countries are included.

(c) Other revenue

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs and alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishments' own employees and for which depreciation accounts are maintained. Included also are any revenues from the sale of electricity and from any operations performed by the establishments' own employees, such as revenue from goods produced for rental (the book value of such goods are included as part of factory shipments), servicing revenues, commissions on sales (when not included in value of sales), revenue from company-operated cafeterias and lunch counters and revenue from outside installation or construction work not related to the establishments' own products, sale of used materials (excluding sale of used fixed assets), research and development work etc. As mentioned previously the figures do not include non-operating revenue such as rent, dividends, interest, etc.

Inventories

(a) Manufacturing inventory

Values represent the book value of manufacturing inventory owned in Canada. The value of inventory held for which progress payments have been received is treated as shipments and is not included in inventory owned. Figures consist of inventory owned at the plant and at warehouses or selling outlets which are treated as extensions of establishments for the purpose of reporting shipments. Inventory owned in transit in Canada or on consignment in Canada is included. Inventory owned abroad has already been reported as shipments and is excluded.

(b) Inventory of goods purchased for re-sale

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

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

Value Added

(a) By manufacturing activities

Figures are compiled by deducting the cost of materials and fuel and electricity consumed from the value of production (value of shipments adjusted for changes in the value of inventories of finished goods and goods in process).

(b) By total activities

Figures consist of value added by manufacturing activities plus value added by non-manufacturing activities and is compiled by deducting the cost of goods purchased for re-sale and the cost of other materials and supplies used from the value of shipments of goods not of own manufacture plus other revenue, adjusted for changes in the value of inventories of goods purchased for re-sale.

"Value added" is sometimes referred to as net production. However, to arrive at the National Accounts concept of net production, or "Gross domestic product at factor cost", it would be necessary to subtract also the cost of advertising, insurance and other business expenses which are not collected in the annual Census of Manufactures. "Value added" figures for the primary industries, manufacturing and construction are published in DBS publication Catalogue No. 61-202, Survey of Production.

Short Forms

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

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

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

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

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

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